

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17****RIN 1018-AT42****Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arroyo Toad (*Bufo californicus*)****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 arroyo toad (*Bufo californicus*) pursuant to the Endangered Species Act of 1973, as amended (Act). In total, approximately 11,695 acres (ac) (4,733 hectares (ha)) fall within the boundaries of the critical habitat designation. The critical habitat is located in Santa Barbara, Ventura, Los Angeles, San Bernardino, and Riverside, Counties, California.

DATES: *Effective Date:* May 13, 2005.

ADDRESSES: Comments and materials received, as well as supporting documentation used in the preparation of this final rule, are available for public inspection, by appointment, during normal business hours at the Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2493 Portola Road, Suite B, Ventura, CA 93003 (telephone 805/644-1766). The final rule, economic analysis, and maps will also be available via the Internet at <http://Ventura.fws.gov> or <http://Carlsbad.fws.gov>.

FOR FURTHER INFORMATION CONTACT: For information about Monterey, San Luis Obispo, Santa Barbara, and Ventura Counties, northern Los Angeles County, and the desert portion of San Bernardino County, contact Diane K. Noda, Field Supervisor, Ventura Fish and Wildlife Office, at the address given above (telephone 805/644-1766; facsimile 805/644-3958). For information about Los Angeles, San Bernardino, Riverside, Orange, and San Diego Counties, contact Jim Bartel, Field Supervisor, Carlsbad Fish and Wildlife Office, at the address given above (telephone 760/431-9440; facsimile 760/431-9624).

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 470 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 two courts found our definition of adverse modification to be invalid (March 15, 2001, decision of the United States Court Appeals for the Fifth Circuit, *Sierra Club v. U.S. Fish and Wildlife Service et al.*, F.3d 434 and the August 6, 2004, Ninth Circuit judicial opinion, *Gifford Pinchot Task Force v. United State Fish and Wildlife Service*). In response to these decisions, we are reviewing the regulatory definition of adverse modification in relation to the conservation of the species.

Procedural and Resource Difficulties in Designating Critical Habitat

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

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

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

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with 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

Background information on the arroyo toad can be found in our previous final designation of critical habitat for this

species, published in the **Federal Register** (FR) on February 7, 2001 (66 FR 9414). Additional background information is also available in our recent proposal of critical habitat for the arroyo toad, published on April 28, 2004 (69 FR 23253). That information is incorporated by reference into this final rule. This rule, which becomes effective on the date listed under *Effective Date* at the beginning of this document, replaces the February 7, 2001, critical habitat designation for this species.

Previous Federal Actions

We designated a total of approximately 182,360 acres (ac) (73,780 hectares (ha)) of critical habitat for the arroyo toad on February 7, 2001 (66 FR 9414). On November 6, 2001, the Building Industry Legal Defense Foundation, Foothill/Eastern Transportation Corridor Agency, National Association of Home Builders, California Building Industry Association, and Building Industry Association of San Diego County filed a lawsuit in the District of Columbia against the Service challenging the designation of arroyo toad critical habitat and alleging errors by the Service in promulgating the final rule. *Building Industry Legal Defense Foundation, et al. v. Gale Norton, Secretary of the Interior, et al.* Civ. No. 01-2311 (JDB) (D.D.C.). On October 30, 2002, the court set aside the designation and ordered us to publish a new critical habitat designation final rule for the arroyo toad by July 30, 2004. On April 28, 2004, we published a proposed rule to designate approximately 138,713 acres (ac) (56,133 hectares (ha)) of critical habitat in Monterey, Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego Counties, California (69 FR 23253). On June 25, 2004, the Court granted a motion by the Service to extend the deadline for the final rule to March 31, 2005. On February 14, 2005, we published a notice announcing the availability of the draft economic analysis (DEA), revisions to the proposed rule, and reopening of the public comment period (70 FR 7459).

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the arroyo toad in the proposed rule published on April 28, 2004 (69 FR 23253). We also contacted the appropriate Federal, State, and local agencies, Tribes, scientific organizations, and other interested parties and invited them to comment on the proposed rule. In addition, we

invited public comment through the publication of notices in the Monterey Herald on May 1, Ventura County Star on May 4, the Orange County Register on May 7, the San Diego Union Tribune on May 8, and the Santa Barbara News Press on May 12, 2004. We did not receive any written requests for a public hearing prior to the published deadline. The initial comment period ended May 28, 2004. A second comment period was open from February 14, 2005 to March 16, 2005 (70 FR 7459). All comments and new information received during the two comment periods have been incorporated into this final rule as appropriate.

A total of 60 commenters responded during the two comment periods, including 5 Federal agencies, 3 Tribes, 11 local agencies, 9 local organizations, 10 businesses and 5 individuals. Ten commenters submitted two separate sets of comments. During the comment period that opened on April 28, 2004, and closed on May 28, 2004, we received 42 comments directly addressing the proposed critical habitat designation: 2 from peer reviewers, 5 from Federal agencies, and 3 from Tribes. Of the 42 parties responding to the proposal during the first comment period, 12 supported the proposed designation, 30 were opposed (including those who thought we should have proposed more areas for critical habitat designation), and a few commenters simply provided additional information. During the second comment period that opened on February 14, 2005, and closed on March 16, 2005, we received 18 comments directly addressing the proposed critical habitat designation and DEA. Of these latter comments, 2 were from a Federal agency, 1 from a Tribe, 5 from local jurisdictions, 7 from businesses, and 3 from organizations or individuals. During the second comment period a total of 4 commenters supported the designation of critical habitat for the arroyo toad, and 14 opposed the designation. We reviewed all comments for substantive information and new data regarding the arroyo toad and its critical habitat. Comments have been grouped together by issue and are addressed in the following summary. All comments and information have been incorporated into the final rule as appropriate.

Peer Review

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited independent opinions from at least three knowledgeable individuals who have expertise with the species, with the

geographic region where the species occurs, and/or familiarity with the principles of conservation biology. Of the five individuals contacted, three responded. The peer reviewers that submitted comments generally supported the proposal and provided us with comments, which are included in the summary below and incorporated into the final rule, as appropriate. Unless otherwise noted, the peer review comments were on our proposed rule published April 28, 2004; subsequent changes to our proposal published in the **Federal Register** on February 14, 2005 (70 FR 7459) and in this final rule did not receive peer review comment.

Peer Review Comments

(1) *Comment:* A peer reviewer who conducts research on a variety of toad species at an academic institution found our proposal to be based on natural history studies that range in quality from perfectly adequate to superior. He commended us for basing much of our proposed rule on competent, truly scientific research. It was his opinion that the basic biology of the arroyo toad had been adequately reviewed and competently applied to the selection, delimitation, and designation of proposed sites. He endorsed the proposal and found it to be based on adequate research.

Our Response: As noted by the peer reviewer, we have considered and applied every important study involving arroyo toads that is relevant to its ecology and protection that we could obtain.

(2) *Comment:* A peer reviewer who has extensive experience studying the dispersal of arroyo toads, and has conducted studies within nearly one-third of the critical habitat units across the range of the species, commented that our proposed critical habitat units are accurately characterized, appropriately referenced, do not exclude any local arroyo toad populations in the specific units he is familiar with, and include all breeding and upland habitats necessary for the long-term survival of the local populations.

Our Response: We have identified all habitats that have the essential features, or primary constituent elements (PCEs) (see Primary Constituent Element section below), necessary for the conservation of the species. A portion of these essential areas are included in this final designation of critical habitat for the arroyo toad. Some essential areas have been excluded from critical habitat designation under section 4(b)(2) of the Act, primarily for economic reasons (see Application of Section 3(5)(A) and

4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section below for a detailed discussion). After receipt of public and peer review comments, we revised the model we used to delineate essential and critical habitat, which is outlined in the February 14, 2005, **Federal Register** Notice (70 FR 7459) and this final rule (see Summary of Changes and Criteria Used to Identify Critical Habitat sections).

(3) *Comment:* A peer reviewer expressed concern that our choice of words in the Background section might imply that arroyo toads located at higher elevations move shorter distances than those found at lower elevations near the coast.

Our Response: The studies we cited in the proposed rule (e.g., Griffin 1999; Holland and Sisk 2000; Ramirez 2002a, 2002b, 2002c, 2003) indicate that arroyo toads found along streams with broad floodplains in coastal areas move farther into the uplands than those found along streams away from the coast with steeper slopes bordering the stream corridor. Although coastal areas may be at lower elevations, we suspect that it is the moderating effect of the ocean on coastal climates, including frequent fog, that may allow arroyo toads to disperse farther from a source of water without dehydrating, and that moderate slopes adjacent to a coastal stream corridor do not inhibit dispersal. More extreme temperatures and arid conditions away from the coast may inhibit dispersal by arroyo toads from a water source. Although arroyo toads can ascend and descend rather steep slopes, a sustained, steep gradient would likely inhibit dispersal. The elevation at which arroyo toads are found should have no influence on their willingness or ability to disperse from a water source.

(4) *Comment:* A peer reviewer suggested that we clarify our use of critical habitat regional classification units (northern, southern, and desert regions).

Our Response: We have organized the critical habitat units for the arroyo toad into three regions (northern, southern, and desert regions) that reflect both the range of the species and the distinct ecological environments in which the species is found, similar to the system used in the recovery plan for the arroyo toad (Service 1999).

(5) *Comment:* A peer reviewer suggested that we clarify our statement about the use of areas with compact soils by arroyo toads.

Our Response: Arroyo toads typically dig their own burrows in sandy soils or soft substrates where they remain underground during periods of inactivity (Service 1999). However, they

have also been found in areas with harder, compact soils where they cannot burrow. In these cases, arroyo toads are likely using preexisting mammal burrows, or they are temporarily using these areas for foraging and dispersal at night and returning to areas where they can burrow prior to sunrise.

(6) *Comment:* A peer reviewer suggested that, in addition to agricultural fields, toads are found in orchards.

Our Response: Although toad may use orchards, the likelihood of long-term persistence in this altered habitat is unknown and would depend on the level of agricultural activity. To the extent that heavy equipment and pesticides are used in an orchard, along with periods of intense human activity, mortality rates could exceed reproductive rates in and around a stream segment bordered by orchards. However, it is possible that resident toads may be able to survive in orchard areas set back from the floodplain that do not require intensive management or harvest practices.

(7) *Comment:* A peer reviewer stated that our discussion concerning the value of designating critical habitat, and the procedural and resource difficulties involved, should be addressed in a different forum, not in a critical habitat rule.

Our Response: As discussed in the sections "Designation of Critical Habitat Provides Little Additional Protection to Species," "Role of Critical Habitat in Actual Practice of Administering and Implementing the Act," and "Procedural and Resource Difficulties in Designating Critical Habitat" and other sections of this and other critical habitat designations, we believe that, in most cases, conservation mechanisms provided through section 7 consultations, the section 4 recovery planning process, the section 9 protective prohibitions of unauthorized take, section 6 funding to the States, the section 10 incidental take permit process, and cooperative programs with private and public landholders and tribal nations provide greater incentives and conservation benefits than does the designation of critical habitat.

(8) *Comment:* After examining the changes to our proposal published in the **Federal Register** on February 14, 2005 (70 FR 7459), one peer reviewer stated that the training activities of the military at Fort Hunter Liggett may have resulted in riparian habitat modifications that may be beneficial to the arroyo toad. The peer reviewer further noted that the military also prevents nonmilitary personnel from visiting the area which helps prevent

the introduction of nonnative predatory aquatic vertebrates.

Our Response: We agree that although some toads would be killed outright by ordinance, crushing by vehicles, prescribed burning, channel clearing, or other actions undertaken by the military, in some instances the resulting habitat modifications may enhance arroyo toad habitat, which favor more open habitats. It is unclear to what extent habitat modifications resulting from military actions have affected arroyo toad numbers at Fort Hunter Liggett, either positively or negatively. We also agree that minimizing human access to arroyo toad habitat is generally beneficial and can prevent the introduction of nonnative predatory aquatic vertebrates. However, certain nonnative predatory aquatic vertebrates have already become established at Fort Hunter Liggett, including bullfrogs. All military actions affecting arroyo toad habitat at Fort Hunter Liggett have been addressed in the Army's Endangered Species Management Plan for the arroyo toad at Fort Hunter Liggett, which is one of the primary reasons why we have excluded Fort Hunter Liggett from critical habitat designation (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section).

Comments Related to Previous Federal Actions, the Act, and Implementing Regulations

(9) *Comment:* One commenter stated that, according to the Tenth Circuit Court of Appeals finding in *Catron County Board of Commerce, New Mexico v. United States Fish and Wildlife Service*, 75F.3d 1429 (10th Cir 1996) (*Catron v. FWS*), we are required to prepare an environmental assessment or environmental impact statement before designating critical habitat.

Our Response: The commenter is correct in that the Tenth Circuit Court of Appeals determined that an environmental assessment or environmental impact statement as part of NEPA should be prepared before designating critical habitat. However, it is our position that, outside the jurisdictional area of the Tenth Circuit Court, we do not need to comply with NEPA in connection with designating critical habitat under the Act. 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 by the Ninth Circuit Court (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. Ore. 1995), cert. denied 116 S. Ct. 698 (1996)).

(10) *Comment:* Several commenters stated that the arroyo toad is everywhere in California and Mexico and that there is not enough scientific evidence proving that this species is really endangered, and therefore does not need protection under the Act.

Our Response: The commenters may be confusing the arroyo toad with several other species of toads in the genus *Bufo* occurring in California and Mexico. The arroyo toad is just one species of toad, and the distribution of the arroyo toad is limited to central and southern California and northwestern Baja California, Mexico. While our knowledge of the arroyo toad's distribution in southern California has increased since it was listed in 1994, the species continues to be threatened by habitat destruction and alteration, over-collection, predation by introduced predatory fish, and inadequacy of existing regulatory mechanisms (59 FR 64859).

(11) *Comment:* One commenter stated that critical habitat will unnecessarily burden the regulated public and has overloaded Service staff.

Our Response: Critical habitat designations do not by themselves constitute a burden in terms of Federal laws and regulations on private landowners carrying out private activities, but in California they may trigger additional State regulatory reviews and other requirements under the California Environmental Quality Act and other State laws and regulations. When a Federal approval or permit is required, or Federal funds are involved with a project proposed on private property, the critical habitat designation does impose a Federal regulatory burden for private landowners; absent this, the designation should not affect farming and ranching activities on private lands. Similarly, a Federal nexus could result in the designation affecting future land use plans, and the designation may trigger State requirements which could impact such plans.

Comments Related to Critical Habitat, Primary Constituent Elements, and Methodology

(12) *Comment:* Two commenters questioned the scientific evidence used to determine critical habitat.

Our Response: In designating critical habitat for the arroyo toad, we have used the best available scientific and commercial information, including results of numerous surveys, peer-reviewed literature, unpublished reports by scientists and biological consultants, potential habitat maps developed by the Forest Service (Forest Service 2000),

and expert opinion from biologists with extensive experience studying the arroyo toad. Further, information provided in comments on the proposed designation and the draft economic analysis were evaluated and taken into consideration in the development of this final designation, as appropriate.

Comments and materials received, as well as supporting documentation used in the preparation of this final rule, are available for public inspection, by appointment, during normal business hours at the Ventura Fish and Wildlife Office (see **ADDRESSES** section above).

(13) *Comment:* One commenter stated that at least 24 additional habitat areas should be designated as critical habitat in the final rule, including all populations and metapopulations identified in Table 1 of the arroyo toad recovery plan.

Our Response: The Act states, at section 3(5)(C), that except in particular circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species. It is not the intent of the Act to designate critical habitat for every population and every documented historic location of a species. We have designated habitat that contain features essential for the conservation of the species.

(14) *Comment:* One commenter stated that the proposed designation of critical habitat was overly broad and that we included areas that are not essential to the conservation of the species. Another commenter expressed a similar concern and stated that we proposed more areas than what is suitable for the toad in an attempt to make up for the limited precipitation in southern California.

Our Response: As a result of revisions to the methodology used to delineate critical habitat, areas that do not contain the features essential to the conservation of the species have been removed from the final designation (see Summary of Changes and Criteria Used to Identify Critical Habitat sections below). Only areas that contain features essential to the conservation of the species were designated critical habitat; precipitation levels did not directly effect this designation.

(15) *Comment:* One commenter stated that the Service failed to identify the physical or biological features essential to the conservation and recovery of the species or the methods that would be used in the identification of such features.

Our Response: In our "Primary Constituent Elements" section we have outlined as specifically as possible all of the physical and biological features

essential to the conservation of the species. In our "Methods" and "Criteria Used to Identify Critical Habitat" sections we outlined the methods we used to identify and delineate critical habitat.

(16) *Comment:* Several commenters stated that we included areas where the arroyo toad and their primary constituent elements were absent, such as roads, developed areas, and particular natural features (*i.e.*, steep slopes), or where their status is uncertain. Another commenter acknowledged our attempts to remove these types of areas, but requested that we examine the units even more closely, particularly in San Diego County, and more finely remove areas that do not contain primary constituent elements.

Our Response: As described below, we have revised the methodology used to determine critical habitat, and therefore have removed areas that did not contain features essential to the conservation of the species (see Summary of Changes and Criteria Used to Identify Critical Habitat sections below). 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 arroyo toad conservation. However, as it is not possible to remove each and every one of these features, even at the refined mapping scale used, the maps of the proposed designation may still include areas that do not contain primary constituent elements (see Criteria Used to Identify Critical Habitat below). These areas are not being designated as critical habitat.

As to the comment about units in San Diego County, all units in San Diego County have been excluded under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for detailed discussion of exclusions).

(17) *Comment:* One commenter stated that the revised criteria used to identify upland use by arroyo toads, which resulted in the reduction of the maximum distance from the stream to which critical habitat extended from 4,921 feet to 1,640 feet, is not supported in the proposed rule. Other commenters expressed opposition to our reduction in the amount of upland habitat included in our revised model and expressed concern that some of the upland habitat used by arroyo toads has been removed from consideration as critical habitat. In contrast, one commenter stated that the proposed designation of upland habitat was overly broad in mountainous areas away from the coast and we should have used

a shorter upland movement distance than 4,921 ft (1,500 m).

Our Response: We based our decision to revise the model of what constitutes essential upland habitat on the best available science and data on arroyo toad upland habitat use. The study by Holland and Sisk (2000) demonstrated that 88% of the adult and subadult arroyo toad population was found within the riparian wash area. Of the remaining 12% of the arroyo toads in the upland areas, 68% of the arroyo toads were found within 1,640 ft (500 m) of the riparian wash area. Although some upland habitats shown to be used by arroyo toads in coastal areas are no longer within the critical habitat boundary, we believe the amount of upland habitat included in this final rule is enough to allow for the long-term persistence of the arroyo toad population in a given area and captures all areas essential for the conservation of the species.

(18) *Comment:* One commenter stated that in light of a recent court decision regarding the Alameda whipsnake final critical habitat, *Home Builders Association of Northern California v. U.S. Fish & Wildlife Service*, 268 F. Supp. 2d, we did not sufficiently explain why the designation of unoccupied linkage areas are essential for the conservation of the arroyo toad pursuant to 16 U.S.C. 1532(5)(A)(ii). The commenter stated that this approach threatens to eliminate the distinction between “areas within the geographic area occupied by the species at the time it is listed,” and “specific areas outside the geographic area occupied by the species at the time it is listed that are essential to the conservation of the species.”

Our Response: We have not designated any critical habitat units outside the geographical area currently or historically occupied by the species. Arroyo toad breeding habitat is patchily distributed along stream courses. Linkage areas between breeding habitat are essential for the conservation of the species because they provide habitat for toads moving to and from breeding areas and habitat for foraging, breeding, and burrowing. Since these linkage areas are occupied by the species during some period of their life cycle, they were designated as critical habitat (see Summary of Changes from the Proposed Rule section for the definition of “occupied”).

(19) *Comment:* Several commenters generally stated that we should not rely on survey efforts when they are funded by landowners with an interest in obtaining negative results.

Our Response: As per section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, we used the best available scientific and commercial information available in the designation of critical habitat for the arroyo toad, which includes information from all valid survey efforts by all qualified biologists. If we receive evidence that survey results have been falsified or survey methods were unacceptable, we would not use those results. We have no evidence that any of the data we have referenced or used in formulating this rule has been falsified or based on unacceptable survey methods.

(20) *Comment:* One commenter stated that our 30-day comment period following the proposed rule was inadequate to allow the public to understand and comment meaningfully on the proposed rule and that this should have been extended to no less than 60 days.

Our Response: The proposed critical habitat rule for the arroyo toad was available to the public for review and comment for 60 days. The first 30-day comment period opened on April 28, 2004 (60 FR 23254). On February 14, 2005, we reopened the public comment period for the proposed rule for an additional 30-day period upon publication of the Notice of Availability of the Draft Economic Analysis (70 FR 7459). We believe these two public comment periods provided adequate opportunity for public comment.

(21) *Comment:* One commenter stated that the Service did not adequately notify landowners where proposed critical habitat was located. Another commenter expressed concern that the revisions we made to critical habitat proposed for the arroyo toad (70 FR 7459) were not accompanied by revised maps, nor were revised maps available on any website. Without maps showing where revisions were made, the description of the changes made to the proposed rule was difficult to understand. This made it difficult for the public to adequately comment on the proposed revisions.

Our Response: We issued a widely disseminated news release regarding our proposal and published legal notices in all major newspapers within the range of the species in California, including the Monterey Herald on May 1, Ventura County Star on May 4, the Orange County Register on May 7, the San Diego Union Tribune on May 8, and the Santa Barbara News Press on May 12, 2004. General maps delineating the boundaries of critical habitat were included in the April 28, 2004, proposed rule. Due to operational time constraints and a looming court-ordered

deadline, we were unable to produce maps of the subsequent revisions and make them available to the general public. However, points of contact were given in the proposed rule for landowners needing assistance in determining whether their property was within designated critical habitat were able to contact the Ventura or Carlsbad Fish and Wildlife Office, and specific maps were provided upon request. We attempted to carefully describe in the **Federal Register** (70 FR 7459) all of the ways in which revisions were made to the proposed rule.

Comments Related to Site-Specific Areas

(22) *Comment:* One commenter stated that local land use controls provide sufficient protection for the arroyo toad in Santa Barbara County.

Our Response: Although there are other State, local, and Federal laws that offer some protection to endangered species and their habitats (e.g., Clean Water Act and California Environmental Quality Act), none provide the same level of protection and review for threatened and endangered species as does the Endangered Species Act. These laws are not redundant and work in concert to provide protection for environmental resources.

(23) *Comment:* One commenter stated that Rancho Sisquoc (unit 2) has not been surveyed for arroyo toads and the Service does not know that arroyo toads occupy this portion of the Sisquoc River.

Our Response: We agree that much of the Sisquoc River as it flows through the privately-owned Sisquoc Ranch has not been surveyed for arroyo toads. However, there are two reports of arroyo toads occupying the Sisquoc River within the Sisquoc Ranch; arroyo toads were observed there by M. Hanson in 1992 (CNDDDB 1992) and also by LSA associates in 1993 (LSA Associates, Inc. 2000). Arroyo toads have also been reported along the Sisquoc River both upstream and downstream from the Sisquoc Ranch (CNDDDB 1992, 1994).

(24) *Comment:* One commenter stated that the Service failed to explain its rationale regarding the need for special management considerations and protection on lands proposed for designation as critical habitat in unit 2. Specifically, it did not consider those already in place in the Mining and Reclamation Plan for mining activities on the Sisquoc River.

Our Response: The Mining and Reclamation Plan for mining activities on the Sisquoc River outlines measures to reduce harm to the arroyo toad and its habitat, but it was written prior to the

designation of critical habitat for this species. Thus, neither designated, nor proposed, critical habitat for the arroyo toad is addressed in the Mining and Reclamation Plan. Additionally, the Mining and Reclamation Plan pertains only to those areas contemplated for sand and gravel mining, but does not cover a large portion of the Sisquoc River upstream from the mining area, which we have designated as critical habitat.

(25) *Comment:* Several commenters stated that the Santa Clara River is occupied by arroyo toads and should be protected as critical habitat.

Our Response: Critical habitat was proposed along portions of the Santa Clara River known to be occupied by the arroyo toad (subunits 6b and 6c). However, unit 6 is excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for detailed discussion of exclusions).

(26) *Comment:* One commenter stated that the Army Corps of Engineers 404 permit granted to Valencia Company and associated Natural River Management Plan does not adequately protect arroyo toad habitat along the Santa Clara River in and around Valencia (subunit 6b), and therefore should not be excluded from the critical habitat designation.

Our Response: Although we believe the Natural River Management Plan does protect arroyo toad habitat (see 70 FR 7459 for a detailed discussion), unit 6 is excluded from critical habitat under section 4(b)(2) of the Act for economic reasons.

(27) *Comment:* One commenter stated that land within subunit 6b is already, or will be, protected through conservation easements and other management measures. This commenter also stated that this area is not truly essential to the conservation of the species due to limited arroyo toad observations, and would generate considerable costs for private landowners, and therefore should be excluded. During the second comment period this commenter offered support for our proposed exclusion of subunit 6b.

Our Response: Although this area currently contains a small arroyo toad population, arroyo toad numbers likely were much larger in the past, and the number of arroyo toads has the potential to greatly increase once again throughout suitable habitat in this subunit. Therefore, we believe it is essential habitat for the arroyo toad. Although we agree that the protection

provided by the conservation easements conveyed or proposed on lands within this subunit will benefit the arroyo toad, unit 6 is excluded under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

(28) *Comment:* One commenter stated that we should have included the portion of the Santa Clara River downstream of proposed subunit 6b between Castaic Creek and Piru Creek.

Our Response: Although much of the habitat may be suitable for arroyo toads, they have never been reported from this portion of the Santa Clara River despite surveys (San Marino Environmental Associates 1995; RECON 1999; Impact Sciences 2002; Compliance Biology 2004). Habitat within the river corridor along this reach appears to be suitable for arroyo toads, but much of the upland habitats adjacent to the river corridor are unsuitable for arroyo toads because they consist of intensive agriculture. Also, most of the river corridor in the Los Angeles County portion of this reach will be or is proposed to be protected by a conservation easement associated with the Newhall Ranch Specific Plan.

(29) *Comment:* One commenter supported our inclusion of Castaic Creek and the Santa Clara River in the vicinity of the Castaic Creek confluence with the Santa Clara River. However, they felt that we should have also included the portion of Castaic Creek that is just downstream of the Castaic Dam and lagoon.

Our Response: We have determined that this area should not be designated as critical habitat for the following reasons: (1) Surveys have indicated that arroyo toads do not occupy this portion of Castaic Creek; (2) suitable habitat extends along Castaic Creek for only a short distance (perhaps less than a mile) in this area; (3) it is isolated from upper Castaic Creek by Castaic Dam, which serves as a geographic barrier; and (4) it is isolated from suitable habitat along lower Castaic Creek by several miles of rather dry, marginal habitat lacking sufficient cover for upland migrating arroyo toads.

(30) *Comment:* Two commenters asserted that there is insufficient evidence to support our conclusion that the upper portion of the Santa Clara River (Soledad Canyon) supports a breeding population of arroyo toads. Another commenter stated just the opposite, that there is a breeding population of arroyo toads in this area.

Our Response: Although it does not appear to be a large population, the best

available science and survey results indicate arroyo toad presence and evidence of successful reproduction in the upper Santa Clara River (subunit 6b in this rule). As stated in a letter to the City of Santa Clarita by Frank Hovore & Associates (F. Hovore, in litt. 2001, p. 1), "There can be no doubt whatsoever that the arroyo toad maintains a breeding metapopulation unit on the TMC site, and that the upland areas around the river are essential to its out-of-channel biology, and ultimately, survival." At least 70 arroyo toad tadpoles have been documented from the upper Santa Clara River in three different locations (N. Sandburg, in litt. 2001). We are also aware of at least three metamorphosed arroyo toads observed in two separate locations. These arroyo toad tadpoles and juveniles were observed and identified by at least five qualified biologists on a number of different occasions, although all sightings were made in the spring of 2001. The presence of arroyo toad tadpoles is, by itself, evidence of breeding. Arroyo toads in this area may have been missed prior to 2001 due to the lack of night surveys, surveys being conducted during a drought year when reproduction may not have taken place (1990), and because surveys were conducted late in the season (July of 1994) when this portion of the Santa Clara River may have already dried.

(31) *Comment:* A commenter further stated that the tadpoles and recently metamorphosed arroyo toads ("metamorphs") found within the upper Santa Clara River [subunit 6c] are equivalent to "lone wolves" dispersing through an area, and do not constitute a population. The commenter cited the 2000 10th Circuit Court case, *Wyoming Farm Bureau Federation v. Babbitt* (199 F.3d 1224, 1234), which ruled that lone wolves do not constitute a population.

Our Response: Movements of arroyo toad tadpoles, and even adults, are limited as they cannot disperse across the landscape like wolves. The nearest observations of the upper Santa Clara River arroyo toads would be those found at least 12 miles (mi) (19.3 kilometers (km)) downstream. According to the best available information, this is beyond the upstream dispersal capability of an adult arroyo toad. Given that most of the intervening habitat along the Santa Clara River between these two populations is typically dry, like adults, small, recently transformed individuals are certainly not capable of dispersing 12 miles upstream. Tadpoles do not disperse far from the pool where they were deposited as eggs, except for the possibility of being washed downstream during a flood event. We

are unaware of any arroyo toads existing in the Santa Clara River watershed upstream of this subunit (6c). Even if there was a population further upstream, it would be unlikely for the 70 arroyo toad tadpoles to have been washed downstream as a group to this point in Soledad Canyon and be found in good condition.

(32) *Comment:* Two commenters generally asserted that the upper Santa Clara River does not contain the primary constituent elements for arroyo toad and constitutes poor habitat for this species. In direct contrast to these comments, two other commenters stated that this area does contain suitable habitat and is important for the preservation of the arroyo toad.

Our Response: Direct observations by Service biologists and that of other biologists conducting arroyo toad surveys show that the upper Santa Clara River within proposed subunit 6c does contain all of the primary constituent elements of arroyo toad critical habitat. Sandburg (in litt. 2001, p.3) states, “* * * the stream channel [of the Santa Clara River] widens with flat terraces, cottonwood overstory, extensive alluvial deposits and stream velocities suitable for arroyo toad clutches * * * A side tributary, referred to as Bear Creek, delineates another large area of optimal arroyo toad habitat with slower water velocities and wide alluvial terraces devoid of dense vegetation.” Thus, observations by the Service and independent biologists confirm the presence of arroyo toad habitat and the species’ primary constituent elements.

(33) *Comment:* One commenter asserted that the upper Santa Clara River does not meet any of our criteria to be designated as critical habitat.

Our Response: In the proposed rule we stated that the criteria we used to identify critical habitat are identical to the criteria outlined in the final designation previously published in the **Federal Register** on February 7, 2001 (66 FR 9414). In that rule, we outlined five criteria, which if any is found on a site, would warrant it to be designated as critical habitat. The second of those five criteria states that, if a site “supports at least a small toad population and possesses favorable habitat conditions for population expansion and persistence,” then this area would be considered critical habitat. Subunit 6c along the upper Santa Clara River meets this criterion. However, unit 6 is excluded under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

(34) *Comment:* Two commenters referenced a letter from the Service stating that a project area on Rasmussen Company land in Soledad Canyon along the upper Santa Clara River has little habitat value for the arroyo toad. These commenters are concerned that this area, which lacks suitable habitat for the arroyo toad, has been proposed as critical habitat.

Our Response: Unit 6, where the land referenced by the commenters is located, is excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

(35) *Comment:* One commenter stated that our revisions to proposed critical habitat in subunit 6c (70 FR 7459) are unwarranted. The commenter argued that we should have included the entire original Santa Clara River channel (below Agua Dulce Canyon) as critical habitat, as originally proposed, rather than removing the portion north of the railroad tracks, which traverse portions of the original river channel in some locations. The commenter stated that water extraction wells installed for mining purposes might now be installed in these areas resulting in adverse impacts to surface flows in the Santa Clara River.

Our Response: We removed the areas in question north of the railroad tracks from critical habitat designation because some of these areas have been degraded by past mining activities. Also, the railroad tracks, which are often raised on rather steep banks, pose a likely barrier to arroyo toad movements in these areas. Thus, although arroyo toads may be able to cross the railroad tracks in some locations, both access and quality of these areas is limited. Therefore, we determined their inclusion into critical habitat was not warranted at this time. Additionally, any effects to the surface hydrology of the Santa Clara River from water withdrawal projects involving a federal nexus that adversely affect the arroyo toad or its critical habitat, whether they originate outside of critical habitat or not, would be subject to the section 7 consultation process under the Act.

(36) *Comment:* Two commenters opposed the designation of critical habitat on Rancho Las Flores Planned Community (Rancho Las Flores) land in Summit Valley, San Bernardino County, which surrounds the West Fork of the Mojave River. They pointed out that many acres in this area will be designated as open space or protected by conservation easement to protect the

toad. They also stated that two biological opinions have been issued for projects in this area and a Habitat Conservation Plan (HCP) is being developed to cover lands not addressed in the biological opinions. Additionally, one of the commenters expressed concern that new housing, jobs, and other social benefits provided by the planned community may be jeopardized or constrained by a critical habitat designation.

Our Response: We agree that greater conservation benefits to arroyo toad habitat on private property can result from carefully designed plans formulated cooperatively between the Service and private conservation partners. However, unit 22, which is the only proposed unit that includes Rancho Las Flores lands, is excluded under section 4(b)(2) of the Act for economic reasons under (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section).

(37) *Comment:* One commenter stated that we should have included the following additional areas in the critical habitat designation, which are listed in Table 1 of the recovery plan for the arroyo toad (Service 1999) and are found in the Northern Recovery Unit. These areas are the following: Upper Salinas River; Agua Caliente Creek in the upper Santa Ynez River Basin; and Agua Blanca, Bouquet, and Castaic Creeks in the Santa Clara River Basin.

Our Response: We are unaware of any recent observations of arroyo toads in the upper Salinas River watershed or anywhere within San Luis Obispo County. Many of the other areas not considered for designation as critical habitat, which are identified in Table 1 of the recovery plan, are tributaries to larger streams where arroyo toads occur. We do not currently have information suggesting that these tributaries are occupied by arroyo toad or that these tributaries contribute a significant amount of habitat that would be used by the toads. Although arroyo toads are not known to occupy Agua Caliente Creek and we have not included Agua Caliente Creek as part of the critical habitat designation for the toad, we have included the confluence of Agua Caliente Creek and the Santa Ynez River because arroyo toads occupy the Santa Ynez River. Agua Blanca Creek is a tributary to Piru Creek; the portion of Agua Blanca Creek occupied by arroyo toads is included in critical habitat. When the recovery plan was published, it was thought that habitat suitable for the arroyo toad may be found along Bouquet Creek. However, more recent surveys have found Bouquet Creek to be

largely unsuitable for arroyo toads, and they have never been observed in this tributary.

(38) *Comment:* One commenter requested that their First and Second San Diego Aqueducts and proposed Moreno Lakes pipeline right-of-ways (ROWs) in the San Luis Rey River (Unit 14) and San Diego River (Unit 17c), respectively, be excluded from critical habitat so that their mission of providing water to their member agencies is not hindered. They state that their permits for facility operations would need to be modified to address a critical habitat designation.

Our Response: After closer review of available information and comments, we have determined that areas on the San Diego River downstream from El Capitan Reservoir (Subunit 17c) are not essential to the conservation of the toad and are therefore removed from critical habitat. Accordingly, the Moreno Lakes ROW in Subunit 17c is no longer in critical habitat. Unit 14, the location of the First and Second aqueduct of concern to the commenter, is excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

(39) *Comment:* The same commenter asked whether their existing Section 7 permit that covers the coastal California gnatcatcher could be amended to cover the arroyo toad critical habitat for Units 14 and 17c.

Our Response: Assuming the Federal agency that was subject to consultation under section 7 of the Act for another listed species still retains discretionary jurisdiction over the action, the Federal agency must reinitiate section 7 consultation if its action "may affect" designated critical habitat for the arroyo toad. See *Section 7 Consultation* below.

(40) *Comment:* One commenter stated several reasons why they believe that arroyo toad critical habitat rule improperly includes portions of Pardee's Meadowbrook project site north of Highway 76 along the San Luis Rey River in Unit 14. They state that this area does not contain suitable habitat, is not, and will never be occupied by toads because of the barrier created by Highway 76, that we did not provide special management considerations for Unit 14, and Unit 14 is outside the geographic area occupied by the species.

Our Response: As a result of revisions to our methodology to delineate critical habitat (see the Criteria Used to Identify Critical Habitat section below), more than half of the critical habitat located

north of Highway 76 was removed. The remaining areas were reevaluated using the best available information, including an upland habitat pitfall study in 2003. The results of this study indicate that the primary constituent elements, including soil type, are marginal on the property north of the highway. Based on these results and the spatial relation of this area to nearby areas of critical habitat, we are removing Pardee's Meadowbrook project site north of Highway 76 from critical habitat. The remainder of unit 14 is excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

(41) *Comment:* A couple of commenters stated that the portion of Whitewater River downstream of the Colorado River Aqueduct lacks the primary constituent elements, and therefore should be removed as essential habitat for the arroyo toad.

Our Response: We have reevaluated all the available information and have concurred with the commenters that this area does not contain essential habitat.

(42) *Comment:* One commenter stated that lands owned by the Sweetwater Authority, Helix Water District, and Padre Dam Municipal District in San Diego County (portions of Units 17 and 18) should be excluded from designated critical habitat for the arroyo toad because the benefits of exclusion based on economic considerations far outweigh the benefits of inclusion.

Our Response: We have excluded these essential areas from critical habitat based on economic considerations (see the Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion). Lands downstream of El Capitan Reservoir in subunit 17b and 17c were removed from critical habitat because they were not known to be occupied, and therefore were not considered to be essential for the conservation of the species (see the Summary of Changes and Criteria Used to Identify Critical Habitat sections for detailed discussions).

(43) *Comment:* One commenter stated that the Service failed to identify special management considerations related to lands owned by the Sweetwater Authority, Helix Water District, and Padre Dam Municipal District in San Diego County in Units 17 and 18.

Our Response: We disagree with commenters and did identify special management considerations for these Units in the proposed arroyo toad

critical habitat rule published on April 28, 2004 (69 FR 23254). We cited threats from development, exotic predators, timing and amount of water transfer as some of the threats that require special management considerations.

(44) *Comment:* One commenter stated that we should reconsider revising essential upland habitat in San Juan Creek for the arroyo toad to only capture the floodplain because adjacent alluvial flats and uplands are of questionable suitability for toad use, some upland areas included industrial land uses and are beyond busy paved roads that are not accessible to toads.

Our Response: Even though all essential areas in San Juan Creek have been excluded from designated critical habitat due to economic reasons (see the Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion), we still believe that upland areas containing primary constituent elements adjacent to riparian habitat are essential for the conservation of the toad. It has been well documented that the use upland areas by arroyo toads for burrowing, foraging, and aestivating is a normal part of their life history (Sweet 1993; Griffin and Case 2001; Holland and Sisk 2001). Therefore, protecting these upland areas is necessary for adequate conservation of the arroyo toad. In some cases, we agreed with the commenter and removed upland areas where there was heavy industrial land uses. We also examined whether all areas beyond paved roads were essential and removed areas where toads did not have stream undercrossings.

(45) *Comment:* A couple of commenters stated that we should reconsider revising the essential reach of San Juan Creek for the arroyo toad because we did not provide evidence that certain portions of the Creek are occupied, it lacks primary constituent elements, such as breeding pools, and contains exotic predators. One of these commenters also stated that some portions of San Mateo Watershed should be removed because they lack primary constituent elements, such as suitable sandy friable soils and contain exotic predators.

Our Response: Even though all essential areas in San Juan Creek have been excluded from designated critical habitat due to economic reasons (see the Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion), we still believe that all essential reaches of San Juan Creek are occupied because of several reports of toad occurrences in these

areas in the past 15 years as well the possibility for tadpoles to be washed downstream into less densely occupied areas (P. Bloom in litt. 1998). We agree that the density of occupancy along the Creek varies, but low density areas are still essential for arroyo toad conservation because they contain the primary constituent elements, are occupied, and contain special management considerations, such as exotic predator and plant control. If these special management considerations were applied, it would be likely that population densities would increase. All essential reaches of San Juan Creek and San Mateo Watershed in Units 10 and 11 have the primary constituent elements, which may include stream channels and upland areas adjacent to riparian areas that allow for migration between foraging, burrowing, or aestivating sites.

Comments Related to Military Lands

(46) *Comment:* The Army submitted several comments relating to the exclusion of Fort Hunter Liggett from critical habitat. They state that: (1) We have essentially approved an Integrated Natural Resource Management Plan (INRMP) for the installation; (2) the arroyo toad and its habitat are already being protected at Fort Hunter Liggett by the Army's Endangered Species Management Plan (ESMP) for the arroyo toad; (3) the INRMP and ESMP together provide a greater level of protection for the arroyo toad and its habitat than a designation of critical habitat would provide; and (4) that the designation of critical habitat at Fort Hunter Liggett would interfere with its mission of training soldiers. In contrast, a commenter unaffiliated with the military stated that the benefit of including Fort Hunter Liggett lands in the critical habitat designation outweighed the benefits of exclusion.

Our Response: All lands essential to the conservation of the arroyo toad at Fort Hunter Liggett have been excluded under section 3(5)(A) and/or 4(b)(2) of the Act from the final designation of critical habitat because of alternative protective measures provided by the Army (see the Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for detailed discussion of our exclusions below).

(47) *Comment:* One commenter stated that they oppose the designation of critical habitat for the arroyo toad on Naval Weapons Station, Seal Beach, Detachment Fallbrook (Detachment Fallbrook) because of the existence of an Integrated Natural Resources Management Plan (INRMP), potential

complications in conservation efforts with other listed species, and adverse impacts on national security.

Our Response: We have reviewed Detachment Fallbrook's Fire Management Plan and INRMP. The Secretary determined, in writing, that Detachment Fallbrook's INRMP provides a benefit to the arroyo toad and therefore, consistent with Public Law 108-136 (Nov. 2003): Nat. Defense Authorization Act for FY04 and Section 4(a)(3) of the Act, the Department of Defense's Detachment Fallbrook lands are exempt from critical habitat based on the adequacy of their legally operative INRMP (see the Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion of this exemption below).

(48) *Comment:* A couple of commenters stated that the Service should exclude all essential lands on Camp Pendleton, including State lease lands and cantonment areas because of their Integrated Natural Resource Management Plan (INRMP).

Our Response: We agree with the commenter and have excluded all essential areas, including State lease lands and cantonment areas, from designated critical habitat on Camp Pendleton based on their INRMP (see the Exemptions Under Section 4(a)(3) section for a detailed discussion).

(49) *Comment:* One commenter strongly supported the designation of critical habitat for the arroyo toad within those portions of Camp Pendleton that are leased to the State (San Onofre State Beach) because this area supports large numbers of arroyo toads and primary constituent elements.

Our Response: We agree with the commenter that this area is very important for the conservation of the arroyo toad. However, we have excluded these lands that are leased to the State because they are within the area covered by Camp Pendleton's INRMP (see the Exemptions Under Section 4(a)(3) section for a detailed discussion).

Comments Related to Tribal Lands

(50) *Comment:* A few commenters stated that the Service needs to work more closely to meaningfully contact the Bureau of Indian Affairs and/or Tribes to fully meet the tenet of Executive Order 13175 and Secretarial Order 3206.

Our Response: We agree that we need to work more closely with Tribes potentially impacted by the designation of critical habitat. We increased our efforts to work with the Tribes following the proposed rule by holding several

meetings with various Tribes. We intend to keep improving our relationships with the Tribes and the Bureau of Indian Affairs following the tenets of Secretarial Order 3206 and Executive Order 13175.

(51) *Comment:* One commenter stated that no portion of the Soboba Indian Reservation should be designated as critical habitat for the arroyo toad.

Our Response: We did not propose or designate any portions of the Soboba Indian Reservation as critical habitat for the arroyo toad.

(52) *Comment:* One commenter stated that the Service failed to provide a meaningful analysis required by Secretarial Order #3206 prior to designating Indian Lands because of the first paragraph in the benefits of inclusion analysis in the proposed critical habitat rule that was implied as meaning that there was a threat of loss of arroyo toad habitat on Tribal lands in the absence of critical habitat.

Our Response: All essential areas proposed on Tribal lands are excluded from critical habitat for economic considerations (see the Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion). However, we did not intend for our statement to imply that there was a threat of loss of arroyo toad habitat on Tribal lands in the absence of critical habitat. We were simply stating the significance of these areas as essential for the conservation of the species.

(53) *Comment:* One commenter stated that there are no special management considerations and protections on the Rincon Indian Reservation because of their Tribal Resource Conservation and Management Plan.

Our Response: All lands on Rincon Indian Reservation are being excluded from designated critical habitat for the arroyo toad because of economic considerations. We agree with the commenter that their Tribal Resource Conservation and Management Plan will address special management considerations for the arroyo toad.

Comments Related to HCPs, NCCP Program, Section 7, and Section 404

(54) *Comment:* Several commenters were supportive of the policy that lands covered by approved and nearly completed HCPs that provide take authorization for the arroyo toad should be excluded from critical habitat. Several of these commenters also requested that HCP exclusions should also apply to draft HCPs, lands enrolled in the NCCP program, and lands covered by the Joint Water Agency (JWA) draft plan.

Our Response: While we trust that jurisdictions will attempt to fulfill their commitment to complete conservation plans, this voluntary enrollment does not assure that such plans will be finalized. Protections for arroyo toad habitat provided through participating jurisdiction's enrollment in the NCCP processes are temporary and are not assured; such protections may be lost if the jurisdiction elects to withdraw from the NCCP program. Guidelines for the NCCP program direct habitat loss to areas with low long-term conservation potential that will not preclude the development of adequate NCCP plans and ensure that connectivity between areas of high habitat value will be maintained. We will consider excluding lands within pending HCP areas where we have received a permit application from the participants and an environmental analysis has been completed and released for public review and comment under the authority of NEPA. By completing these criteria, jurisdictions demonstrate their intent to finalize their HCP/NCCPs.

(55) *Comment:* Several commenters stated that the designation of critical habitat removes incentives to participate in NCCP and HCP processes, in part because of added regulatory uncertainty, increased costs to plan development and implementation, weakened stakeholder support, delayed approval and development of the plan, and greater vulnerability to legal challenge.

Our Response: HCPs are one of the most important tools for reconciling land use with the conservation of listed species on non-Federal lands. We look forward to working with HCP applicants to ensure that their plans meet the issuance criteria and that the designation of critical habitat on lands where an HCP is in development does not delay the approval and implementation of their HCP.

(56) *Comment:* Some commenters stated that our policy to exclude the pending Western Riverside Multiple Species Habitat Conservation Plan (MSHCP), but not other pending HCPs or NCCPs, may amount to arbitrary and capricious administrative conduct.

Our Response: As stated above, we will consider excluding lands within pending HCPs where we have received a permit application from the participants and an environmental analysis has been completed and released for public review and comment under the authority of NEPA. The Western Riverside MSHCP, for which a section 10(a)(1)(B) permit was issued on June 22, 2004, was proposed for exclusion in the proposed rule because it met these criteria.

(57) *Comment:* One commenter asked whether the designation of critical habitat would be considered a changed and unforeseen circumstance with respect to the various subarea plans presently approved or pending.

Our Response: All approved or pending HCPs that were determined to provide a benefit to the conservation of the arroyo toad were excluded from the critical habitat designation (see Application of Sections 3(5)(A), 4(a)(3), and Exclusions Under Section 4(b)(2) of the Act). Therefore, there would be no changed or unforeseen circumstance resulting from this designation.

(58) *Comment:* One commenter stated multiple reasons for why essential arroyo toad habitat within several HCPs (including a draft HCP) and military installations should not be excluded from critical habitat. They stated that the benefit of designating these areas as critical habitat outweighs excluding them because exclusions are based partly on speculative and unproven future activities and critical habitat provides a greater benefit than measures contained in draft and approved conservation plans. They also stated that the Service unlawfully predetermined the benefits of excluding essential habitat because our determination was made prior to soliciting public review.

Our Response: We agree that critical habitat designation is only one part—often the least important element—in the conservation of a species. In many cases, partnerships with individual landowners and conservation agreements with a variety of stakeholders can provide a much greater conservation benefit for arroyo toad and other species, as they offer positive management actions that cannot be achieved through a critical habitat designation. We have determined that the exclusion of lands covered by HCPs or INRMPs from critical habitat designation will not result in the extinction of the arroyo toad and that the HCPs and INRMPs we evaluated for exclusion will provide a greater benefit to the toad than critical habitat (see the Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

However, we did not reach this conclusion prior to receipt of public comment as contended in this comment; areas excluded from the draft proposal because of their inclusion in HCPs or coverage by INRMPs were identified as such, proposed justifications offered for public review, and notice was provided that these areas might be included in the

final designation based on public comments.

(59) *Comment:* One commenter asked whether areas covered under existing Section 7 permits can be excluded from critical habitat in manner similar to areas under existing Section 10 permits.

Our Response: Consultation under Section 7 of the Act does not result in the issuance of a Section 7 “permit” per se. Federal actions that we conclude are not likely to jeopardize the continued existence of a listed species are exempted from the prohibition against take of listed animal species under Section 9 of the Act so long as the Federal agency and any permittee comply with the terms and conditions of the incidental take statement accompanying the Service's biological opinion. Typically HCPs provide greater conservation benefits to a covered species by assuring the long-term protection and management of a covered species and its habitat, and funding for such management through the standards found in the 5-Point Policy for HCPs (64 FR 35242), the HCP No Surprises regulation (63 FR 8859), and relevant regulations governing the issuance and implementation of HCPs, such as those requiring the permittee to minimize and mitigate the taking to the maximum extent practicable. However, such assurances are typically not provided in connection with Federal projects subject to section 7 consultations which, in contrast to activities on non-Federal lands covered by HCPs, often do not commit to long-term special management or protections. Thus, a consultation unrelated to an HCP typically does not accord the lands it covers the extensive benefits an HCP provides. However, some landowners have agreed to provide extensive, permanent protection of arroyo toad habitat in conjunction with a section 7 consultation. In cases where we have determined that a conservation strategy agreed to by a private landowner provides a substantial, long-term benefit to the species, we have excluded these private lands from the critical habitat designation (see the Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section below).

(60) *Comment:* One commenter stated that all Coachella Valley Water District (CVWD) lands be excluded from critical habitat designation within the draft Coachella Valley MSHCP boundaries.

Our Response: The draft Coachella Valley MSHCP has been in development for several years. In contrast to other HCPs under development, which contain essential arroyo toad habitat, the Coachella Valley MSHCP is near its

completion. As a result, the Service is very close to taking final action on the Coachella Valley Association of Government's incidental take permit application. On November 5th, 2004, the Service published a Notice of Availability of a Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the draft MSHCP. Although not yet completed, the draft Coachella Valley MSHCP plans on conserving 96% of the modeled arroyo toad habitat in the Whitewater River, acquiring private lands from willing sellers, minimize activities on public lands that threaten toads, and conserve other areas of potential habitat outside of Whitewater River. This plan will provide some level of conservation benefit to the arroyo toad and the habitat that it is known to occupy. CVWD is one of the permittees to the draft Plan. As result, we have excluded all CVWD lands within the draft Coachella Valley MSHCP from designated critical habitat for the arroyo toad. (see the Relationship of Critical Habitat to the Draft Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP)—Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

(61) *Comment:* One commenter asked whether on-going activities, such as routine inspections, road grading, and construction adjacent to designated critical habitat are considered to appreciably decrease habitat values or quality through indirect effects.

Our Response: The effects of any such activities on critical habitat must be considered by the Federal agency planning to conduct such activities. The action agency determines whether their action(s) "may affect" the arroyo toad or its primary constituent elements within the adjacent critical habitat based on their analyses. If so, the action agency would enter into consultation with us under Section 7.

Comments Related to Economic Impacts and Analysis; Other Relevant Impacts

(62) *Comment:* Several commenters expressed concern that commercial activities, such as mining, mineral prospecting, agriculture, and new home construction would be prohibited or severely restricted by a designation of critical habitat. Similarly, other commenters felt that critical habitat is a good way to stop activities that they do not agree with, such as some of the activities mentioned above.

Our Response: Section 7(a)(2) of the Act 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

result in the destruction or adverse modification of 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. Section 7 of the Act does not apply to activities on private or other non-Federal lands that do not involve a Federal nexus, and critical habitat designation would not provide any additional protections under the Act for private or non-Federal activities. Critical habitat does not prohibit private or commercial activities from occurring.

(63) *Comment:* Some commenters stated that critical habitat should not have been proposed before an analysis of economic and other relevant impacts was completed.

Our Response: Pursuant to 50 CFR 424.19, we are not required to conduct an economic analysis at the time critical habitat is initially proposed. We evaluated and used comments received on the April 28, 2004, proposed critical habitat designation to develop the draft economic analysis, as appropriate. On February 14, 2005 (70 FR 7459), we published a notice in the **Federal Register** announcing the availability of the draft economic analysis and reopening the public comment period for 30 days. In making this final critical habitat designation, we used the economic analysis and considered all comments and information submitted during the public comment periods.

(64) *Comment:* Several private property owners commented that their property should be removed from critical habitat because the economic burden to them would be too great.

Our Response: Extensive exclusions have been made for economic reasons (See Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act).

(65) *Comment:* A couple of commenters stated that the Service should exclude all essential lands subject to the Rancho Mission Viejo Ranch Plan because the plan provides a conservation benefit to the arroyo toad.

Our Response: We have excluded these essential areas from critical habitat based on economic considerations (see the Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

(66) *Comment:* One commenter stated that the Service should exclude all essential lands where the proposed Foothill-South Transportation Corridor may be developed in southern Orange

County because of the importance of the Corridor as a regional transportation solution and as a component of the Air Quality Management Plan.

Our Response: We have excluded these essential areas from critical habitat based on economic considerations (see the Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

(67) *Comment:* Several commenters questioned the accuracy of the 1.25-to-1 offsetting compensation ratio used by the draft economic analysis to estimate the amount of land that would potentially be set-aside due to arroyo toad conservation activities.

Our Response: The Service has conducted four formal consultations concerning real estate development effects on the arroyo toad and arroyo toad habitat. The draft economic analysis relies on the average offsetting compensation ratio requested by the Service as part of these four historical consultations. The draft economic analysis notes that actual offsetting compensation ratio used in any particular case will depend on a variety of factors unique to the circumstance at hand. The 1.25-to-1 factor is used in the draft economic analysis as an average for the purpose of forecasting future set-aside acres across all proposed critical habitat. Given that this estimate is based on the full population of formal consultations concerning residential development and the arroyo toad, it represents the best information available during the preparation of the draft economic analysis.

(68) *Comment:* A number of comments state that the draft economic analysis does not rely on appropriate real estate values to estimate land value losses from critical habitat designations.

Our Response: The draft economic analysis estimates the per-acre value of raw, unimproved, and residentially zoned land at 11 percent of the built value. The Service recognizes that the value of raw land as a percent of home price will depend on a variety of factors and can differ significantly by region. In general, raw land values for single-family homes of equal density are higher in areas with high land supply constraints. However, raw land values as a percent of home price also declines as density and development costs increase.

The draft economic analysis calculates residual land value based on an analysis that subtracts hard and soft real estate development costs from home prices in Southern California counties. The average home prices per county is based on data from Rand in

2002, the most recent year available, and inflated to 2004 dollars. Development cost estimates are based on data from Square Foot Costs by RSMean. Rand reports the median price per square foot for single-family homes by county calculated from California Association of Realtors transaction records. Residential values are assumed to appreciate at a rate of 3.4 percent per year in real terms (*i.e.*, adjusted for inflation) over the next 21 years, or through 2025. To the extent that actual residual land values are higher or lower than those projected, the economic impacts will change accordingly.

(69) *Comment:* One commenter stated that the draft economic analysis fails to account for the limited supply of developable land and the corresponding impact on the Southern California housing market.

Our Response: The draft economic analysis evaluates the potential for critical habitat designation to reduce consumer surplus by increasing real estate market prices. The analysis concludes that critical habitat designation will not affect regional real estate markets or prices, and thus consumer surplus, because the total reduction in land supply is expected to represent a very small component of total future market demand in the region. Specifically, the estimated amount of developable acres of habitat set-aside within critical habitat designation is estimated at about 0.7 percent of future market growth through 2025 in the eight counties where arroyo toad critical habitat designation is proposed. Supply adjustments by developers, including increased density and/or project reconfigurations, are likely to further cancel the market impact of the relatively small land supply reduction created by critical habitat designation.

(70) *Comment:* One commenter stated that the draft economic analysis should consider costs at the census tract level.

Our Response: The draft economic analysis relies on the official real estate growth projections provided by SCAG, SANDAG and other regional agencies supported by the governmental jurisdictions located within arroyo toad critical habitat designation. These projections reflect economic and demographic trends at the county and regional level and incorporate local zoning and land use data at the census tract level. The draft economic analysis assumes that county-wide economic and demographic trends are the primary determinant of real estate prices. The draft economic analysis also acknowledges that the regional land

supply is scarce relative to projected growth in several counties within the critical habitat designation. However, since the reduction in land supply resulting from critical habitat designation represents such a small fraction of the total market, the draft economic analysis assumes that it will not alter these regional market dynamics, or increase market prices resulting in consumer surplus losses.

(71) *Comment:* One commenter stated that the draft economic analysis focuses solely on the losses experienced by landowners as a result of critical habitat designation for the arroyo toad. In reality, housing projects generate a considerable amount of consumer surplus, and the temporary loss of this surplus is a major adverse effect of delay.

Our Response: The draft economic analysis does not calculate consumer surplus losses associated with delay for a variety of reasons. First, it is possible that consumers will not experience any delay in the consumption of housing given the negligible effect arroyo toad critical habitat designation is expected to have on overall housing markets (*i.e.*, a variety of housing options exist and consumers may substitute between locations). Second, even if the real estate purchases of consumers are delayed, only a very small proportion of consumer surplus is likely to be lost as the delay period (estimated at six months in the first year after designation) is likely to be a small proportion of the ownership time horizon. Finally, consumer surplus losses due to delay, if any, are difficult to quantify.

(72) *Comment:* Several comments question the draft economic analysis estimates regarding the amount of land within arroyo toad critical habitat designation that would be developed absent arroyo toad conservation activities.

Our Response: The draft economic analysis relies primarily on development projections generated by SCAG and SANDAG to determine the number of acres slated for real estate development. The draft economic analysis only evaluates the impact of the proposed designation on land that is within the critical habitat designation and forecasted (by SCAG or SANDAG) to be developed by the year 2025. These projections suggest that absent critical habitat designation a significant portion of the proposed critical habitat designation will not be developed by 2025.

Though SCAG and SANDAG projections do rely on general plan and zoning information, these projections

may not reflect very recent amendments and changes. In reality, specific projects not anticipated in the SCAG and SANDAG forecasts may be developed, just as other projects included in these forecasts may never materialize. An evaluation of every local land use plan or proposal that could potentially affect arroyo toad critical habitat designation, and its probability of success, is beyond the scope of the draft economic analysis and would not likely lead to more accurate results. SCAG and SANDAG represent the best publicly available data sources reporting future land development within the proposed arroyo toad critical habitat designation.

In addition, it is important to note that the draft economic analysis estimates future offsetting compensation (*i.e.*, land set-aside) for arroyo toad impacts based on development projections and an offsetting compensation ratio. The estimated compensation for impacts to the arroyo toad is not in addition to specific measures already negotiated by regulators and project proponents. That is, in some cases, the draft economic analysis may estimate offsetting compensation when compensation has already been agreed upon by regulators and project proponents. The impacts estimated in the draft economic analysis should not be added to these existing agreements.

(73) *Comment:* One commenter stated that the draft economic analysis does not consider cumulative effects of the proposed rule.

Our Response: The draft economic analysis only evaluated potential effects of the rulemaking, however, we did take into consideration the potential effects of overlapping designations while evaluating potential exclusions from the designation under section 4(b)(2) of the Act.

(74) *Comment:* One commenter stated that the draft economic analysis ignores arroyo toad-related delay impacts associated with transportation projects.

Our Response: Major road projects generally occur over a very long time horizon and require interaction with and support from variety of local, State, and Federal agencies, including environmental review (*i.e.*, CEQA/NEPA). Arroyo toad critical habitat designation is one of many issues that will need to be addressed and resolved during the long time frame associated with the project approval, entitlement, and funding process. Although arroyo toad critical habitat designation may increase the costs associated with the construction or completion of a major road project, it is not expected to extend the normal time frame for a project of

this nature. Consequently, the draft economic analysis does not estimate project delay costs associated with road construction projects.

(75) *Comment:* One commenter stated that the draft economic analysis ignores impacts on the Foothill Eastern Transportation Corridor Agency (TCA).

Our Response: While the draft economic analysis does not refer to TCA projects explicitly, the draft economic analysis does estimate future costs associated with road projects in critical habitat designation Units 10 and 11. These costs reflect estimated economic impacts borne by major road projects occurring within those areas. The costs of arroyo toad conservation activities on local (non-arterial) roads construction projects are not estimated separately in the draft economic analysis. Rather, these costs are assumed to be captured in the reduced land-value estimates.

The estimate of future road projects is based on an extrapolation of SANDAG transportation planning data to the entire study area. This approach was developed based on the best readily available data at the time of the draft economic analysis, given the resources allotted to the study. While it is possible that detailed information on specific planned or proposed road projects may be missed given this methodology, it is also possible that the draft economic analysis includes costs for projects that may in fact never materialize as projected. Overall, the Service believes that the approach utilized in the draft economic analysis represents a reasonable estimate of future road project costs.

The draft economic analysis also assumes that arroyo toad conservation activities are unlikely to have an appreciable effect on regional mobility. Consequently, the draft economic analysis does not attempt to measure the economic cost associated with reduced transportation accessibility.

(76) *Comment:* One commenter stated that the draft economic analysis should consider the implications of the Gifford Pinchot Task Force v. US Fish and Wildlife Service litigation.

Our Response: The draft economic analysis acknowledges that a recent Ninth Circuit judicial opinion, Gifford Pinchot Task Force v. United States Fish and Wildlife Service, has invalidated the Service's regulation defining destruction or adverse modification of critical habitat. The Service is currently reviewing the decision to determine what effect it (and to a limited extent Center for Biological Diversity v. Bureau of Land Management (Case No. C-03-2509-SI, N.D. Cal.)) may have on the

outcome of consultations pursuant to section 7 of the Act.

(77) *Comment:* One commenter stated that the draft economic analysis fails to estimate economic impacts of critical habitat designation on tribal reservation lands.

Our Response: The draft economic analysis estimates economic impacts attributable to arroyo toad critical habitat designation on tribal land. For example, development projections covering tribal lands are relied upon to estimate real estate development costs, infrastructure costs and road construction costs. However, due to data limitations, the impacts to tribal entities are not presented separately.

(78) *Comment:* The Service fails to use the proper baseline for the analysis.

Our Response: The draft economic analysis estimates the total cost of species conservation activities without subtracting the impact of pre-existing baseline regulations (*i.e.*, the cost estimates are fully co-extensive). That is, the draft economic analysis complies with direction from the U.S. 10th Circuit Court of Appeals.

(79) *Comment:* One commenter refuted the draft economic analysis assumption that land contained within the 100-year floodplain is the most likely to be undevelopable even in the absence of arroyo toad conservation activities.

Our Response: FEMA defines floodplains as Special Flood Hazard Areas and places special requirements on development. The lowest floor of all new residential buildings in the floodplain must be at or above the level of the 100-year flood, in order to qualify for FEMA-backed insurance. Non-residential buildings must be at or above the level of the 100-year flood, or be flood-proofed to that level. FEMA defines minimum requirements; local jurisdictions may place additional restrictions on construction. Given these requirements, floodplain development is more expensive than development outside the floodplain making it more likely to be set aside to compensate for impacts to arroyo toad habitat.

As noted in the draft economic analysis, development rarely occurs on 100 percent of the project area assembled by a developer regardless of what degree of arroyo toad protection is in place. A development site will naturally include a relatively large portion of undeveloped acres set aside for a variety of factors, including slope, avoidance of hydrologic features (*e.g.*, flood areas, wetlands, drainage channels), parcel configuration, and creation of "amenity features" such as landscaping, parks, and open space. The

draft economic analysis uses the 100-year flood plain as a proxy for the "low quality" land that would not have been developed in the absence of arroyo toad habitat. In reality, some 100-year flood plain land will be developed while other areas outside the flood plain will not, due to other natural or geological factors. Nonetheless, GIS-based 100-year flood plain data represents the best available data upon which to estimate the proportion of "high-quality" to "low-quality" land within critical habitat.

(80) *Comment:* One commenter stated that the draft economic analysis fails to consider whether floodplain land might carry a development premium due to its proximity to rivers and streams.

Our Response: The draft economic analysis relies on land values calculated at the county level. While there may be a land value premium associated with proximity to a variety of different amenities, estimation of such a premium is beyond the scope of the draft economic analysis.

(81) *Comment:* One commenter points out that floodplain boundaries change over time.

Our Response: While floodplain boundaries are likely to change over time, it is impossible to accurately predict specific changes a-priori. The draft economic analysis relies on the most recent FEMA floodplain boundary data available.

(82) *Comment:* One commenter stated that the draft economic analysis does not consider land use conversion from grazing to vineyard.

Our Response: No publicly available data projects future vineyard development (or other agricultural production) in specific geographic areas. In addition, no historical formal biological opinions address the effect on the arroyo toad of land conversion to agriculture. Thus, the draft economic analysis does not address potential economic effects from agricultural development. If arroyo toad critical habitat designation does affect the feasibility of proposed agriculture conversion activities, the economic impacts would be in addition to those estimated by the draft economic analysis.

(83) *Comment:* One commenter stated that the draft economic analysis should consider the potential economic loss from closure of the Rancho Sisquoc cattle operation.

Our Response: The draft economic analysis estimates that project modifications requested for the arroyo toad conservation on the Sisquoc grazing allotment would have cost about \$422,000. Because the allotment was

abandoned, the draft economic analysis assumes that project proponents found the project modifications cost prohibitive. This suggests that the value of the ranching activity on the Siquoc allotment is less than the \$422,000 impact reported by the draft economic analysis.

(84) *Comment:* Several commenters stated that the draft economic analysis incorrectly reports that the Soledad Canyon sand and gravel mining project has been denied local permits by Los Angeles County, when in fact the project has been approved.

Our Response: Local permits for the mining project was denied in 2002 due to a variety of factors, including environmental review procedures, water quality, and proximity to urban development. At the time research was conducted for the draft economic analysis, the project remained unapproved. However, during the public comment period, project proponents informed the Service that the project was approved in June of 2004. The project is likely to result in additional costs associated with arroyo toad conservation that are not included in the draft economic analysis.

(85) *Comment:* Several commenters stated that the draft economic analysis does not consider the potential for critical habitat designation to reduce the size of the Soledad Canyon sand and gravel mining project.

Our Response: The draft economic analysis relies on historical biological opinions addressing mining projects in order to forecast conservation activities associated with similar projects in the future. In the case of the Soledad Canyon sand and gravel mining project, the Service issued a biological opinion in 2001 that requested various arroyo toad conservation activities. However, the biological opinion did not explicitly request a reduction in the size of the mining project. While the designation of critical habitat may trigger the reinitiation of the project consultation and result in additional measures to protect the arroyo toad, it is difficult to predict whether the additional measures will include a reduction in the size of the project. Furthermore, because no historical biological opinions addressing mining projects have resulted in a significant reduction in project size exclusively for the protection of the arroyo toad, there is no data or basis for forecasting such impacts. To the extent that reinitiation of the Soledad Canyon consultation results in a reduction in the size of the project due to the arroyo toad, there will be economic costs associated with the foregone mining

opportunity that are not included in the draft economic analysis.

(86) *Comment:* Several commenters stated that the designation does not adequately estimate costs associated with delays in permitting of mining projects.

Our Response: The draft economic analysis assumes that given sufficient knowledge of the regulatory environment, the various administrative activities associated with the Act can generally be coordinated with other regulatory processes and do not necessarily increase the time to obtain approvals.

(87) *Comment:* One commenter stated that critical habitat designation may create an additional administrative burden on mining projects due to increased litigation.

Our Response: The draft economic analysis only considers costs that are reasonably foreseeable. While critical habitat designation may stimulate additional legal actions, there is no data to support this theory or estimate impacts. The number, scope and timing of potential legal challenges associated with the rulemaking would be difficult to quantify.

(88) *Comment:* One commenter stated that the draft economic analysis is unclear regarding the basis of impacts to water management at Loveland and Cuyamaca Reservoir and how impacts are calculated.

Our Response: In the future, the Service may request specific water management changes within arroyo toad critical habitat designation. The draft economic analysis assumes that the Service will request that the managers of the Loveland and Cuyamaca Reservoirs forego water releases during the arroyo toad breeding season to avoid impacts. The draft economic analysis calculates economic impacts based on the assumption that the Service will request that these water managers not conduct major water releases during the arroyo toad breeding season (*i.e.*, March 15 through June 15). The draft economic analysis conservatively estimates that 50 percent of the foregone release volume will require replacement due to losses from percolation and evaporation. To calculate the expected water release volume during the breeding season, the analysis relies on historical water release data provided by the Sweetwater Authority and the Helix Water District. Expected water releases in the future are calculated based on historical averages.

(89) *Comment:* Several commenters stated that the draft economic analysis adjusts water losses resulting from foregone releases using an arbitrary percentage.

Our Response: In some cases, water releases may be conducted during winter months rather than during the breeding season. This operational flexibility may allow water managers to avoid cost impacts associated with arroyo toad conservation. The adjustment of water losses is intended to reflect the potential for operational flexibility in water system management. Due to uncertainty concerning the degree of operational flexibility, the draft economic analysis presents a sensitivity analysis addressing this assumption.

(90) *Comment:* One commenter stated that the draft economic analysis fails to recognize that if more imported water is used, then less water will be available for water purveyors and water dependent species.

Our Response: Water used (or lost) as a result of arroyo toad conservation activities will be a small proportion of total water demands, as discussed on page 58 of the draft economic analysis. While there may be localized supply impacts, the location and economic implication of such constraints are difficult to determine. Overall, these impacts are not expected to be significant.

(91) *Comment:* One commenter stated that the draft economic analysis fails to recognize that water supplies are limited, especially during drought conditions. The commenter suggests that supply constraints will increase the economic burden on water agencies.

Our Response: The draft economic analysis estimates costs to water managers based on average conditions. In reality, some years are wetter or dryer than others. Special operational constraints affecting water managers in dry years or drought years are not analyzed by the draft economic analysis. Development of an economic analysis evaluating all water-year types for each water agency and district affected by critical habitat designation is beyond the scope of the draft economic analysis. Dry-year constraints may create an additional economic burden for water managers.

(92) *Comment:* One commenter stated that the draft economic analysis relies upon incorrect water replacement prices.

Our Response: EPS contacted water managers to determine water replacement costs in areas expected to be affected by arroyo toad conservation efforts. The draft economic analysis relies on these reported costs. If the actual cost of water is higher (or lower) than the reported cost, the economic impacts will also be higher (or lower).

(93) *Comment:* One commenter stated that the draft economic analysis fails to consider operational constraints related to dam safety and other protected species at Cuyamaca Reservoir.

Our Response: The draft economic analysis assumes that the Service will request that water managers forego major water releases from Cuyamaca Reservoir during the arroyo toad breeding season. However, in reality the Service may need to alter this request to account for site-specific factors. This level of detail is beyond the scope of the draft economic analysis. The economic implications of site specific constraints on arroyo toad conservation are unknown.

(94) *Comment:* One commenter stated that the draft economic analysis fails to consider economic impacts borne by Helix Water District due to potential management changes at El Capitan Reservoir.

Our Response: The draft economic analysis estimates costs associated with potential management changes at El Capitan Reservoir. It is possible that some of these estimated costs will be passed on to the Helix Water District, affecting the distribution of economic impacts rather than the total economic impact.

(95) *Comment:* One commenter stated that the draft economic analysis fails to include significant additional costs to water managers attributable to additional consultations and increased scrutiny from the California Department of Fish and Game and the Army Corps of Engineers.

Our Response: While it is possible that critical habitat designation will increase scrutiny of water operations, any associated economic impacts are primarily administrative and not reasonably foreseeable. The draft economic analysis does not estimate these impacts due to their speculative nature.

(96) *Comment:* One commenter stated that pipeline construction costs do not consider economic effects from potential mitigation measures, delay or uncertainty.

Our Response: Because pipeline construction is intended to benefit the arroyo toad, the Service is unlikely to request additional mitigation. The historical record for arroyo toad protection by the Service supports this assumption. Consequently, the draft economic analysis does not estimate additional impacts associated with pipelines intended to improve habitat for the arroyo toad.

Summary of Changes From the Proposed Rule

In developing the final designation of critical habitat for the arroyo toad, we reviewed public comments received on the proposed designation of critical habitat published on April 28, 2004, and revisions to proposed critical habitat and the draft economic analysis published on February 14, 2005 (70 FR 7459); conducted further evaluation of lands proposed as critical habitat; refined our mapping methodologies; and excluded additional essential habitat from the final designation. Table 1, included at the end of this section, outlines changes in acreages for each subunit. Specifically, we are making the following changes to the final rule from the proposed rule published on April 28, 2004:

(1) We mapped critical habitat more precisely by eliminating habitat areas of marginal quality that we do not expect to be used by arroyo toads. In certain upland locations, we determined that busy, paved roads and railroads constituted barriers to toad movement into the uplands. These roads and railroads were found in areas of relatively steep slopes and were supported by steeply-constructed embankments. Where marginal upland habitat was found behind these barriers, it was removed from critical habitat because we did not consider it essential to the arroyo toad population. This more precise examination of essential areas led to a modest reduction in total designated critical habitat acreage from the proposed rule.

(2) Although we attempted to remove as many developed areas (areas that have no value as arroyo toad habitat) as possible before publishing the proposed rule, we were not able to eliminate all developed areas. Since publication of the proposed rule, we were able to further eliminate a small amount of developed area, which has resulted in a more precise delineation of essential habitat containing one or more of the primary constituent elements. This resulted in a minor reduction in the total acreage published in the proposed rule. However, it is not possible to remove each and every one of these developed areas even at the refined mapping scale used; therefore, the maps of the designation still include areas that do not contain primary constituent elements. These areas are not being designated as critical habitat.

(3) In some cases, the 82-foot (ft) (25-meter (m)) elevation criteria in the model used to determine the extent of the essential upland habitat for arroyo toads extended the upstream or

downstream critical habitat boundary beyond the starting and ending points of the essential stream segment (*i.e.*, into areas containing habitat of lower quality). These areas were not intended to be included as critical habitat and were removed from the designation, leading to a minor reduction in the total acreage published in the proposed rule.

(4) We revised the criteria used to identify essential upland habitat. We modified the model to capture upland habitat up to a 1,640 ft (500 m) distance from the essential stream, rather than a 4,921 ft (1,500 m) distance, if the 82-ft (25-m) elevation limit had not yet been reached. In a majority of the stream reaches, the model reached the 82-ft (25-m) elevation limit before it reached the 1,640 ft (500 m) distance from the essential stream, and therefore the distance limit was often not a factor.

We based this 1,640 ft (500 m) distance limit on the results of an arroyo toad study on Marine Corps Base, Camp Pendleton (Camp Pendleton) in San Diego County (Holland and Sisk 2000), which is the most indepth, complete study of the distribution and use of upland habitat by arroyo toads. Holland and Sisk (2000) used extensive pitfall trap arrays at various distances from a riparian wash area to document toad use of adjacent upland areas. They captured approximately 12 percent of their toads in the upland areas, while the rest were caught in the riparian wash. Of the toads caught in uplands areas, 68 percent of the toads were captured within 1,640 ft (500 m) of the riparian wash. Although the absolute maximum distance toads may travel cannot be determined by the pitfall trapping method, a few toads were caught at distances greater than 3,281 ft (1,000 m) from the riparian wash area. Since it is not our intent to capture the maximum distance that toads have been recorded to travel from riparian areas as critical habitat, we have determined that upland habitat up to 1,640 ft (500 m) from riparian areas is habitat that is essential for the arroyo toad.

(5) We revised the criteria used to identify essential stream reaches. Upstream areas from known occupied sites were removed from the designation. Under the Act, the Secretary of the Interior may only include lands if she finds that those lands are essential to the conservation of the species. In the case of the arroyo toad, and based on the best scientific data available, it was not possible for the Secretary at this time to make such a determination for upstream areas that were not known to be occupied by the arroyo toad. We defined essential occupied areas as those areas within

approximately 0.7 miles (1.1 km) up and down stream from where the species is known to have occurred at the time of listing or subsequently. The arroyo toad was listed as an endangered species in 1994, and we define "at the time of listing" for the arroyo toad as the period from 1974 to 1994. The 0.7 mile (1.1 km) movement distance was selected from a variety of studies demonstrating that arroyo toads will move this distance over the course of a year or so (Sweet 1993; Griffin 1999; Holland and Sisk 2001; Ramirez 2002a; Hitchcock et al. 2004). The upper-bounds of essential streams were defined by the uppermost toad occurrence in a stream with its corresponding 0.7 mile (1.1 km) movement distance. Any proposed critical habitat areas not known to be occupied that were upstream from this were removed from designated critical habitat. This resulted in the removal of several upstream areas previously proposed as critical habitat in a number of units, but was greatest in (sub) units 2, 5a, 6c, 8, 10a, 11a, 12b, 13a and b, 16c and d, 17a, 17d, 18a, 19a and d, 20, 21, 22a, and 23. (Sub)units 7a, 17b, 17c, and 18d were completely removed from critical habitat because these (sub)units were not known to be occupied. We did not truncate or remove any critical habitat downstream from known observations because toads, particularly tadpoles, have been known to be washed downstream, particularly during rain events, into suitable habitat.

(6) In subunit 6b, we have determined that San Francisquito Creek above the Newhall Ranch Road bridge does not contain the primary constituent elements of arroyo toad critical habitat. It is drier than we had originally thought and lacks surface water for a sufficient duration during the spring

time of most years to allow for arroyo toad tadpole development. Thus, this portion of San Francisquito Creek, which was included in the proposed rule, does not provide breeding habitat for arroyo toads and we no longer consider it to be essential for the conservation of the species. This resulted in a reduction of 1,463 acres in subunit 6b. Below the Newhall Ranch Road bridge, arroyo toads inhabiting the Santa Clara River may disperse into lower San Francisquito Creek to forage and aestivate; we still consider this reach of San Francisquito Creek to be essential habitat.

(7) We no longer consider the arroyo toad habitat within subunit 22b, a stretch of the Mojave River running through Victorville in San Bernardino County, to be essential to the conservation of the species and have therefore removed this subunit from the final designation. Although we do not have new data concerning arroyo toads in this area, we further analyzed and reevaluated the existing data (and lack thereof) to arrive at this decision. This subunit runs through the relatively urbanized area of Victorville and involves numerous private landowners. Much of the upland habitats along the Mojave River in this area have been developed, and even areas within the floodplain have been developed, which are protected by levees. Exotic predators of the arroyo toad have also invaded this portion of the river. Additionally, the occupancy of subunit 22b by arroyo toads is questionable at best. Arroyo toads were rumored to occur in the Victorville area sometime during the 1990s, probably associated with the last significant El Niño event; however, there have been no confirmed reports from this area since 1982. The recovery

plan (Service 1999) states that arroyo toads are presumed extinct in this reach.

(8) We excluded several areas under Section 4(b)(2) of the Act and exempted several areas under section 4(a)(3) of the Act from the final critical habitat designation (see the Application of Sections 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion). This is the primary source of reduction in total designated critical habitat acreage that was identified in the proposed rule. Exemptions under section 4(a)(3) included portions of Units 11 and 12 on Marine Corps Base, Camp Pendleton and portions of Unit 12 on Naval Weapons Station, Seal Beach, Detachment Fallbrook based on their approved INRMPS. Exclusions pursuant to section 4(b)(2) based on economic considerations included all of Units 3, 5, 6, 7, 10, 13, 14, 15, 16, 17, 18, 19, and 22 and portions of Units 11 and 12. Other exclusions pursuant to section 4(b)(2) based on approved HCPs included Unit 8 (Orange County Central-Coastal Subregional HCP/NCCP) and portions of Unit 9 (Western Riverside MSHCP) and based on a nearly completed HCP included portions of Unit 23 (pending Coachella Valley MSHCP). Several portions of units that were formerly excluded in the proposed rule for being under approved HCPs or in the revised proposed rule for private lands covered under special management plans that were beneficial to the arroyo toad were changed in the final rule to be solely excluded for economic considerations pursuant to section 4(b)(2). This change included portions of Units 6, 13, 16, 17, 18, 19, and 22.

TABLE 1.—CRITICAL HABITAT UNITS FOR THE ARROYO TOAD

Critical habitat units/subunits	County	Proposed rule (April 28, 2004) ac; ha	Final rule ac; ha
1. San Antonio River	Monterey	6,546; 2,649	0
2. Sisquoc River	Santa Barbara	6,574; 2,660	4,800; 1,942
3. Upper Santa Ynez River Basin	Santa Barbara	4,414; 1,786	0
4. Sespe Creek	Ventura	4,138; 1,675	4,008; 1,622
5. Piru Creek	Ventura, L.A	3,966; 1,6050	0
6. Upper Santa Clara River Basin	Los Angeles	7,398; 2,994	0
7. Upper Los Angeles River Basin	Los Angeles	4,213; 1,705	0
8. Black Star and Baker Creeks	Orange	172; 69	0
9. San Jacinto River Basin/Bautista Creek	Riverside	683; 277	700; 283
10. San Juan Creek Basin	Orange, Riverside	6,285; 2,543	0
11. San Mateo Basin	Orange, San Diego	4,580; 1,853	0
12. Lower Santa Margarita Basin	San Diego	1,840; 744	0
13. Upper Santa Margarita Basin	Riverside, San Diego ..	3,628; 1,468	0
14. Lower and Middle San Luis Rey Basin	San Diego	15,376; 6,222	0
15. Upper San Luis Rey Basin	San Diego	11,725; 4,745	0
16. Santa Ysabel Creek	San Diego	11,080; 4,484	0
17. San Diego River Basin	San Diego	2,309; 934	0
18. Sweetwater River Basin	San Diego	9,235; 3,737	0

TABLE 1.—CRITICAL HABITAT UNITS FOR THE ARROYO TOAD—Continued

Critical habitat units/subunits	County	Proposed rule (April 28, 2004) ac; ha	Final rule ac; ha
19. Cottonwood Creek Basin	San Diego	15,800; 6,394	0
20. Upper Santa Ana River Basin/Cajon Wash	San Bernardino	1,263; 511	1,119; 453
21. Little Rock Creek	Los Angeles	941; 381	734; 297
22. Upper Mojave River Basin	San Bernardino	14,550; 5,848	0
23. Whitewater River	Riverside	1,997; 808	333; 135
Totals		138,713; 56,133	11,695; 4,733

Critical Habitat

Critical habitat is defined in section 3(5)(A) of the Act as—(i) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. “Conservation” means the use of all methods and procedures that are necessary to bring an endangered or a threatened species to the point at which listing under the Act is no longer necessary.

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 at the time of listing 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)).

Specific areas within the geographic area occupied by the species 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).) 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 was not known to be occupied at the time of listing will likely be essential to the conservation of the species and, therefore, included in the critical habitat designation.

Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), and our associated Information Quality Guidelines, provides criteria and guidance, and establishes procedures to ensure that our decisions represent the best scientific and commercial data available. Our biologists are required, 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 designated as critical habitat, a primary source of information is generally the listing package for the species. Additional information sources include a recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties or other entities that develop HCPs, 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 the best scientific data available. 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.

Methods

As required by section 4(b)(1)(A) of the Act, we use the best scientific and commercial data available in determining areas that are essential to the conservation of the arroyo toad. Our methods for identifying the arroyo toad critical habitat included in this final designation are those methods we used to make our final designation for this species on February 7, 2001 (66 FR 9414) and in our subsequent proposal of critical habitat for the arroyo toad, published on April 28, 2004 (69 FR

23253) as modified in accordance with our discussion in the Summary of Changes section above. In addition, we used information and data (such as newly obtained survey results; San Marino Environmental Associates 1995, RECON 1999, Compliance Biology 2004) received during the public comment periods following both the April 28, 2004, proposed rule and the February 14, 2005, revisions to proposed critical habitat and notice of availability of the draft economic analysis, and communications with individuals inside and outside the Service who are knowledgeable about the species and its habitat needs.

We have also reviewed available information that pertains to the habitat requirements of this species, including material received since completion of the recovery plan. The material included data in reports submitted during section 7 consultations and by biologists holding section 10(a)(1)(A) recovery permits; research published in peer-reviewed articles and presented in academic theses and agency reports; regional Geographic Information System (GIS) coverages; occupied and potential habitat maps developed by the Forest Service (Forest Service 2000); habitat evaluation models for the San Diego County Multiple Species Conservation Program (MSCP), the North San Diego County Multiple Habitat Conservation Program (MHCP), and the North County Subarea of the MSCP for Unincorporated San Diego County; and a predictive habitat suitability map for San Diego County (Barto 1999).

Primary Constituent Elements

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

The specific PCEs required for the arroyo toad are derived from the

biological needs of the arroyo toad as described in the Background section of the proposed rule (69 FR 23253). These specific biological and physical features, or PCEs, which are essential to the conservation of the arroyo toad are described below. Identified lands provide aquatic and terrestrial habitat containing the essential PCEs supporting the maintenance of self-sustaining populations and metapopulations (a set of local populations or breeding sites within an area, where typically migration from one local population or breeding site to other areas containing suitable habitat is possible, but not routine) of arroyo toads throughout its range.

Space for Individual and Population Growth, and for Normal Behavior

The arroyo toad is found along medium-to-large-sized streams in coastal and desert drainages in central and southern California and Baja, Mexico. It occupies aquatic, riparian (areas near a source of water), and upland habitats within its range. Suitable habitat for the arroyo toad is created and maintained by the fluctuating hydrological, geological, and ecological processes operating in riparian ecosystems and the adjacent uplands. Periodic flooding that modifies stream channels, redistributes channel sediments, and alters pool location and form, coupled with upper terrace stabilization by vegetation, is required to keep a stream segment suitable for all life stages of the arroyo toad. Periodic flooding helps maintain areas of open, sparsely vegetated, sandy stream channels and terraces (Sweet 1992; Griffin and Case 2001).

Eggs and tadpoles require aquatic habitat, as described below under "Sites for Breeding, Reproduction and Rearing of Offspring." Juvenile and adult arroyo toads require and spend much of their lives in riparian and upland habitats adjacent to breeding locations. Riparian habitats used by subadults and adults for foraging and burrowing year round include sand bars, alluvial terraces, and streamside benches that lack vegetation, or are sparsely to moderately vegetated (Sweet 1992; Holland and Sisk 2001). Upland habitats used by arroyo toads during both the breeding and nonbreeding seasons include alluvial scrub, coastal sage scrub, chaparral (shrubby plants adapted to dry summers and moist winters), grassland, and oak woodland (Griffin and Case 2001). Arroyo toads also have been found in agricultural fields (Griffin 1999), but these lands may constitute sinks (areas where mortality rates are higher than reproduction rates) over the long-term,

due to tilling, pesticide and fertilizer applications, and heavy equipment use (Griffin and Case 2001).

The substrate in habitats preferred by arroyo toads consists primarily of sand, fine gravel, or pliable soil, with varying amounts of large gravel, cobble, and boulders. Areas that are damp and have less than 10 percent vegetation cover provide the best conditions for juvenile survival and rapid growth (Sweet 1992). Arroyo toads must be able to move between the stream and upland foraging sites, as well as up and down the stream corridor. Holland and Sisk's (2001) study on arroyo toad habitat use in coastal San Diego County revealed toads traveling considerable distances (up to at least 0.71 mi (1.14 km)) from the edge of the upland/riparian ecotone (*i.e.*, boundary or interface). In all study areas, they found that toads were captured as far out as the pitfall trap arrays were set for them: 0.71 mi (1.14 km) at Cristianitos Creek (east side), 0.56 mi (0.9 km) at Cristianitos Creek (west side), and 0.37 mi (0.6 km) at Santa Margarita River. Given the contiguous nature of the habitat beyond where the traps were set, toads may have traveled farther from the riparian area had the pitfall arrays been set further back and not limited in distribution. Arroyo toads use a wide range of upland vegetation types, including chaparral, coastal sage scrub, oak woodland, grasslands, agricultural lands, and ruderal/disturbed areas for foraging, burrowing, and aestivating (Griffin and Case 2001; Holland and Sisk 2001). Friable or readily crumbled soils that allow toads to burrow are oftentimes patchily distributed in the upland areas. Upland areas not containing friable soils are still important for toads because they may still contribute as foraging grounds where toads can hunt for their prey or migration areas between foraging, burrowing, or aestivating areas; toads may also occupy the burrows of other animals in areas where the soils are too hard for them to burrow into (Griffin 1999).

Within stream and river movements by arroyo toads is another important aspect of their life history. Arroyo toads move within streams and rivers to find suitable breeding and foraging habitats as well as potential mating partners. In some situations, arroyo toad larvae swim or are flushed down stream due to heavy currents (Griffin 1999). Several radio telemetry studies by Ramirez (2002a, 2002b, 2002c) documented toads moving on several occasions around 0.7 miles. In one instance, a toad was recorded moving 0.6 mile within one week. These studies were never

more than approximately 5 months in duration and therefore it is possible that lifetime toad movements could be even longer. Sweet (1993) also documented toad movements of at least 0.7 mile before toads left his study area. Griffin (1999) documented a toad moving downstream 0.64 mi (1025 m) over 42 days before escaping its transmitter. Although it is well documented that toads can travel 0.7–0.8 mile within a stream or river over the course of a season, it is possible that these represent minimum distances since anecdotal evidence exists of toads recolonizing suitable breeding pools that are of greater distances from other breeding pools.

Food and Water

Arroyo toad tadpoles eat microscopic algae, bacteria, and protozoans from the spaces among pebbles, gravel, and sand or abraded from stones (Sweet 1992). Juveniles and adults feed on insects, but specialize on ants. When foraging, arroyo toads are often found around the driplines of oak trees (Sweet 1992). These areas often lack vegetation, yet have sufficient levels of prey. When active at night, toads often can be observed near ant trails feeding on ants, beetles, and other prey.

Water in the form of shallow pools along streams is essential for arroyo toad breeding (see Sites for Breeding, Reproduction and Rearing of Offspring below).

Cover or Shelter

During the day and other periods of inactivity, arroyo toads seek shelter by burrowing into the sand (Sweet 1992). Thus, areas of sandy or friable (readily crumbled) soils are necessary for the animals to burrow, but these soils can be interspersed with gravel or cobble deposits. Arroyo toads may also seek temporary shelter under rocks or debris and have been found in mammal burrows on occasion (Griffin 1999). Upland sites with extremely compact soils can also be used for foraging and dispersal (D. Holland, in litt. 2000).

Sites for Breeding, Reproduction and Rearing of Offspring

The arroyo toad has specialized breeding habitat requirements. They favor shallow pools located in open sand and gravel channels, along low-gradient (typically less than 6 percent) reaches of medium-to-large-sized streams (Sweet 1992). These streams can have either intermittent or perennial streamflow, and typically experience periodic flooding that scours vegetation and replenishes fine sediments. In at least some portions of its range, the

species also breeds in smaller streams and canyons where low-gradient breeding sites are more sporadically distributed. Breeding pools must persist long enough for the completion of larval development (at least in most years), which is generally March through June, depending on location and weather. Sweet (1992) measured the average age-to-metamorphosis of arroyo toad larvae on the Los Padres National Forest at 71 days, with a predicted minimum age-to-metamorphosis of 62 days. Most arroyo toads metamorphose during June and July in the northern part of the toad's range, and from late April through June in the southern portion of its range, although it may be later, particularly at higher elevations (D. Holland, in litt. 2000).

Breeding arroyo toads lay their eggs in water over substrates of sand, gravel, or cobble in open sites such as overflow pools, old flood channels, and shallow pools along streams (Sweet 1992). Such habitats rarely have closed canopies over the lower banks of the stream channel due to periodic flooding events. Heavily shaded pools are generally unsuitable for larval and juvenile arroyo toads because of lower water and soil temperatures, and poor algal mat development. Pools less than 12 inches (30 centimeters (cm)) deep with clear water that have flow rates less than 0.2 ft per second (5 cm per second), and bottoms composed of sand or well-sorted fine gravel, are favored by adults for breeding and egg deposition (Sweet 1992). Larvae usually hatch in 4 to 6 days at water temperatures of 54 to 59 degrees Fahrenheit (12 to 16 degrees Celsius). Although egg strings are laid in slow moving water, larvae (tadpoles) can be found in streams with water velocities of up to 1.0 to 1.3 ft per second (30 to 40 cm per second) (Sweet 1992).

Pursuant to our regulations, we are required to identify the known physical and biological features or PCEs, essential to the conservation of the arroyo toad, together with a description of any critical habitat that is designated. Based on our current knowledge of the life history, biology, and ecology of the species and the requirements of the habitat to sustain the essential life history functions of the species, we have determined that the arroyo toad's primary constituent elements are:

1. Rivers or streams with hydrologic regimes that supply water to provide space, food, and cover needed to sustain eggs, tadpoles, metamorphosing juveniles, and adult breeding toads. Specifically, the conditions necessary to allow for successful reproduction of arroyo toads are:

- a. Breeding pools with areas less than 12 in (30 cm) deep;
- b. Areas of flowing water with current velocities less than 1.3 ft per second (40 cm per second); and
- c. Surface water that lasts for a minimum length of 2 months in most years (*i.e.*, a sufficient wet period in the spring months to allow arroyo toad larvae to hatch, mature, and metamorphose).

2. Low-gradient stream segments (typically less than 6 percent slope) with sandy or fine gravel substrates that support the formation of shallow pools and sparsely vegetated sand and gravel bars for breeding and rearing of tadpoles and juveniles.

3. A natural flooding regime, or one sufficiently corresponding to a natural regime, that will periodically scour riparian vegetation, rework stream channels and terraces, and redistribute sands and sediments, such that breeding pools and terrace habitats with scattered vegetation are maintained.

4. Riparian and adjacent upland habitats (*e.g.*, alluvial scrub, coastal sage scrub, chaparral, and oak woodlands, but particularly alluvial streamside terraces and adjacent valley bottomlands that include areas of loose soil where toads can burrow underground) to provide foraging, aestivation, and living areas for subadult and adult arroyo toads.

5. Stream channels and adjacent upland habitats allowing for migration between foraging, burrowing, or aestivating sites, dispersal between populations, and recolonization of areas that contain suitable habitat.

These aquatic, riparian, and upland habitat PCEs form the bases of our critical habitat units. These features are essential to the conservation of the arroyo toad. All lands identified as essential and designated as critical habitat contain one or more of the PCEs for the arroyo toad.

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 primary constituent elements of the arroyo toad. In a few instances, designated areas were not known to be occupied at the time of listing, but have been determined to be essential to the conservation of the species and have some or all of the toad's primary constituent elements (see unit descriptions for specific discussions). Drainage basins containing features essential to the conservation of the arroyo toad are generally reflected in this final critical habitat designation. This critical habitat designation focuses

on providing sufficient breeding, riparian, and upland habitats for the arroyo toad, thus promoting the conditions for maintaining self-sustaining arroyo toad populations and metapopulations across their historic range in California. Since arroyo toads are found in a variety of ecologically and geographically distinct areas, it is important to preserve the species' genetic diversity as well as the variety of ecological environments in which it is endemic.

We determined an area was essential if it had one or more of the following characteristics: (1) Supports a substantial core population of arroyo toads; (2) supports at least a small toad population and possesses favorable habitat conditions for population expansion and persistence; (3) suitable habitat situated in a location that appears to be crucial for maintaining the viability of a larger metapopulation; (4) occupied habitat on the periphery of the arroyo toad's geographic range; and (5) occupied habitat in atypical or underrepresented ecological environments (*e.g.*, high elevation or desert-edge populations). These areas were known to be occupied at the time of listing or subsequently and have one or more of the primary constituent elements described above.

Areas supporting core populations or that have the potential to support large populations were determined to be essential because they represent the foundation for continued persistence of the species. Furthermore, some habitat areas that would not be considered essential if geographically isolated, are in fact essential when situated in locations where they facilitate continued connectivity and dispersal of individuals between surrounding adjacent populations or play a significant role in maintaining metapopulation viability (*e.g.*, by providing additional areas of occupancy that provide resilience to periodic extirpations of adjacent habitat patches) (Hunter 2002). Populations on the periphery of the species range or in atypical ecological environments are important for maintaining the genetic diversity of the species, which is important for evolutionary adaptations to changing climatic and environmental conditions (Hunter 2002).

To identify and map areas that are essential, we determined areas that contained the essential features as described above, used data on known arroyo toad locations, and data on movement distances by arroyo toads. Arroyo toad locations were from the California Natural Diversity Data Base (CNDDDB 2005) and information from

biologists that have not yet been entered into the data base; only locations from the time of listing (1974 to 1994) up through the present were used. Spatial data on stream gradients with grades less than 6 percent, aerial photography, surveys of habitat suitability, and site visits were all used to determine the extent of suitable breeding habitat in these areas. We identified occupied areas on stream reaches containing suitable breeding habitat, along with interspersed, interconnecting higher gradient segments, as essential. Occupied areas were defined as stream reaches in which the species was observed that contain contiguous stretches of suitable habitat. Occupancy extended up to approximately 0.7 mile (1.1 km) upstream from the upper-most arroyo toad observation to accommodate within-stream movements by toads. The 0.7 mile (1.1 km) instream movement distance was selected from a variety of studies demonstrating that arroyo toads travel this distance over the course of about a year (Sweet 1993; Griffin 1999; Holland and Sisk 2001; Ramirez 2002a; Hitchcock *et al.* 2004). Interspersed higher gradient stream segments are often patchily distributed within stream reaches and were included as essential stream reaches because of their proximity to suitable breeding habitat and their importance in facilitating movement between breeding sites. The upper most bound of an essential stream reach was determined by the upper most occupied area. The change in upstream critical habitat areas from the proposed critical habitat rule is discussed above in the Summary of Changes from the Proposed Rule section.

To delineate essential upland habitat areas, we used a GIS-based modeling procedure to identify alluvial terraces, valley bottomlands, and upland habitats adjacent to stream reaches known to be occupied by the arroyo toad. Lacking spatially explicit data on geomorphology, we used elevation above the stream channel as an indicator of the extent of alluvial and upland foraging habitat. After some experimentation, we determined that areas up to 82 ft (25 m) in elevation above the stream channel were most likely to contain the riparian and upland habitat elements essential to arroyo toads. Most arroyo toad activity and movement occurred within these areas and steeper slopes away from the stream were eliminated. However, in flat areas, we truncated the upland habitat delineation at a distance of 1,640 ft (500 m) from the stream channel if the 82 ft (25 m) elevation limit had not yet

been reached at that point. The 82 ft (25 m) elevation limit was reached at distances less than 1,640 ft (500 m) from the mapped stream channel along the majority of the stream reaches, so the distance limit was often not a factor. We based the 82 ft (25 m) or 1,640 ft (500 m) limit on the results of an arroyo toad study on Camp Pendleton in San Diego County (Holland and Sisk 2000), which is by far the most indepth, complete study of the distribution and use of upland habitat by arroyo toads. Holland and Sisk (2000) established extensive pitfall trap arrays at different distances and locations and operated the traps at different times of the year over several years. Eighty-eight percent of the adult and sub-adult toads were captured in the riparian wash area. Although a few toads were caught at distances of 1,000 m or more from the riparian wash area, approximately 68 percent of the arroyo toads found in upland habitats were within 1,640 ft (500 m). The change in upland distance from the proposed critical habitat rule is discussed above in the Summary of Changes from the Proposed Rule section.

This GIS-based modeling technique was effective at capturing alluvial areas associated with river valleys, and thus, the width of the upland component of critical habitat varies based on topography. The critical habitat designation widens in broad alluvial valleys and narrows in places where streams run through constricted canyons or between surrounding hills.

To provide legal boundaries for the critical habitat areas, critical habitat boundaries for all drainages were mapped as contiguous blocks of 100 m-by-100 m cells that conform to a Universal Transverse Mercator (UTM) grid.

To identify critical habitat units, we first examined those lands under Federal jurisdiction. Those lands include areas managed by the Department of Defense (DOD), the U.S. Forest Service, the Bureau of Land Management (BLM), the U.S. Army Corps of Engineers (Army Corps), and the Service. We also considered the existing status of non-Federal and private lands in designating areas as critical habitat. We also determined the extent of Tribal land areas as part of the critical habitat designation process. We have coordinated with the respective Tribes on this designation under the guidance of the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), E.O. 13175, and 512 DM 2, which requires us to coordinate with federally-recognized

Tribes on a Government-to-Government basis.

In determining critical habitat boundaries, we made every effort to exclude all developed areas, such as buildings, paved areas, and other lands unlikely to contain primary constituent elements essential for arroyo toad conservation. Our 100-meter UTM grid minimum mapping unit was used to minimize the amount of development along the urban edge included in our mapping areas. Any such structures, paved areas, or otherwise developed areas inadvertently left inside critical habitat boundaries are not considered part of the designated units. 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.

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 Protection

As a result of agriculture and urbanization, and the construction, operation, and maintenance of water storage reservoirs, flood control structures, roads, and recreational facilities such as campgrounds and off-highway vehicle parks, many arroyo toad populations have been reduced in size or extirpated (eliminated) due to extensive habitat loss from the 1920s into the 1990s (Campbell *et al.* 1996). Although these factors have not dramatically reduced the range of the arroyo toad, within its range many of the habitats that were historically capable of supporting large numbers of arroyo toads have been lost in the last 100 years. Jennings and Hayes (1994) believe that the loss of habitat, coupled with the manipulation of water levels in many central and southern California streams and rivers, predation from introduced aquatic species, and habitat degradation from introduced plant species, caused arroyo toads to be

extirpated from 76 percent of their previously occupied habitat in California. Through focused survey efforts over recent years, a few new arroyo toad populations have been discovered. Because of these recent efforts, however, it is unlikely that many more populations remain undiscovered, at least on public land.

When designating critical habitat, we assess whether the areas determined to be occupied at the time of listing and contain the primary constituent elements may require special management considerations or protection. As discussed throughout this final rule, our proposed rule published on April 28, 2004 (69 FR 23253), and our previous final designation of critical habitat for the arroyo toad (66 FR 9414, February 7, 2001), the arroyo toad and its habitat are threatened by a multitude of human-related activities, including but not limited to: alteration of the natural hydrological regime (*e.g.*, inundation of habitat behind dams, sediment trapping behind dams, water flow manipulations from dams and waste water treatment plants, ground water pumping, water diversions, channelization, bank stabilization, water contamination); degradation and loss of habitat through urbanization; the inadvertent or intentional introduction of nonnative species (*e.g.*, exotic predators, plants, and diseases); mining (*e.g.*, sand and gravel and suction dredge); agriculture (*e.g.*, loss of upland habitat and use of pesticides and herbicides); road placement within, across, or adjacent to river corridors; off-highway vehicle use in stream channels; livestock grazing (*e.g.*, trampling of arroyo toads and compaction of soils); and recreation (*e.g.*, campground placement on stream terraces, anglers, equestrians, hikers, and mountain bikers). While many of these threats operate concurrently and cumulatively with each other and with natural disturbances (*e.g.*, droughts and wildfires), the loss of existing habitat, alteration of stream flows, and the continued colonization of habitat by nonnative species, likely represent the most significant current threats to arroyo toads. As such, we believe that each area designated as critical habitat may require some level of management

and/or protection to address the current and future threats to the arroyo toad to ensure the overall recovery of the species. Such management considerations and protections would benefit the arroyo toad and its habitat because of the following: Exotic predators and pets may eat or injure arroyo toads; unnatural water releases from dams can wash away arroyo toad eggs and tadpoles, promote the growth of exotic species, or reduce the availability of open sand bar habitat; water diversions can dry a streambed prior to the completion of metamorphosis from tadpole to toad; toads can be crushed by channel maintenance, road construction, or the plowing of agricultural fields with heavy machinery; toads can be trampled during recreational activities; and arroyo toad habitat can be adversely affected by agricultural practices, the invasion of exotic species, and inundation from water impoundments. However, designation of critical habitat does not carry with it any requirement that landowners or land managers implement any special management or protection programs. Threats specific to each unit that may require special management considerations or protection are further discussed in the Unit Descriptions section.

Critical Habitat Designation

We are designating 6 units as critical habitat for the arroyo toad. The critical habitat areas described below constitute our best assessment at this time of areas we determined to be occupied at the time of listing, contain the primary constituent elements, and that may require special management. Units that are currently occupied, but were not known to be occupied at the time of listing, have been determined to be essential to the conservation of the species and have one or more of the species' primary constituent elements (see Unit Descriptions below). The 6 areas designated as critical habitat, plus the 17 units that have been excluded from critical habitat designation, are shown in Table 1 above. Table 2 below shows the approximate area designated as critical habitat for the arroyo toad by land ownership and county.

TABLE 2.—APPROXIMATE CRITICAL HABITAT IN ACRES (AC) (HECTARES (HA)) BY COUNTY AND LAND OWNERSHIP

County	Forest Service	BLM	FWS	Military	State/local	Tribal	Private	Total
Monterey	0	0	0	0	0	0	0	0
Santa Barbara	1,853 ac (750 ha)	0	0	0	0	0	2,947 ac (1,193 ha)	4,800 ac (1,942 ha)

TABLE 2.—APPROXIMATE CRITICAL HABITAT IN ACRES (AC) (HECTARES (HA)) BY COUNTY AND LAND OWNERSHIP—
Continued

County	Forest Service	BLM	FWS	Military	State/local	Tribal	Private	Total
Ventura	3,668 ac (1,494 ha)	0	0	0	0	0	340 ac	4,008 ac 1,622 ha)
Los Angeles	734 ac (197 ha)	0	0	0	0	0	0	734 ac (297 ha)
San Bernardino	492 ac (199 ha)	0	0	0	0	0	628 ac	1,120 ac (453 ha)
Riverside	700 ac (283 ha)	333 ac (135 ha)	0	0	0	0	0	1,033 ac (418 ha)
Orange	0	0	0	0	0	0	0	0
San Diego	0	0	0	0	0	0	0	0
Total	7,447 ac (3,013 ha)	333 ac (135 ha)	0	0	0	0	3,915 ac (1,585 ha) ...	11,695 ac (4,733 ha)

Unit Descriptions

Critical habitat and essential habitat that has been excluded includes arroyo toad habitat throughout the species' range in Monterey, Santa Barbara, Ventura, Los Angeles, Riverside, San Bernardino, Orange, and San Diego Counties, California. Lands we considered for critical habitat are under private, local agency, county, State, Tribal, and Federal ownership. We divided the lands we determined to be essential to the conservation of the species into 23 units. We are designating critical habitat in 6 units, and excluding the remaining 17 units for various reasons, as described in the exclusions section below. For those areas that have been excluded, the unit description is provided to define the unit and identify why we consider it essential to the conservation of the species. Although all of the units are within the geographic range of the species, we are not designating all of the areas known to be occupied by the arroyo toad. A brief description of each unit, reasons why it contains the features essential for the conservation of the arroyo toad, and the special management considerations particular to each unit, are presented below. Additionally, if a unit was not known to be occupied at the time of listing, we have also described why we have determined these units to be essential to the conservation of the species. The unit boundaries are generally based on geographically distinct river basins. In several instances, a river basin has been broken into two or more units based on human or natural landscape features that effectively separate portions of the basin (e.g., a large reservoir or gorge).

Unit 1: San Antonio River, Monterey County

We have excluded all essential lands in unit 1 including all lands on Fort

Hunter Liggett from the final critical habitat designation under section 4(b)(2) of the Act (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion). Unit 1 consists of 6,775 ac (2,742 ha) of the San Antonio River and adjacent uplands, from about 2 mi (3 km) upstream of the confluence with Mission Creek downstream to San Antonio Reservoir, a distance of about 17 mi (27 km), and includes small portions of Mission Creek and other tributaries. The vast majority of the lands within this unit are owned by the Army. The northernmost known population of arroyo toads is located here, and is approximately 100 mi (160 km) north of the nearest documented extant population. Arroyo toads were not known to occur within this area at the time the species was listed, but have since been observed along the entire length of this segment of the San Antonio River (Service 1999), which is still in a relatively natural state and consists of high-quality arroyo toad habitat. This area contains all the primary constituent elements, including breeding pools in low-gradient stream segments, sandy substrates, seasonal flood flows, and relatively undisturbed riparian habitat and upland benches for foraging and dispersal. The protection of this area is essential to maintaining the complete genetic variability of the species and the full range of ecological settings within which it is found, which is essential to the ability of the arroyo toad to adapt to changing environmental conditions. For these reasons we have determined this unit to be essential to the conservation of the species. Military operations (including occasional troop movements and weed control) in and near the riparian zone may create the need for special management considerations in this unit.

Unit 2: Sisquoc River, Santa Barbara County

Unit 2 consists of approximately 22 mi (36 km) of the Sisquoc River and adjacent uplands, from the vicinity of Abel Canyon Campground downstream to the confluence with La Brea Creek. The unit encompasses approximately 4,800 ac (1,942 ha) of which 61 percent is private land and 39 percent is within the Los Padres National Forest. Upper stretches of the river are within the National Forest and mostly within the San Rafael Wilderness Area. Below the National Forest boundary, the river and adjacent uplands are on rural, private lands. This long, undammed stream is occupied arroyo toad habitat and is one of the few remaining major rivers in southern California with a natural flow regime. Arroyo toads were known to occur within this area at the time the species was listed and have been found during recent surveys. This area contains all of the primary constituent elements, including breeding pools in low-gradient stream segments, sandy or fine gravel substrates, seasonal flood flows, and relatively undisturbed riparian/upland habitat for foraging and dispersal. Lands within this unit are threatened by grazing, sand and gravel mining, and limited recreational activities and require special management to reduce the impacts resulting from these threats.

Unit 3: Upper Santa Ynez River Basin, Santa Barbara County

All essential lands in unit 3 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Unit 3 is located upstream of Gibraltar Reservoir and incorporates portions of the upper Santa Ynez River, Indian Creek, Mono

Creek, and adjacent uplands. The unit encompasses approximately 3,106 ac (1,257 ha) within the boundaries of Los Padres National Forest, with 74 percent on National Forest lands and 26 percent on private non-residential inholdings. The segment of the upper Santa Ynez River designated as critical habitat extends approximately 7 mi (11 km) from the vicinity of Juncal Campground downstream to Gibraltar Reservoir. Indian Creek is designated from its confluence with Mono Creek upstream approximately 3 mi (5 km). Mono Creek and associated uplands are designated for approximately 6 mi (10 km) from Olgilvy Ranch downstream to its confluence with the Santa Ynez River. Arroyo toads were known to occur within this area at the time the species was listed and have been found during recent surveys. This area contains all of the primary constituent elements, including breeding pools in low-gradient stream segments, sandy or fine gravel substrates, seasonal flood flows, and relatively undisturbed riparian/upland habitat for foraging and dispersal.

A large and well-studied arroyo toad population occurs in this area (Sweet 1992, 1993). It is likely a remnant of a much larger population that historically extended downstream below what is now Lake Cachuma and upstream into the area occupied by Jameson Reservoir. The population along Mono Creek is one of the more robust populations of arroyo toads on the Los Padres National Forest and is free of exotic vertebrate predators for much of its length (Jamie Uyehara, Forest Service, pers. comm. 2003). Unit 3 is also the wettest area occupied by arroyo toads in the Northern Region (Teale Data Center 1998; California Irrigation Management Information System 2000).

It is likely that arroyo toads in this unit experience precipitation and soil moisture conditions that are not faced by toads at drier sites. Potential adaptations to these conditions make the protection of this area essential to maintaining the genetic diversity of the species. Because it is within, or is surrounded by, National Forest land, this area has favorable habitat conditions for population persistence. The arroyo toad population currently inhabiting Mono and Indian Creeks is particularly healthy and could be used as a source for the reestablishment of arroyo toads in downstream reaches of the Santa Ynez River, if warranted. The leading threats to arroyo toads in this area that require special management are primarily along the lower Santa Ynez River and lower Mono Creek and include exotic species (e.g., bullfrogs),

recreation, water withdrawals, and problems associated with an upstream dam (e.g., sediment trapping, altered hydrological regime, temperature changes).

Unit 4: Sespe Creek, Ventura County

Unit 4 includes 20 mi (32 km) of Sespe Creek and adjacent uplands, from the confluence with Tule Creek downstream to the confluence with Alder Creek. The unit encompasses approximately 4,008 ac (1,622 ha), of which 92 percent is on the Los Padres National Forest, primarily within the Sespe Wilderness. The remainder is in remote, private inholdings. Arroyo toads were known to occur within this area at the time the species was listed and have been found during recent surveys. One of the largest arroyo toad populations on the Los Padres National Forest occurs in this unit along Sespe Creek (Forest Service, in litt. 1999), which is undammed and retains its natural flooding regime. This core population is spread over large areas of high quality habitat, including numerous high-quality breeding pools, an abundance of sandy substrates, unimpeded seasonal flood flows, and relatively undisturbed riparian habitat and upland benches for foraging and dispersal (Sweet 1992). Up to several hundred adult arroyo toads inhabit this reach of the Sespe River (Sweet 1992, 1993), and during years of successful reproduction, such as 2003, thousands of juveniles can be found as well (Tom Murphy, Forest Service, pers. comm. 2003).

Arroyo toads have been found up to 3,300 ft (1,000 m) in elevation in this area, which is one of the highest known occurrences in the Northern Region. The arroyo toads in this unit likely experience temperature extremes or other environmental conditions not faced by toads at lower elevations. Potential adaptations to these conditions make the protection of this area essential for the maintenance of the genetic diversity of the species. Impacts to the Sespe Creek habitat that require special management are from recreational activities (e.g., horseback riding, hiking, and other trail use) and exotic predators (e.g., bullfrogs) (Sweet 2003). Special management is needed in this unit to reduce or eliminate the impacts from recreation and reduce or eliminate exotic predators.

Unit 5: Piru Creek, Ventura and Los Angeles Counties

All essential lands in unit 5 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and

4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Unit 5 encompasses approximately 2,921 acres (1,182 ha) of which 83 percent is within the Los Padres and Angeles National Forests, with the remaining area on a few private inholdings. This unit is divided into two subunits. Subunit 5a encompasses approximately 8 mi (13 km) of Piru Creek and adjacent uplands from the vicinity of Frazier Creek downstream to Pyramid Reservoir. Subunit 5b encompasses approximately 9 mi (15 km) of Piru Creek from the confluence with Fish Creek downstream to Lake Piru. It also includes approximately 1 mi (1.6 km) of Agua Blanca Creek upstream from its confluence with Piru Creek. Subunit 5a is in a remote setting within the Los Padres National Forest, and most of subunit 5b is within the Sespe Wilderness. Arroyo toads were known to occur within this area at the time the species was listed and have been found during recent surveys.

Although much of the historical arroyo toad habitat along Piru Creek is now inundated by the two reservoirs, a substantial arroyo toad population occurs in this unit (Sweet 1993). The upper portion of subunit 5a is free of exotic vertebrate predators, and the arroyo toad population in this area has been increasing and expanding over the past several years (J. Uyehara, pers. comm. 2003). The expansion of the population is likely due, in part, to seasonal campground closures and the elimination of suction-dredge mining. Because lower Piru Creek (subunit 5b) is below a large dam, the habitat there has experienced some degradation over the years from perennial water releases, rapid changes in flow volume, excessive flows during the breeding season, and an increased presence of exotic predators. However, future releases from Pyramid Dam are scheduled to more closely mimic natural flows and benefit the arroyo toad (Eva Begley, California State Division of Water Resources, pers. comm. 2003). This should result in an expanded, stable population distributed over areas of good-to-excellent habitat that is generally undisturbed by human activities. Both upper and lower Piru Creek contain all of the primary constituent elements, including breeding pools in low-gradient stream segments, sandy substrate, seasonal flood flows (modified to some extent below Pyramid Dam), and riparian habitat and upland benches for foraging and dispersal. Special management considerations are required to address threats posed by horse and cattle grazing, recreation, and unnatural flows

that could potentially be released from Pyramid Dam.

Unit 6: Upper Santa Clara River Basin, Los Angeles County

All essential lands in unit 6 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Unit 6 includes portions of the Santa Clara River, Castaic Creek, and adjacent uplands. The unit encompasses approximately 2,538 ac (1,027 ha), of which 87 percent is private land and 13 percent is within the Angeles National Forest. This unit is divided into three subunits. Subunit 6a, predominantly within the administrative boundary of the Angeles National Forest, includes approximately 4 mi (6 km) of Castaic Creek upstream from the Elderberry Forebay of Castaic Lake, and approximately 0.7 mi (1.1 km) of Fish Creek upstream from its confluence with Castaic Creek. Subunit 6b includes approximately 6 mi (10 km) of the Santa Clara River from its confluence with the South Fork of the Santa Clara River down to its confluence with Castaic Creek, and San Francisquito Creek from the Newhall Ranch Road bridge downstream to its confluence with the Santa Clara River. Subunit 6c includes approximately 3 mi (5 km) of the upper Santa Clara River from approximately 0.5 mi (0.8 km) above its confluence with Agua Dulce Creek downstream through Soledad Canyon to its confluence with Bee Canyon Creek. Arroyo toads were known to occupy upper Castaic Creek at the time of listing (subunit 6a), but were not known to occur along the Santa Clara River (subunits 6b, 6c) at the time the species was listed. They have been observed within all three subunits during recent surveys.

A healthy population of arroyo toads can be found on Castaic Creek above the reservoir (subunit 6a). It may be the largest arroyo toad population in the Angeles National Forest (Bill Brown, Forest Service, pers. comm. 2003). A small population of arroyo toads can also be found in the Santa Clara River near the confluence with San Francisquito Creek downstream to the confluence with Castaic Creek (subunit 6b). This portion of the Santa Clara River was originally excluded from designation as critical habitat for the arroyo toad in 2000, in part because we believed that a breeding population of arroyo toads could not be sustained in this area. Recent observations of arroyo toads, including eggs thought to belong

to arroyo toads, refutes this (Ruben Ramirez, Cadre Environmental, pers. comm. 2003). Because this area apparently supports a breeding population of arroyo toads with the potential to greatly expand, we believe it is essential habitat for the arroyo toad.

The upper portion of the Santa Clara River running through Soledad Canyon (subunit 6c) supports a small breeding population of arroyo toads (N. Sandburg, in litt. 2001; Rick Farris, Service, pers. comm. 2001; Frank Hovore, Hovore and Associates, in litt. 2001) and has the potential to greatly increase in size with appropriate protection.

Subunits 6a, 6b, and 6c contain all the primary constituent elements, including breeding pools in low-gradient stream segments, sandy substrates, seasonal flood flows, and riparian and upland habitats for foraging and dispersal. The majority of the lands within unit 6 are privately-owned and special management considerations are required in this unit to address urban development, agriculture, recreation, and mining threats. Exotic species, such as African clawed frogs (*Xenopus laevis*), are a concern here as well.

Castaic Creek from its confluence with the Santa Clara River upstream to Castaic Lagoon was included within subunit 6b in the February 7, 2001, designation of critical habitat. A portion of lower Castaic Creek containing suitable arroyo toad habitat was also included in our April 28, 2004, proposed rule. However, flows in this reach are affected by the operations of Castaic Dam (e.g., water removed from the system for a municipal drinking water supply) and arroyo toads have never been observed within lower Castaic Creek; thus, we no longer consider it essential to the conservation of the species in its current state. Similarly, we have concluded that San Francisquito Creek above the Newhall Ranch Road bridge lacks surface water for a sufficient duration during spring of most years to allow for arroyo toad tadpole development. Thus, this portion of San Francisquito Creek, which was included in subunit 6b in the proposed rule, does not provide breeding habitat for arroyo toads, and we no longer consider this portion of San Francisquito Creek to be essential for the conservation of the species.

Unit 7: Upper Los Angeles River Basin, Los Angeles County

All essential lands in Unit 7 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and

4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential areas in Unit 7 include portions of Big Tujunga, Mill, and Alder Creeks, and adjacent uplands in the upper Los Angeles River Basin. The unit encompass approximately 1,772 ac (717 ha), of which 95 percent is within the Angeles National Forest and 5 percent is on private lands. This unit was divided into two subunits in the proposed rule (7a and 7b). However, all lands in subunit 7a were removed because these areas were not known to be occupied by arroyo toads and were therefore not essential. Subunit 7b encompasses: (1) Approximately 8 mi (13 km) of upper Big Tujunga Creek from immediately above Big Tujunga Reservoir upstream to approximately 1.0 mi (1.6 km) above the confluence with Alder Creek, (2) almost 3.7 mi (6 km) of Mill Creek from the Monte Cristo Creek confluence downstream to Big Tujunga Creek, and (3) 1.7 mi (2.7 km) of Alder Creek from 0.2 mi (0.3 km) downstream of the Mule Fork confluence downstream to Big Tujunga Creek.

Subunit 7b contains an important high elevation arroyo toad population in the Big Tujunga Canyon watershed in the Upper Los Angeles River basin within the Angeles National Forest. All drainages in subunit 7b have been reported to be occupied by arroyo toads within the last 15 years (Forest Service, in litt. 1996; Forest Service 2000; California Natural Diversity Data Base (CNDDB) 2003). This population occurs in a high-elevation environment that is atypical for arroyo toads and functions as the only significant known population remaining in the coastal foothills of the San Gabriel Mountains. Subunit 7b is essential for arroyo toad conservation because it contains several primary constituent elements, including breeding pools in low-gradient stream segments, sandy substrates for burrowing and aestivation, seasonal flood flows, and riparian and upland habitats for foraging and dispersal. Threats that require special management considerations for this unit include exotic predators, such as crayfish and bullfrogs, and exotic plants, such as *Arundo donax*.

Unit 8: Lower Santa Ana River Basin/ Santiago Creek, Orange County

All essential lands in Unit 8 are excluded from critical habitat designation under section 4(b)(2) of the Act because they are within the approved Orange County Central Coastal Subregion Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) area (see Application of Section 3(5)(A) and

4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion). Essential areas in Unit 8 include portions of Santiago and Baker Creeks and adjacent uplands in the lower Santa Ana River Basin. The unit encompasses approximately 840 ac (340 ha) just above Irvine Lake, of which 100 percent is on private land. Unit 8 encompasses approximately 1.3 mi (2.1 km) stretch of lower Baker Canyon from the Cleveland National Forest boundary downstream to the confluence with Santiago Creek as well as approximately 2.0 mi (3.2 km) of Santiago Creek from the Baker Canyon confluence downstream to Irvine Lake.

Unit 8 contains an important arroyo toad population in Santiago and Baker Creeks in central Orange County. Toads were observed in lower Baker Canyon and at the confluence of Silverado Creek and Santiago Creek during the 1970s and 1980s (Robert Fisher, USGS, in litt. 1985; CNDDDB 2003). This population may represent one of the last remnants of a greater historic population that existed in the Santa Ana River basin that was mostly extirpated due to urbanization of the greater Los Angeles metropolitan area. It is also possible that this population belongs to a larger metapopulation that extends across the lower coastal mountain slopes of the Santa Ana Mountains from Santiago Creek to San Mateo Creek (including Units 10 and 11). This unit is essential because it contains primary constituent elements, such as low-gradient sandy streams and adjacent upland terraces for foraging, burrowing, and aestivation. Threats that require special management considerations include impacts from nearby residential activities, and degrading habitat conditions due to past commercial sand and gravel removal operations.

Unit 9: San Jacinto River Basin, Riverside County

Unit 9 includes portions of the San Jacinto River and Bautista Creek and adjacent uplands in the San Jacinto River Basin. The unit encompasses approximately 700 ac (283 ha), of which 100 percent is within the San Bernardino National Forest. We are designating a 3.1 mi (5.1 km) discontinuous stretch of Bautista Creek and an approximately 0.5 mi (0.8 km) discontinuous reach of the San Jacinto River east of the Forest Service boundary as critical habitat. Approximately 2,418 ac (978 ha) of essential habitat on private and State lands along the San Jacinto River from the Sand Canyon confluence downstream to the Soboba Indian Reservation border and along Bautista

Creek from the San Bernardino National Forest boundary downstream to near the middle of section 27 (T5S, R1E), where the stream enters a debris basin, is excluded because it is within the Western Riverside MSHCP planning area (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

Unit 9 contains an important arroyo toad population in the San Jacinto River and Bautista Creek within the San Bernardino National Forest. Arroyo toads were first discovered in lower Bautista Creek in 1975 (G. Stewart, unpubl. data) in an area that has since suffered severe habitat loss due to substantial urban development. Arroyo toads have also recently been reported in the San Jacinto River (B. Ortega in litt. 2000) and in Bautista Creek within the San Bernardino National Forest (USGS 2000, 2001). This unit contains the most northeastern arroyo toad population within the coastal region for the species and is effectively isolated from other known toad populations to the south in the Santa Margarita Watershed, to the west in the San Juan Watershed, and from residual populations to the north in the Santa Ana Watershed due to geographic features. It is likely that this isolation has occurred over long geologic time, and therefore, toads in the San Jacinto Watershed may have evolved unique genetic, phenotypic, and/or behavioral characteristics that are essential for the conservation of the species. Furthermore, unit 9 is essential for arroyo toad conservation because it contains several primary constituent elements, including low gradient sandy streambeds with slow moving water suitable for arroyo toad breeding and adjacent upland terrace for foraging and burrowing that promote the ability of this area to support a viable population. Threats that require special management considerations for this unit include destruction of habitat and mortality of individual toads due to recreation, vehicular traffic, and road improvements to the nearby Bautista Road (USGS 2001).

Unit 10: San Juan Creek Basin, Orange County

All essential lands in Unit 10 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential areas in Unit 10 include portions of San Juan Creek, Bell Canyon, Trabuco Creek, and adjacent uplands in the San Juan

Creek Basin. The unit encompasses approximately 5,256 ac (2,127 ha), of which 52 percent is private land, 41 percent is Orange County Park Land (Caspers Wilderness Park and O'Neill Regional Park), and 8 percent is within the Cleveland National Forest. This unit is divided into two subunits. Subunit 10a encompass approximately 18.5 mi (30 km) of San Juan Creek from the Lower San Juan picnic ground downstream to Interstate 5 and about 2.5 mi (4 km) of Bell Canyon from just below Crow Canyon downstream to the confluence with San Juan Creek. Subunit 10b covers approximately 5 mi (8 km) of Trabuco Creek from the Cleveland National Forest boundary to approximately 0.9 mi (1.4 km) downstream of the State Route 241 (Foothill Transportation Corridor) bridge.

Unit 10 contains a vital arroyo toad population in the San Juan Creek Basin that was known to be occupied at the time the species was listed. Arroyo toads were originally discovered in San Juan Creek in 1974 (F. Roberts, Jr., in litt.), but the extent of their occupancy in this Basin was not known at the time the species was listed under the Act. Recent surveys have collectively demonstrated that subunit 10a supports a significant toad population (P. Bloom, environmental consultant, in litt. 1998; USGS, in litt. 1999a; CNDDDB 2005). Subunit 10a is essential for arroyo toad conservation because it contains several primary constituent elements in San Juan Creek and Bell Canyon, including low-gradient stream segments with sandy or fine gravel substrates that support shallow pools and alluvial scrub habitat that provides suitable foraging, burrowing, and aestivating habitat. Subunit 10b is also essential for arroyo toad conservation because it is occupied and contains several primary constituent elements in Trabuco Creek (D. Holland, in litt. 2000), such as low-gradient streams with shallow pools and adjacent upland habitat for foraging and burrowing that are favorable for population persistence. Arroyo toad populations in this unit may function as an important linkage between toads in Santiago Creek (formerly proposed as Unit 8) to the north and the San Mateo Creek Basin to the south (Unit 11). This population is threatened by exotic predators (bullfrogs), increased water diversions, and residual effects of recent gravel mining operations (Bloom 1998) and requires special management to reduce the impacts associated with these threats.

Unit 11: San Mateo Creek and San Onofre Creek Basins, San Diego and Orange Counties

All essential lands in Unit 11 are either excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section) or exempted from critical habitat designation due to Marine Corps Base, Camp Pendleton's (Camp Pendleton) Integrated Natural Resource Management Plan (INRMP) (see the Exemptions Under Section 4(a)(3) section for a detailed discussion). Essential areas in Unit 11 include portions of San Mateo, Cristianitos, Talega, Gabino, La Paz, San Onofre, and Jardine Creeks, and adjacent uplands in the San Mateo and San Onofre Creek Basins. This unit encompasses approximately 8,178 ac (3,310 ha), of which 83 percent is within portions of Marine Corps Base, Camp Pendleton (Camp Pendleton), including State lease lands, and 17 percent is on private land. This unit was divided into three subunits in the proposed rule (11a, 11b, and 11c). Subunit 11a includes approximately 3.1 mi (5 km) of San Mateo Creek from the Cristianitos Creek confluence downstream to just below Interstate 5 highway and includes portions of Cristianitos Creek from just above Gabino Creek downstream to the confluence with San Mateo Creek. This subunit also includes approximately 3.1 mi (5 km) of Gabino Creek upstream from its confluence with Cristianitos Creek, including about 0.6 mi (1 km) of La Paz Creek, as well as approximately 2.7 mi (4.3 km) of Talega Creek upstream from its confluence with Cristianitos Creek and beyond the boundaries of Camp Pendleton. Portions of essential habitat in both subunit 11a along San Mateo, San Onofre, and Talega Creeks and San Onofre Creek and subunit 11c within Camp Pendleton were originally excluded from the proposed rule because they were within mission-essential training areas (69 FR 23253). These areas, as well proposed State leased lands (subunit 11a) and cantonment areas (subunit 11c), are now exempted from critical habitat based on Camp Pendleton's approved INRMP that was signed in 2001. Subunit 11b encompasses approximately 6 mi (9.7 km) of San Mateo Creek from the Cleveland National Forest boundary downstream to the confluence with Cristianitos Creek. Subunit 11c encompasses approximately 8 mi (12.9 km) of San Onofre Creek upstream from Interstate 5 highway as well as approximately 2 mi (3.2 km) of Jardine

Canyon upstream from the confluence with San Onofre Creek.

Unit 11 contains an indispensable arroyo toad population in the San Mateo Creek and San Onofre Creek Basins. Unit 11 contains several primary constituent elements of low-gradient stream segments with sandy or fine gravel substrates, shallow pools for breeding and rearing of tadpoles and juveniles, and riparian and adjacent uplands habitats for foraging and dispersal to other populations. With so many favorable habitat conditions, this area is able to support a considerable arroyo toad population (Holland and Goodman 1998; CNDDDB 2005) and is essential for the species. An unusual and important aspect of this unit is its close proximity to the coast because nearly all of the historic near-coastal populations have been extirpated due to extensive urbanization and river channelization along the coastal regions of southern California. Distinctive climatic conditions near the coast may provide different selective pressures on toads in this area, and favor specific genetic characteristics that help maintain the genetic diversity of the species. Lands within this unit are threatened by cumulative impacts from human activities, including direct mortality from vehicle collisions and vehicular crossings of stream beds, recreational activities, camping, fire, exotic predators, and invasive plants (Holland and Goodman 1998) and require special management to reduce impacts associated with these threats.

Unit 12: Lower Santa Margarita River Basin, San Diego County

All essential lands in Unit 12 are either excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section) or exempted from critical habitat designation due to Camp Pendleton's and Naval Weapons Station Seal Beach Detachment Fallbrook's (Fallbrook Naval Weapons Station) INRMP (see the Exemptions Under Section 4(a)(3) section for a detailed discussion). Essential areas in Unit 12 encompass approximately 6,388 ac (2,585 ha), of which 86 percent is on Camp Pendleton, 5 percent is on Fallbrook Naval Weapons Station, and 8 percent is on private land. This unit is divided into two subunits (12a and 12b). In the proposed critical habitat rule, portions of subunits 12a and 12b along the Santa Margarita River, De Luz Creek, and Roblar Creek in subunits 12a and 12b within Camp Pendleton were excluded because they were within

mission-essential training areas (69 FR 23253). These areas are now exempted from critical habitat based on Camp Pendleton's approved INRMP that was signed in 2001. Portions of essential habitat in subunit 12b along the Santa Margarita River within the Fallbrook Naval Weapons Station are also exempted from the final critical habitat designation due to their INRMP and Fire Management Plan. Subunit 12a includes approximately 5 mi (8.0 km) of De Luz Creek from the town of De Luz to the confluence with the Santa Margarita River as well as approximately 2 mi (3.2 km) of Roblar Creek. Subunit 12b includes portions of the Santa Margarita River from approximately 1 mi (1.6 km) northeast of the Camp Pendleton boundary downstream Interstate 5 highway.

Unit 12 contains a significant arroyo toad population in the lower Santa Margarita River Basin. Recent surveys of the Santa Margarita River and De Luz Creek immediately downstream of this unit on Camp Pendleton have documented what is probably the largest known population of arroyo toads (Holland 1995; Holland and Goodman 1998; Varanus Biological Services, Inc. 1999; Holland and Sisk 2001; CNDDDB 2005). This unit contains several primary constituent elements including rivers with suitable hydrologic regimes, low-gradient stream segments with sandy substrates supporting shallow pools and gravel bars for breeding and rearing tadpoles and juveniles, and riparian and adjacent upland habitat to provide foraging and living areas for subadult and adult toads. This unit is important for the conservation of the species because of its size and potential connectivity to populations in the upper Santa Margarita River Basin (Unit 13). Threats to this habitat that require special management considerations include cumulative impacts to the species' habitat from human activities, including direct mortality from vehicle collisions and vehicular crossings of stream beds, fire, exotic predators, and invasive plants (Holland and Goodman 1998).

Unit 13: Upper Santa Margarita River Basin, Riverside County

All essential lands in Unit 13 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential areas in Unit 13 are located upstream from Vail Lake and include portions of Arroyo Seco and Temecula Creeks, and adjacent uplands in the upper Santa

Margarita Basin. The unit encompasses approximately 2,115 ac (856 ha), of which 81 percent is private land and 19 percent is within the Cleveland National Forest. This unit is divided into two subunits (13a and 13b). The upper half of subunit 13b in Temecula Creek, upper portion of subunit 13a, and all of Wilson Creek was removed because it was not known to be occupied, and therefore no longer considered to be essential. Subunit 13a includes 3.7 mi (5.9 km) of Arroyo Seco Creek from just north of the San Diego/ Riverside Counties boundary downstream to Vail Lake. Subunit 13b includes approximately 3 mi (4.8 km) of Temecula Creek from just east of the town of Radec downstream to Vail Lake.

Unit 13 contains an important arroyo toad population in the Upper Santa Margarita Basin upstream from Vail Lake. Unit 13 is important for the conservation of the species because it provides a potential link to populations in the lower Santa Margarita River Basin and other nearby drainages containing suitable habitat, such as upper portions of Temecula Creek and Wilson Creek that are not known to be occupied. Toads were known to occupy the Upper Santa Margarita Basin at the time of listing in 1994 and have also been documented in this area more recently (AMEC Earth and Environmental, Inc. 2001; CNDDDB 2005). Unit 13 is essential for the conservation of the arroyo toad because it contains several primary constituent elements, such as low gradient sandy stream channels with slow moving water suitable for breeding and adjacent upland terraces for foraging, burrowing, and aestivating. Exotic predators, campground activities, streambed alterations, and agricultural run-off threaten arroyo toads in this unit and require special management.

Unit 14: Lower and Middle San Luis Rey River Basin, San Diego County

All essential lands in Unit 14 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential lands in Unit 14 include portions of the San Luis Rey River and adjacent upland areas below the La Jolla Indian Reservation, as well as sections of Pala and Keys Creeks in the lower and middle San Luis Rey River Basin. The unit encompasses approximately 8,669 ac (3,508 ha), of which 84 percent is private land, 10 percent is on the Pala Indian Reservation, and 5 percent is on the Rincon Indian Reservation. Approximately 30 mi (48 km) of the San

Luis Rey River from the western edge of the La Jolla Indian Reservation downstream to the confluence with Guajome Creek near the City of Oceanside are designated as critical habitat. It also includes approximately 3.4 mi (5.5 km) of Pala Creek and 1.7 mi (2.7 km) of Keys Creek upstream from their confluence with the San Luis Rey River.

Unit 14 contains an indispensable arroyo toad population in the San Luis Rey River Basin. This unit was known to be occupied at the time of listing in 1994. Several more recent surveys have documented the presence of arroyo toads throughout this unit (Dudek & Associates 1995; California Department of Transportation 1999; PCR Services Corporation 1999; Tierra Environmental Services 1999; Varanus Biological Services, Inc. 1999; Cadre Environmental 2004). This long, low-elevation (all below 1,000 ft (305 m) in elevation) unit is situated in a broad, flat valley with a low-gradient river that supports all the primary constituent elements, such as shallow pools for breeding and sandy substrates in adjacent upland terraces for foraging, burrowing, and aestivating. This unit is necessary for the conservation of the arroyo toad because it supports one of the largest contiguous river reaches that is occupied by the species and has the ability to support a viable population. Special management considerations that are required in this unit include addressing issues regarding dams and water diversions in the upper end of the unit and minimizing impacts from intensive urbanization, agriculture, exotic predators, and plants.

Unit 15: Upper San Luis Rey River Basin, San Diego County

All essential lands in Unit 15 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential areas in Unit 15 include the upper San Luis Rey River above Lake Henshaw, two of its headwater tributaries, and adjacent uplands in the upper San Luis Rey River Basin. The unit encompasses approximately 6,183 ac (2,502 ha), of which 73 percent is private land and 27 percent is within the Cleveland National Forest. This unit consists of two subunits (subunits 15a and 15b). Subunit 15a covers almost 8.7 mi (14 km) of the upper San Luis Rey River from the Indian Flats area downstream to the upper end of Lake Henshaw and includes about 7.8 mi (12.5 km) of Agua Caliente Creek from the western edge of

section 13 (T10S, R3E) to the confluence with the San Luis Rey. Subunit 15b includes approximately 1.6 mi (2.5 km) of the West Fork of the San Luis Rey River, where it runs through Barker Valley.

Unit 15 contains an important high-elevation arroyo toad population with large areas of suitable habitat. Arroyo toads were known to occupy this unit at the time of listing in 1994. More recent surveys have also documented arroyo toads in both subunits 15a and 15b (USGS 2000; CNDDDB 2005). Unit 15 is important for the conservation of the species because it contains a unique assemblage of several small, disjunct, high-elevation arroyo toad populations and one significant population on Agua Caliente Creek (E. Gergus, San Diego State University, in litt. 1992; CNDDDB 2005) in an area where in-stream and/or overland dispersal between populations is likely still possible. Maintaining adequate genetic connectivity within this population increases the probability of these populations' long term persistence. This unit is essential because it contains the primary constituent elements of low-gradient stream segments with sandy substrates supporting shallow pools, and riparian and adjacent upland habitats that provide areas for foraging and burrowing. The primary threats against the arroyo toad in this unit that would be alleviated through special management include groundwater pumping on private lands, exotic predators, and grazing.

Unit 16: Santa Ysabel Creek Basin, San Diego County

All essential lands in Unit 16 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential areas in Unit 16 include portions of Santa Ysabel, Santa Maria, Guejito, and Temescal Creeks (Pamo Valley) and adjacent uplands in the San Dieguito River/Santa Ysabel Creek Basin. The unit encompasses approximately 10,259 ac (4,152 ha), of which 93 percent is private land, 3 percent is within the Cleveland National Forest, 1 percent is on County Park land, 1 percent on California Department of Fish and Game (CDFG) land, and the remaining 1 percent is on the Mesa Grande Indian Reservation. This unit consists of four subunits (16a, 16b, 16c, and 16d). Subunit 16a includes approximately 9 mi (14.5 km) of Santa Ysabel Creek from the confluence with Temescal Creek downstream to the confluence with

Santa Maria Creek, approximately 4.3 mi (7 km) of Temescal Creek from the northern edge of Pamo Valley to the confluence with Santa Ysabel Creek and approximately 2.5 mi (4.0 km) of Boden Canyon upstream from the Santa Ysabel Creek confluence. Subunit 16b includes approximately 10 mi (16.1 km) of Guejito Creek from the 2,000 ft (610 m) elevation contour downstream to the confluence with Santa Ysabel Creek. Subunit 16c covers approximately 7.0 mi (11.2 km) of Santa Maria Creek from the west side of Ramona south of the Ramona Airport to the confluence with Santa Ysabel Creek. Subunit 16d includes approximately 3 mi (4.8 km) of Santa Ysabel Creek upstream from the confluence with Witch Creek.

Unit 16 contains a vital arroyo toad population for the conservation of the species in the Santa Ysabel River Basin. This unit was known to be occupied at the time of listing in 1994, and more recent surveys have documented toads to occupying all of the drainages in this unit, including a significant population in Temescal and Santa Ysabel Creeks within Pamo Valley (Varanus Biological Services, Inc. in litt. 1999; Tierra Environmental Services, in litt. 2001; USGS, in litt. 2002; CNDDDB 2005). This unit has a high conservation value because it is interconnected with other occupied essential areas in the San Diego MSCP that are excluded. Collectively, these areas contain large amounts of suitable habitat that promote the ability of a large population to persist and contribute to the species recovery. Unit 16 is essential because it contains several primary constituent elements, including low-gradient sandy stream segments with shallow pools for breeding and rearing of tadpoles, upland sandy terraces that provide foraging and burrowing habitat, and stream channels and upland habitats that allow for migration to foraging areas. Grazing, exotic predators, and urbanization (Tierra Environmental Services, in litt. 2001; CNDDDB 2005) are the primary threats to this arroyo toad essential habitat that require special management considerations in this unit.

Unit 17: San Diego River Basin/San Vicente Creek, San Diego County

All essential lands in Unit 17 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential lands in Unit 17 include portions of the San Diego River and San Vicente Creek and adjacent uplands in the San Diego River Basin. The unit encompasses

approximately 1,955 ac (791 ha), of which 83 percent is private land, 10 percent is within the Cleveland National Forest, and 7 percent is on the Capitan Grande Indian Reservation. The unit was divided into four subunits in the proposed rule (subunits 17a, 17b, 17c, 17d), of which two (subunits 17b and 17c) are no longer essential because they are not known to be occupied. Subunit 17a includes approximately 5 mi (8 km) of the San Diego River from Ritchie Creek downstream through 0.5 mi (0.9 km) of the Capitan Grande Indian Reservation to the upper edge of El Capitan Reservoir and approximately 0.6 mi (1 km) of lower Cedar Creek. Subunit 17d includes 4 mi (6.4 km) of San Vicente Creek upstream from San Vicente Reservoir.

Unit 17 contains a necessary arroyo toad population in the upper San Diego River Basin. Arroyo toads were known to occupy this unit at the time of listing in 1994 (CNDDDB 2005). Unit 17 is important for the arroyo toad conservation because it contains suitable habitat for population expansion, thus increasing the probability of the long-term persistence of these populations. This unit is essential because it contains the primary constituent elements of low-gradient stream segments with sandy substrates supporting shallow pools for breeding, riparian and adjacent upland habitats that provide foraging, living, and migration areas for subadult and adult toads. Special management considerations or protections are required to minimize threats from exotic predators.

Unit 18: Sweetwater River Basin, San Diego County

All essential lands in Unit 18 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential areas in Unit 18 include portions of the Sweetwater River and Peterson Canyon and adjacent uplands in the Sweetwater River Basin. The unit encompasses approximately 5,347 ac (2,164 ha), of which 46 percent is private land, 32 percent is on California State Park lands, 17 percent is within the Cleveland National Forest, 3 percent is on the San Diego National Wildlife Refuge, 2 percent is on CDFG land, and less than 1 percent on the Sycuan Indian Reservation. The unit was divided into four subunits in the proposed rule (18a, 18b, 18c, and 18d). Subunit 18d was no longer essential because this area was not known to be

occupied. Subunit 18a covers approximately 20 mi (32 km) of the Sweetwater River from approximately one mile upstream of the Stonewall Creek confluence in the Green Valley in Cuyamaca Rancho State Park downstream to the confluence with Viejas Creek. Subunit 18b includes approximately 0.5 mi (0.8 km) of the Sweetwater River between Viejas Creek and Loveland Reservoir and 1.5 mi (2.4 km) of Peterson Canyon from just east of the Taylor Creek confluence downstream to the top of Loveland Reservoir. Subunit 18c encompasses approximately 16 mi (26 km) of the Sweetwater River from immediately below Loveland Dam downstream to the upper edge of Sweetwater Reservoir.

Unit 18 contains a significant arroyo toad population in the Sweetwater River Basin that was known to be occupied at the time the species was listed in 1994. This unit is necessary for conservation of the arroyo toad because it supports several significant populations over large stretches of rivers and streams (E. Gergus, in litt. 1992; Ervin and Griffin, in litt. 1997; Varanus Biological Services, Inc. 1999; CNDDDB 2005). Unit 18 is essential because it contains the primary constituent elements of open sandy river bottoms with shallow pools that support breeding populations and adjacent upland foraging and burrowing areas. Maintaining suitable habitat conditions and connectivity are essential to provide for the long-term persistence of these populations. Lands within these subunits require special management considerations to address threats from adverse (*i.e.*, timing, amount) water releases from reservoirs, cattle grazing, gravel mining operations, off highway vehicular traffic, and exotic predators.

Unit 19: Cottonwood Creek Basin, San Diego County

All essential lands in Unit 19 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential areas in Unit 19 include portions of Cottonwood, Potrero, Pine Valley, Morena, La Posta, and Kitchen Creeks and adjacent uplands in the Cottonwood Creek Basin. This large unit encompasses approximately 11,135 ac (4,579 ha), of which 55 percent is private land, 36 percent is within the Cleveland National Forest, 8 percent is on land owned by San Diego County, and less than 1 percent is on BLM land. This unit is divided into four subunits (19a, 19b, 19c, 19d). Subunit 19a covers

7 mi (11.2 km) of Cottonwood Creek from its confluence with Kitchen Creek downstream to Morena Reservoir and includes approximately 3.7 mi (6 km) of La Posta Creek, 2.8 mi (4.5 km) of Morena Creek, and 5 mi (8 km) of Kitchen Creek upstream from the Cottonwood Creek confluence. Subunit 19b includes 9.3 mi (15 km) of Potrero Creek from approximately the 2,466-ft (752-m) elevation benchmark downstream to the confluence with Cottonwood Creek, approximately 10 mi (16.1 km) of Cottonwood Creek from Barrett Lake downstream to the United States International Border. Portions of 19b between Morena Reservoir and Barrett Lake and 19c (Scove Canyon) were no longer considered essential because these areas were not known to be occupied. Subunit 19c covers about 7.5 mi (12 km) of Pine Valley Creek from the north edge of section 12 (T15S, R4E) downstream to approximately 0.6 mi (1 km) south of Interstate 8 and includes approximately 0.6 mi (1 km) of Noble Creek. Subunit 19d encompasses 8 mi (13 km) of Pine Valley Creek from the Nelson Canyon confluence downstream to Barrett Reservoir.

Unit 19 contains a fundamentally important arroyo toad population in the Cottonwood Creek Basin. This unit was known to be occupied at the time the species was listed and also contains several recent documentations of large distinct arroyo toad occurrences (E. Gergus, in litt. 1992; Varanus Biological Services, Inc. 1999; USGS, in litt. 1999b; CNDDDB 2005). This unit is important for the conservation of the species because it contains several areas where in-stream and/or overland dispersal between populations is likely possible and where there is room for population expansion. Lands within this unit also provide an important linkage to populations occurring on excluded essential habitat within the San Diego MSCP area. This unit is essential because it contains the primary constituent elements of wide, open sandy low-gradient stream segments supporting shallow pools for breeding and sparsely vegetated upland habitat for foraging and burrowing. Urbanization, grazing, Border Patrol activities, introduced plants, and exotic predators are the primary threats to this arroyo toad essential habitat that require special management considerations.

Unit 20: Upper Santa Ana River Basin/ Cajon Wash, San Bernardino County

Essential areas in Unit 20 include approximately 4 mi (6.4 km) of Cajon Wash and adjacent uplands, from just south of Cajon campground downstream to the San Bernardino National Forest boundary. The unit encompasses

approximately 1,119 ac (4453 ha), of which 56 percent is private land and 44 percent is within the San Bernardino National Forest.

This population may represent some of the last vestiges of a much greater population that historically existed along the upper Santa Ana River Basin, but was almost entirely extirpated due to urbanization of the greater Los Angeles area. Arroyo toads were not known to occur within this area at the time the species was listed but were located near the junction between Lone Pine Canyon and Cajon Wash in 2000 (USGS 2000). The nearest known arroyo toad population occurs approximately 3.7 mi (6 km) (straight line distance) to the east in the West Fork Mojave River (Unit 22). However, the steep terrain between these populations makes it likely that these populations are geographically isolated from one another. Protecting this population is essential for the conservation of the species because it helps preserve an important remnant population that may possess unique genetic, phenotypic, and/or behavioral variation of the species. This unit is essential because it contains the primary constituent elements of low-gradient sandy stream segments supporting shallow breeding pools, adjacent upland terraces for foraging and burrowing, and a flooding regime that sufficiently corresponds to natural conditions and periodically scours riparian vegetation and reworks stream channels. Recreational usage is the primary threat to this habitat and requires special management considerations.

Unit 21: Little Rock Creek Basin, Los Angeles County

Essential areas in Unit 21 include approximately 4.5 mi (7.2 km) of Little Rock Creek and adjacent uplands, from just north of the Little Sycamore campground downstream to the upper end of Little Rock Reservoir (in the vicinity of Rocky Point Picnic Ground), and approximately 1.1 mi (1.8 km) of Santiago Creek and adjacent uplands upstream from the confluence with Little Rock Creek in the Little Rock Creek Basin. The unit encompasses approximately 734 ac (297 ha), all of which is within the Angeles National Forest.

Unit 21 contains an important desert arroyo toad population in the Little Rock Creek Basin. Arroyo toads were not known to occur within this area at the time the species was listed. This unit is important for the conservation of the species because recent surveys have documented toads in this basin (Forest Service, in litt. 1998; Ramirez 2002a),

which is geographically isolated from other known toad populations. Therefore, it is possible that arroyo toads in this desert area possess unique genetic and phenotypic variation. Protecting peripheral populations such as this is necessary for the species conservation because it maintains a broad range of genetic diversity for the species. Losses of diversity can result in reduced evolutionary flexibility and declines in fitness. This unit is essential because it contains the primary constituent elements of low-gradient sandy stream segments that support shallow breeding pools, adjacent upland areas for foraging, and a hydrologic regime that sufficiently corresponds to natural conditions and scours the riparian vegetation, thus providing open areas for movement. Threats from recreational activities require special management considerations to preserve the area's favorable habitat conditions for the persistence of this population.

Unit 22: Upper Mojave River Basin, San Bernardino County

All essential lands in Unit 22 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section). Essential areas in Unit 22 include portions of the Mojave River, the West Fork of the Mojave River, Horsethief and Little Horsethief Creeks, Grass Valley Creek, Deep Creek, and adjacent uplands in the upper Mojave River Basin. The unit encompasses approximately 6,328 ac (2,561 ha), of which 35 percent is private land, 34 percent is managed by the U.S. Army Corps of Engineers in association with a flood control reservoir, 28 percent is within the San Bernardino National Forest, 2 percent is California State Parks land, and 1 percent is BLM land. The unit was divided into three subunits (22a, 22b, 22c) in the proposed rule. Subunit 22b was removed as essential because it is not known whether this area is occupied. Subunit 22a includes: (1) Approximately 9.3 mi (18 km) of Deep Creek from near Holcomb Creek downstream to the confluence with the West Fork; (2) approximately 4 mi (6 km) of Little Horsethief Creek upstream from its confluence with Horsethief Creek; (3) approximately 4 mi (6 km) of Horsethief Creek from approximately 1 mi (1.6 km) above the Little Horsethief Creek confluence downstream to the West Fork confluence; (4) approximately 6 mi (10 km) of the West Fork of the Mojave River from Highway 173 downstream to Mojave River Forks

Dam; (5) approximately 1 mi (1.6 km) of the Mojave River below Mojave River Forks Dam; (6) approximately 1.4 mi (2.2 km) of Grass Valley Creek upstream from the confluence with the West Fork; and (7) approximately 2.8 mi (4.5 km) of Kinley Creek upstream from the Deep Creek confluence. Subunit 22c includes approximately 1 mi (1.6 km) of the upper West Fork of the Mojave River, above Silverwood Lake, from near the 3,613 ft (1,462 m) elevation benchmark downstream to the upper end of the lake.

These subunits contain the primary constituent elements of low-gradient sandy stream segments that support shallow breeding pools, adjacent upland areas for foraging, and a hydrologic regime that sufficiently corresponds to natural conditions and scours the riparian vegetation, thus providing open areas for movements by toads. Subunit 22c was not known to be occupied at the time the species was listed, but toads have been found during recent surveys (Tierra Madre Consultants, Inc. in litt. 1995; Ramirez 2002b; CNDDDB 2005; Forest Service, in litt. 2003; Ramirez 2003). Summit Valley, which encompasses the lower portions of Horsethief Creek and the West Fork of the Mojave River, is a broad, flat, alluvial valley that supports a substantial arroyo toad population (Ramirez 2003). Providing adequate and proper streamflows and protections for the upland alluvial habitats would increase the probability for the long-term persistence of this large toad population. If adequate streamflows and upland alluvial habitats can be maintained, this desert unit would have the most favorable conditions of any of the desert units for long-term persistence of the large toad population. Protection of this area is essential to maintain the range of genetic and phenotypic diversity of the species. The presence of exotic species, grazing, residential development, flood control activities, and recreational activity (particularly off-road vehicle use) may create the need for special management in this unit.

Unit 23: Whitewater River Basin, Riverside County

Essential areas in Unit 23 include approximately 7.2 mi (11.7 km) of the Whitewater River and adjacent uplands, from near Red Dome downstream to the Colorado River Aqueduct. The unit encompasses approximately 333 ac (135 ha), of which 100 percent is BLM land. Approximately 625 ac (252 ha) of essential habitat within the draft Coachella Valley MSHCP planning area has been excluded from the final

designation (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion).

Unit 23 contains another important desert arroyo toad population. This unit was known to be occupied at the time of listing. Arroyo toads were observed and photographed in the drainage in 1992 (Patten and Myers 1992) but were not detected in surveys conducted during the 2000 breeding season (Jones and Stokes, in litt. 2000). However, 2000 was generally a bad year for arroyo toad breeding activity, particularly in the southern half of the species' range, because of below average precipitation and subsequent low streamflows. In 2003, a tadpole was identified with almost complete certainty to be an arroyo toad near where the Colorado River Aqueduct crosses the river (P. Bloom, in litt. 2003). Given the relatively recent documentation of arroyo toads in this drainage, and the continued presence of suitable habitat in the area, we believe it is likely that this unit is still occupied. Unit 23 is essential because it supports several primary constituent elements such as open sandy areas near small areas of slow moving water and adjacent sparse riparian habitat for foraging and burrowing. These essential PCEs support an isolated desert population on the easternmost periphery of the species' range in the Colorado Desert that may possess unique phenotypic and genetic variation that are unique to desert populations and possibly distinct from desert populations in Units 21 and 22 in the Mojave Desert. Maintaining greater genetic diversity creates greater potential for adaptation to changing environmental conditions. Threats to this population that require special management considerations include unsuitable water flow for breeding and off highway vehicular traffic.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.2, 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." We are currently

reviewing the regulatory definition of adverse modification in relation to the conservation of the species and are relying on the statutory provisions of the Act in evaluating the effects of Federal actions on designated critical habitat, pending further regulatory guidance.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is proposed or designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402.

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. 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 proposed critical habitat.

Activities on Federal lands that may affect the arroyo toad or its critical habitat will require section 7 consultation. Activities on private or State lands requiring a permit from a Federal agency, such as a permit from the U.S. Army Corps of Engineers 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 arroyo toad. Federal activities that, when carried out, may adversely affect critical habitat for the arroyo toad include, but are not limited to:

(1) Actions that would affect aquatic, riparian, or upland areas by any Federal agency. Such activities could include,

but are not limited to, flood control or changes in water banking activities. These activities could eliminate or reduce the habitat necessary for the reproduction, sheltering, or growth of arroyo toads.

(2) Actions that would affect the regulation of water flows by any Federal agency. Such activities could include, but are not limited to, damming, diversion, and channelization. These activities could eliminate or reduce the habitat necessary for the reproduction, sheltering or growth of arroyo toads.

(3) Actions that would involve regulations funded or permitted by the Federal Highway Administration. (We note that the Federal Highway Administration does not fund the routine operations and maintenance of the State highway system.). Such activities could include, but are not limited to, new road construction and right-of-way designation. These activities could eliminate or reduce aquatic or riparian habitat along river crossings necessary for reproduction, sheltering or growth of arroyo toads.

(4) Actions that would involve regulation of airport improvement activities by the Federal Aviation Administration. Such activities could include, but are not limited to, the creation or expansion of airport facilities. These activities could eliminate or reduce aquatic, riparian, or upland habitat necessary for the reproduction, sheltering, foraging, or growth of arroyo toads.

(5) Actions that would involve licensing of construction of communication sites by the Federal Communications Commission. Such activities could include, but are not limited to, the installation of new radio equipment and facilities. These activities could eliminate or reduce the habitat necessary for the reproduction, sheltering, foraging, or growth of arroyo toads.

(6) Actions that would involve 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. Such activities could include, but are not limited to, activities associated with the cleaning up of Superfund sites, erosion control activities, and flood control activities. These activities could eliminate or reduce upland and/or aquatic habitat for arroyo toads.

(7) Actions that would affect waters of the United States by the Army Corps under section 404 of the Clean Water Act. Such activities could include, but are not limited to, placement of fill.

These activities could eliminate or reduce the habitat necessary for the reproduction, feeding, or growth of arroyo toads.

Of the six units we are designating as critical habitat, we consider four of them (units 2, 4, 9, 23) to be occupied by the species at the time of listing, as identified in the listing rule (59 FR 64859). Critical habitat units 20 and 21 were not known to be occupied at the time of listing but are currently occupied; the arroyo toad populations in these units have, in all likelihood, been inhabiting areas within these two units for many years, but were not detected until after the species became listed in 1994. We consider all of the units designated as critical habitat, as well as those that have been excluded, to be essential to the conservation of the arroyo toad. All units are within the geographic range of the species, all are occupied by the species (based on observations made within the last 20 years), and are likely to be used by the arroyo toad, whether for foraging, breeding, growth of larvae and juveniles, intra-specific communication, dispersal, migration, genetic exchange, or sheltering. Federal agencies already consult with us on activities in areas currently occupied by the species or if the species may be affected by the action to ensure that their actions do not jeopardize the continued existence of the species.

We recognize that the 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, we want to ensure that the public is aware that critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the prohibitions of section 9 of the Act. 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, HCPs, or other species conservation planning efforts, if new information available to these planning efforts calls for a different outcome.

If you have questions regarding whether specific activities will constitute destruction or adverse modification of critical habitat, contact Diane Noda, Field Supervisor, Ventura Fish and Wildlife Office or Carlsbad

Fish and Wildlife Office (see **ADDRESSES** section). Requests for copies of the regulations on listed wildlife and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Branch of Endangered Species, 911 N.E. 11th Ave., Portland, OR 97232 (telephone 503/231-2063; facsimile 503/231-6243).

Application of Sections 3(5)(A) and 4(a)(3) and Exclusion 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, within the geographic area occupied by the species, if the features essential for the conservation of the species will not require special management considerations or protection, the area is not, by definition, critical habitat. To determine whether the essential features within an area may require 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 essential features within the area do not require special management.

We consider a current plan to provide adequate management or protection if it meets three criteria: (1) The plan is complete and provides a conservation benefit to the species (*i.e.*, the plan must maintain or provide for an increase in the species' population, or the

enhancement or restoration of its habitat within the area covered by the plan); (2) the plan provides assurances that the conservation management strategies and actions will be implemented (*i.e.*, those responsible for implementing the plan are capable of accomplishing the objectives, and have an implementation schedule or adequate funding for implementing the management plan); and (3) the plan provides assurances that the conservation strategies and measures will be effective (*i.e.*, it identifies biological goals, has provisions for reporting progress, and is of a duration sufficient to implement the plan and achieve the plan's goals and objectives).

Further, section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, 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 the provisions outlined in section 4(b)(2) of the Act to evaluate those specific areas that we are proposing as critical habitat. Lands we have excluded pursuant to section 4(b)(2) include those covered by the following types of plans if they provide assurances that the conservation measures they outline will be implemented and effective: (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) Endangered Species Management Plans prepared by the DOD (where a 4(a)(3) exemption is not possible due to a unsigned INRMP); and

(4) areas with significant economic impacts to landowners.

We have considered, but are excluding from critical habitat for the arroyo toad, essential habitat in the following areas under section 4(b)(2): Lands covered by the Orange County Central-Coastal NCCP/HCP, Western Riverside Multiple Species Habitat Conservation Plan (MSHCP), and pending Coachella Valley MSHCP; areas on Fort Hunter Liggett; and lands with significant economic impacts to landowners. See below for a detailed discussion of our exclusion of these lands under section 4(b)(2) of the Act.

Section 318 of fiscal year 2004 the National Defense Authorization Act (Public Law 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). 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. The following installations have INRMPs in place that provide a benefit for the arroyo toad, and essential habitat on these installations is exempted from the critical habitat designation under section 4(a)(3): Marine Corps Base, Camp Pendleton and Naval Weapons Station, Seal Beach Detachment Fallbrook (Fallbrook Naval Weapons Station). See below for a detailed discussion of our exemption of these lands under section 4(a)(3) of the Act. Table 3 lists the total size of areas designated as critical habitat or as essential to the conservation of the arroyo toad, and areas excluded from the final designation.

TABLE 3.—TOTAL SIZE OF FINAL CRITICAL HABITAT FOR THE ARROYO TOAD, INCLUDING AREAS EXCLUDED AND EXEMPTED FROM THE FINAL DESIGNATION

Total essential habitat	104,699 ac (42,370 ha)
Essential habitat exempted under section 4(a)(3) of the Act: Camp Pendleton (except lands leased to the CDPR) and Fallbrook Naval Weapons Station.	12,630 ac (5,111 ha)
Exclusion of essential habitat under section 4(b)(2) of the Act: Fort Hunter Liggett; HCP plan areas including Central-Coastal Orange County NCCP/HCP, Western Riverside MSHCP, pending Coachella Valley MSHCP; areas with a significant economic impact to landowners.	80,374 ac (32,526 ha)
Total Final Critical Habitat	11,695 ac (4,732 ha)

Relationship of Critical Habitat to Military Lands—Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act

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 Camp Pendleton and Fallbrook Naval Weapons Station 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 arroyo toad. This includes portions of Unit 11 and Unit 12 on Camp Pendleton and a portion of Unit 12 on Fallbrook Naval Weapons Station. Although Fort Hunter Liggett has not completed an INRMP, we are excluding essential habitat on this base under 4(b)(2) of the Act based on their completed Endangered Species Management Plan for the arroyo toad. Detailed discussions of the exemptions and exclusion of military lands are discussed by installation below.

Marine Corps Base, Camp Pendleton

The arroyo toad occurs primarily in three watersheds on Camp Pendleton: Santa Margarita, San Onofre, and San Mateo Rivers. Arroyo toad populations within these watersheds on Camp Pendleton contain features essential to the conservation of the species because these watersheds retain relatively natural hydrological processes and functions. The Santa Margarita watershed is one of the least altered major watersheds occupied by the species throughout its range. Also, the lower portions of all three watersheds represent the last remaining coastal plain areas where high numbers of arroyo toads occur within 6 mi (10 km) of the coast and in coastal marsh zones. Elsewhere throughout the species' range, urban and agricultural development has been largely responsible for extirpating arroyo toad populations in low coastal plain areas.

Camp Pendleton's INRMP was completed and signed by the Commanding General on November 9, 2001. The INRMP provides conservation measures that will directly and indirectly benefit the arroyo toad and other listed species found on the Base. According to Camp Pendleton's March 16, 2005 comment letter, the Base annually reviews and updates its INRMP with cooperation of the Service and California Department of Fish and Game to verify that: (1) The Base has sufficient professionally trained natural resources management staff available to implement the INRMP; (2) there have not been significant changes to the installation's mission requirements or its natural resources; (3) planned actions are implemented in an adaptive manner, adjusting management priorities and methodologies to accommodate changing natural resource and mission requirements; and (4) the required Federal, State, and installation coordination has occurred.

Camp Pendleton manages listed species, including the arroyo toad, in its

riparian areas, such as Santa Margarita River, within the framework of programmatic management plans, approved in a biological opinion (BO) issued by the Service on October 30, 1995 (Service 1995). The biological opinion discussed ongoing and planned training activities, infrastructure maintenance activities, several construction projects, and a Riparian and Estuarine Ecosystem Conservation Plan and assessed potential impacts to six federally-listed species, including the arroyo toad. Management measures include, but are not limited to, programmatic instructions to avoid and minimize impacts to listed species (e.g. vehicle traffic must use existing roads, trails and crossings in riparian areas) and riparian habitat enhancement (exotic vegetation and animal control). Camp Pendleton's management of riparian areas provides a benefit to the arroyo toad.

Additionally, Camp Pendleton states in their March 16, 2005, comment letter that they are also conducting a study examining arroyo toad use of habitat dominated by giant reed (*Arundo donax*) and have partnered with the U.S. Geological Survey's Biological Resources Division to develop and implement a rigorous, science-based monitoring protocol for the arroyo toad populations on the Base.

Camp Pendleton has demonstrated ongoing funding of their INRMP and management of endangered and threatened species. According to their March 16, 2005, comment letter, in FY 2003, Camp Pendleton spent approximately \$5 million to fund INRMP-driven projects and to assure its implementation. During FY 2004, they applied over \$3.5 million toward projects, programs, and activities that provide direct and indirect benefit to the management and conservation of Base natural resources. Moreover, in partnership with the Service, Camp Pendleton is funding two Service biologists to assist in implementing their Sikes Act program and buffer lands acquisition initiative.

Based on Camp Pendleton's past funding history for listed species and their Sikes Act program, we believe there is a high degree of certainty that Camp Pendleton: (1) Will continue to have the necessary staffing, funding levels, funding sources, and other resources to implement their INRMP, (2) has the legal authority, legal procedural requirements, authorizations, and regulatory mechanisms to implement their INRMP and other conservation efforts, and (3) will implement the INRMP in coordination with the California Department of Fish and Game

and with the Service. We also believe that there is a high degree of certainty that the conservation efforts of their INRMP will be effective. Service biologists work closely with Camp Pendleton on a variety of endangered and threatened species issues, including the arroyo toad. The management programs and Base directives to avoid and minimize impacts to the species are consistent with current and ongoing section 7 consultations with Camp Pendleton. Through our cooperative relationship with Camp Pendleton and the section 7 consultation process, we can ensure that conservation efforts identified in the INRMP for the arroyo toad will: (1) Address the nature and extent of threats, (2) provide for monitoring and reporting progress on implementation, and (3) incorporate the principles of adaptive management. Therefore, we find that the INRMP for Camp Pendleton provides a benefit for the arroyo toad and are exempting from critical habitat all lands on Camp Pendleton, including lands leased to the State, pursuant to section 4(a)(3) of the Act.

Fallbrook Naval Weapons Station

Fallbrook Naval Weapons Station, located in northern San Diego County, is approximately 8,850 ac (3,581 ha). Fallbrook Naval Weapons Station contains high quality habitat that supports a large population of the arroyo toad within the Santa Margarita watershed. Arroyo toads at Fallbrook NWS have the potential to disperse into adjacent populations downstream on Camp Pendleton and upstream to suitable habitat on private lands.

In 1996, Fallbrook NWS completed an INRMP to address conservation and management recommendations within the scope of the installation's military mission. The INRMP provides conservation measures that will directly and indirectly benefit the arroyo toad and other listed species found on the Naval Station. The 1996 INRMP was prepared with input from the Service and incorporates conservation measures outlined in several previously completed consultations between the Service and Fallbrook NWS. Fallbrook NWS is currently working with the Service to revise and update their INRMP.

Additionally, Fallbrook NWS recently completed a formal section 7 consultation with the Service to revise their fire management plan to provide more effective fuels management and wildfire control, while minimizing impacts to listed species on the installation, including the arroyo toad. The revised fire management plan

incorporates fuels management and fire suppression activities with habitat management needs of the arroyo toad and other listed species to promote conservation and recovery of these species on Fallbrook NWS.

Based on Fallbrook Naval Weapons Station's Sikes Act program, we believe there is a high degree of certainty that they: (1) Will continue to have the necessary staffing, funding levels, funding sources, and other resources to implement their INRMP, (2) has the legal authority, legal procedural requirements, authorizations, and regulatory mechanisms to implement their INRMP and other conservation efforts, and (3) will implement the INRMP in coordination with the California Department of Fish and Game and with the Service. We also believe that there is a high degree of certainty that the conservation efforts of their INRMP will be effective. Service biologists work closely with Fallbrook Naval Weapons Station on a variety of endangered and threatened species issues, including the arroyo toad. The management programs and Station's directives to avoid and minimize impacts to the species are consistent with current and ongoing section 7 consultations with Fallbrook Naval Weapons Station. Through our cooperative relationship with Fallbrook Naval Weapons Station and the section 7 consultation process, we can ensure that conservation efforts identified in the INRMP for the arroyo toad will: (1) Address the nature and extent of threats, (2) provide for monitoring and reporting progress on implementation, and (3) incorporate the principles of adaptive management. Therefore, we find that the INRMP for Fallbrook Naval Weapons Station provides a benefit for the arroyo toad and are exempting from critical habitat all lands on Fallbrook Naval Weapons Station pursuant to section 4(a)(3) of the Act.

Fort Hunter Liggett

The arroyo toad occupies an approximately 17-mi (27.4-km) segment of the San Antonio River at Fort Hunter Liggett. This segment contains features essential to the conservation of the species and is of important biological value because it supports the northernmost known population and is approximately 100 mi (160 km) north of the nearest documented extant population. Arroyo toads in this unit may experience climatic conditions not faced by toads at sites farther south. The protection of this area is important to maintaining the complete genetic variability of the species and the full range of ecological settings within

which it is found. This stretch of the San Antonio River is undammed, provides excellent habitat for the arroyo toad, and supports probably one of the largest populations within the Northern Region.

In the proposed rule, we considered but did not propose to include mission-essential training areas on Fort Hunter Liggett as critical habitat for the arroyo toad under section 4(b)(2) of the Act, because designation of critical habitat could adversely impact national security. The Army conducts training operations using landing fields, tanks, machine guns, grenade launchers, and other weapons at Fort Hunter Liggett. The Army has stated that it considers critical habitat to conflict with mission-essential training tasks, and that critical habitat designation would adversely affect Fort Hunter Liggett's training mission. The Army submitted a map to us of the mission-essential training areas that are found within lands we determined to contain features essential to the conservation of the arroyo toad (Army, in litt. 2003). During the public comment period for the proposal, the Army stated that we had incorrectly concluded that the only mission-essential areas are the individual training sites. Rather, all Fort Hunter Liggett lands are essential for realistic and effective training. Thus, the designation of the areas we proposed as critical habitat would seriously limit their ability to conduct critical training activities.

The Army recognizes the need for protection and conservation of sensitive species, including the arroyo toad, on military lands and has identified conservation measures to protect and conserve arroyo toads and their habitat. The Army has coordinated with us to finalize the development of their Endangered Species Management Plan (ESMP) for the arroyo toad at Fort Hunter Liggett, which currently guides management of all lands occupied by arroyo toads along the San Antonio River. The ESMP includes measures to minimize harm to the arroyo toad from training activities and outlines actions to ensure the persistence of arroyo toads on the installation. The ESMP is an appendix to, and part of, the INRMP for Fort Hunter Liggett. We expect the INRMP, which is in a final draft form, to be finalized and signed in 2005. We have reviewed Fort Hunter Liggett's ESMP in relation to the three criteria listed above for evaluating management plans, and we find that the ESMP meets the criteria and will provide a benefit to the arroyo toad population at Fort Hunter Liggett.

(1) Benefits of Inclusion

The primary benefit of any critical habitat with regard to activities that require consultation pursuant to section 7 of the Act is to ensure that the activity will not destroy or adversely modify designated critical habitat. The educational benefits of critical habitat include informing the Army of areas that are important to the conservation of listed species. However, because the Army has worked cooperatively with the Service to develop an ESMP that protects the toad and its essential habitat on Fort Hunter Liggett, and the nearly finalized INRMP is expected to be completed in 2005 (for which we will complete a Section 7 consultation), we do not believe that designation of critical habitat on the fort will significantly benefit the arroyo toad beyond the protection already afforded the species under the Act. In addition, through the INRMP development process and development of the ESMP for the arroyo toad, the Army is already aware of essential arroyo toad habitat areas on the installation.

(2) Benefits of Exclusion

Substantial benefits are expected to result from the exclusion of Fort Hunter Liggett from critical habitat. The Army has stated that all training and non-training areas together are integral to their mission of ensuring troop readiness. If we designate critical habitat on the base the Army would be required to engage in consultation with us on activities that may affect designated critical habitat. The requirement to consult on activities occurring on the base could delay and impair the ability of the Army to conduct effective training activities and limit Fort Hunter Liggett's utility as a military training installation, thereby adversely affecting national security.

In addition, exclusion of Fort Hunter Liggett lands from the final designation will allow us to continue working with the Army in a spirit of cooperation and partnership. In the past the Army has generally viewed the designation of critical habitat as having a negative regulatory effect that discourages cooperative and proactive efforts by the Army to conserve listed species and their habitats. The DoD generally views designation of critical habitat on military lands as an indication that their actions to protect the species and its habitat are inadequate. Excluding these areas from the perceived negative consequences of critical habitat will facilitate cooperative efforts between the Service and the Army to formulate the best possible INRMP and ESMP, and

continue effective management of the arroyo toad at Fort Hunter Liggett.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

We met with the Army on December 12, 2003, at Fort Hunter Liggett to discuss essential arroyo toad habitat, and possible impacts to the base. We also received extensive comments from the Army during the public comment period. In light of national security interests and the Army's need to maintain a high level of readiness and fighting capabilities, and in light of the Army's completed ESMP for the arroyo toad, we excluded critical habitat on all lands within unit 1, including all Fort Hunter Liggett lands, under section 4(b)(2) of the Act. We find that the benefits of excluding these lands from critical habitat outweigh the benefits of including them. We further find that the exclusion of these areas will not lead to the extinction of the arroyo toad because Army training activities are conducted primarily outside of the riparian corridor where toads are concentrated, and the ESMP is expected to effectively manage for the persistence of the San Antonio River population.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

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. Exclusions under this section for non-economic reasons are addressed above.

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 the areas in question are currently occupied by the arroyo toad 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 the species, and other protections for the species exist elsewhere in the Act and under State and local laws and regulations. In addition, some areas are also occupied by other listed species and in some cases are designated as critical habitat for those species. 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 which may overstate some costs.

Conversely, the 9th 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 adverse modification should be focused on impacts to recovery. While we have not yet proposed a new definition for public review and comment, changing the adverse modification definition to respond to the Court's direction may result in additional costs associated with critical habitat definitions (depending upon the outcome of the rulemaking). This issue was not addressed in the economic analysis for the arroyo toad, as this was well underway at the time the decision was issued and we have a court-ordered deadline for reaching a final decision, so we cannot quantify the impacts at this time. However, it is a factor to be

considered in evaluating projections of future economic impacts from critical habitat.

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 are a balancing consideration against the possibility that some of the costs shown in the economic analysis might be attributable to other factors, or be overly high, and so not necessarily 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.

Unit 3

We have excluded all of proposed Unit 3, consisting of approximately 3,675 ac (1,487 ha) under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of

this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would exceed \$20 million between the years 2004 through 2025, almost all of which would be related to impacts to local water supplies. These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, modification of current operations of dams and other elements of water projects, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

We note that the analysis made the assumption that the Service would require revisions in dam operations to benefit the species in only half of the cases where such modifications could reasonably be required, as only the higher priority situations were likely to be addressed. As a result, the analysis reduced the estimated cost impacts to water supplies by 50% across-the-board.

While this is one possible outcome, it is also quite possible that the Service, either of its own volition or as the result of litigation, might in fact address every case where modification to existing dam operations are needed to avoid adverse modification of critical habitat, if it were designated. Therefore, in both this and other units addressed below where there are significant projected costs relating to water supplies, there is a reasonable possibility that these costs may be twice the projected amounts.

The analysis also presents an alternative under which costs would be approximately half of the amount provided, but does not have, and thus does not provide, information to indicate the probability of this occurring. As a result, it is quite apparent how the higher costs could be reached, but not clear as to whether the lower-cost scenario could occur.

The economic analysis looked at two different generally accepted ways of measuring economic impacts from the designation—economic efficiency and regional economic impact. The figures resulting from these analyses are not the same, and should not be added in an effort to obtain cumulative totals. Please consult the economic analysis for explanations of the two methods and of their differences.

The economic analysis found that in addition to the efficiency effects noted above, the total impacts to water supply from this unit and other proposed units would cause a regional reduction in output of \$10.6 million between the years 2004 through 2025 (again reduced by 50% on the assumption that only half the affected dams would be required to undertake changes, as explained above—see Table 18 of the Economic Analysis) and a loss of 85 jobs.

By excluding this unit, some or all of those costs will be avoided.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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 there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 5

We have excluded all of proposed Unit 5, consisting of approximately 2,921 ac (1,182 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled “Effects of Critical Habitat Designation.” Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical

habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently occupied by the species, consultation for activities which might adversely impact the species, including possibly significant habitat modification (see definition of at 50 CFR 17.3) would be required even without the critical habitat designation and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would exceed \$15 million between the years 2004 through 2025. Over \$14 million of this would be related to impacts to local water supplies (see also discussion above on water costs). These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, modification of current operations of dams and other elements of water projects, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 6

We have excluded all of proposed Unit 6, consisting of approximately 2,538 ac (1,027 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently occupied by the species, consultation for activities which might adversely impact the species, including possibly significant habitat modification (see definition of at 50 CFR 17.3) would be required even without the critical habitat designation and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would exceed \$21 million between the years 2004 through 2025. Over \$16 million of this would fall on private property owners, and over \$3 million would be

related to impacts to local water supplies (see also discussion above on water costs). These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, modification of current operations of dams and other elements of water projects, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat.

In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater

conservation benefits than would result from a designation. In regards to subunit 6b specifically, the Natural River Management Plan (NRMP) (Valencia Company 1998) ensures the protection of most of the river corridor areas considered essential for the arroyo toad along the Santa Clara River and lower San Francisquito Creek with conservation easements, which total approximately 1,200 ac (486 ha). The Newhall Ranch Specific Plan (separate from the NRMP), includes protection via conservation easement for the Santa Clara River corridor from just above the confluence of Castaic Creek down to the Los Angeles County border. The Castaic Creek river corridor below the I-5 bridge would be protected via conservation easement as well. Newhall Land has also agreed to protect approximately 48 additional ac (19 ha) of prime arroyo toad habitat within the Santa Clara River corridor near the I-5 bridge via conservation easement (riparian areas not included in the NRMP). Thus, most all of the breeding habitat and riparian river corridor in subunit 6b is protected or designated for protection via conservation easement. Ultimately, these easements will extend along every river mile of Castaic Creek, San Francisquito Creek, and the Santa Clara River within subunit 6b. There is accordingly no reason to believe that the exclusion of unit 6 would result in extinction of the species.

Unit 7

We have excluded all of Unit 7, consisting of approximately 1,772 ac (717 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign

specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently occupied by the species, consultation for activities which might adversely impact the species, including possibly significant habitat modification (see definition of at 50 CFR 17.3) would be required even without the critical habitat designation and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consulting with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be nearly \$36 million between the years 2004 through 2025. Over \$26 million of this would fall on private property owners, and over \$7 million would be related to impacts to local water supplies (see also discussion above on water costs). These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, modification of current operations of dams and other elements of water projects, time delays, and uncertainty. By excluding this unit, some or all of those costs will be avoided.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 10

We have excluded all of Unit 10, consisting of approximately 5,256 ac (2127 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be nearly \$56 million between the years 2004 through 2025. Over \$53 million of this would fall on private property

owners. These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. There is accordingly no reason to believe that these

exclusions would result in extinction of the species.

Unit 11

We have excluded all private lands in proposed Unit 11, consisting of approximately 1,399 ac (566 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled “Effects of Critical Habitat Designation.” Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream’s natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple

notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be nearly \$18 million between the years 2004 through 2025. Over \$15 million of this would fall on private property owners. These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The

exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 12

We have excluded all private lands in Unit 12, consisting of approximately 537 ac (217 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be over \$40 million between the years 2004 through 2025, nearly all of which would fall on private property owners. These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 13

We have excluded all of Unit 13, consisting of approximately 2,115 ac (856 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth

of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be over \$34 million between the years 2004 through 2025, nearly all of which would fall on private property owners. These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation.

In regards to subunits 13a and 13b specifically, the Western Riverside MSHCP offers additional conservation measures to protect the arroyo toad within their planning area, including surveying for additional populations and protecting habitat, which will help ensure the long-term conservation of the arroyo toad. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 14

We have excluded all of Unit 14, consisting of approximately 8,669 ac (3508 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the

section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be nearly \$144 million between the years 2004 through 2025. Over \$133 million of this would fall on private property owners, and over \$8 million would be related to impacts to local water supplies (see also discussion above on water costs). These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, modification of

current operations of dams and other elements of water projects, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. In regards to portions of Unit 14 specifically, the Rincon and Pala Indian Tribes have each offered additional conservation measures to protect arroyo toad habitat on their lands.

The Pala Band of Mission Indians' arroyo toad management plan states that the Tribe will work to achieve the following as conservation practices to benefit the arroyo toad: (1) Maintenance of open space along Pala Creek and the San Luis Rey River to allow for within stream movements by arroyo toads and water flow; (2) encouragement of allottees to cluster dwellings near roadways to create corridors for toad movements into upland areas; (3) placement of a vehicle bridge across the San Luis Rey River to remove impacts to toads by vehicles crossing the river; and (4) removal of non-native plants and animal species throughout toad corridors.

The Rincon Band of Mission Indians' arroyo toad management plan provides a comprehensive management framework to address threats to the toad within the HMA, including: (1) Monitoring and eradication of introduced plants and animals; (2) exclusion of mining; (3) exclusion of livestock grazing; (4) exclusion of unauthorized recreational uses and off-road vehicle use; and (5) provide a community educational outreach component. This plan is intended to serve as an interim plan that will be incorporated into the Rincon Tribe's Multiple Species Habitat Conservation Plan currently under development and scheduled for completion by or before 2006. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 15

We have excluded all of Unit 15, consisting of approximately 6,183 ac (2,502 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future

actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining -breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consulting with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be over \$81 million between the years 2004 through 2025, nearly all of which would fall on private property owners. These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam

operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 16

We have excluded all of Unit 16, consisting of approximately 10,259 ac (4,152 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical

habitat would require a consultation with us, as explained above, in the section of this notice entitled “Effects of Critical Habitat Designation.” Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream’s natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be over \$180 million between the years 2004 through 2025. Nearly \$168 million of this would fall on private property owners, and nearly \$10 million would be related to impacts to local water supplies (see also discussion above on water costs). These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values

associated with the avoidance of arroyo toads and their habitat, modification of current operations of dams and other elements of water projects, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation.

In regards to portions of subunits 16a, 16b, and 16c specifically, the San Diego Multiple Species Conservation Program offers additional conservation measures

to protect the arroyo toad within their planning area, including protecting and maintaining sufficient, suitable, low-gradient sandy stream habitat to meet the arroyo toad's breeding requirements; preserve sheltering and foraging habitats within 0.6 mi (1km) of occupied breeding habitat within designated preserve lands; and control nonnative predators and human impacts within designated preserve land. Preserve lands are currently under development and are intended to be permanently maintained and managed for the benefit of the arroyo toad and other covered species. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 17

We have excluded all of Unit 17, consisting of approximately 1,955 ac (791 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be over \$71 million between the years 2004 through 2025. Over \$40 million of this would fall on private property owners, and nearly \$30 million would be related to impacts to local water supplies (see also discussion above on water costs). These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, modification of current operations of dams and other elements of water projects, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there

be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation.

In regards to portions of subunit 17d specifically, the San Diego Multiple Species Conservation Program offers additional conservation measures to protect the arroyo toad within their planning area, including protecting and maintaining sufficient, suitable, low-gradient sandy stream habitat to meet the arroyo toad's breeding requirements; preserve sheltering and foraging habitats within 0.6 mi (1km) of occupied breeding habitat within designated preserve lands; and control nonnative predators and human impacts within designated preserve land. Preserve lands are currently under development and are intended to be permanently maintained and managed for the benefit of the arroyo toad and other covered species. Additionally, in regards to portions of 17a, the Barona Band of Mission Indians and Viejas Band of Kumeyaay Indians have both agreed to establish a cooperative approach with us concerning arroyo toad conservation on certain lands in Capitan Grande Reservation, which is jointly administered by both Tribes. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 18

We have excluded all of Unit 18, consisting of approximately 5,347 ac (2164 ha), under section 4(b)(2) of the Act. The analysis which led us to the

conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs

associated with designating this unit of the proposed critical habitat would be over \$98 million between the years 2004 through 2025. Over \$94 million of this would fall on private property owners, and nearly \$2 million would be related to impacts to local water supplies (see also discussion above on water costs). These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, modification of current operations of dams and other elements of water projects, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were

designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation.

In regards to portions of subunits 18a, 18b, and 18c specifically, the San Diego Multiple Species Conservation Program offers additional conservation measures to protect the arroyo toad within their planning area, including protecting and maintaining sufficient, suitable, low-gradient sandy stream habitat to meet the arroyo toad's breeding requirements; preserve sheltering and foraging habitats within 0.6 mi (1km) of occupied breeding habitat within designated preserve lands; and control nonnative predators and human impacts within designated preserve land. Preserve lands are currently under development and are intended to be permanently maintained and managed for the benefit of the arroyo toad and other covered species.

In addition, the Sycuan Band of Kumeyaay Nation Habitat Conservation Strategy Measures Plan (HCSMP) includes the following conservation measures: (1) Protection of existing habitat for compliance and species recovery; (2) enhancement of existing habitat; (3) restoration to create new habitat; (4) management of habitat to maintain and preserve ecological functions; (5) avoidance and minimization of direct impacts on individuals and populations land habitat of covered species; (6) population enhancement measures that directly or indirectly increase abundance of covered species, and (7) research necessary to improve conservation measure effectiveness. Conservation measures to protect, enhance, restore habitat are primarily directed toward conservation of focus species' habitat, such as that for the arroyo toad, on the Reservation and Singing Hills golf course. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 19

We have excluded all of Unit 19, consisting of approximately 11,315 ac (4,579 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be over \$202 million between the years 2004 through 2025, nearly all of which would fall on private property owners.

These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation.

In regards to portions of subunit 19b specifically, the San Diego Multiple

Species Conservation Program offers additional conservation measures to protect the arroyo toad within their planning area, including protecting and maintaining sufficient, suitable, low-gradient sandy stream habitat to meet the arroyo toad's breeding requirements; preserve sheltering and foraging habitats within 0.6 mi (1km) of occupied breeding habitat within designated preserve lands; and control nonnative predators and human impacts within designated preserve land. Preserve lands are currently under development and are intended to be permanently maintained and managed for the benefit of the arroyo toad and other covered species. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Unit 22

We have excluded all of Unit 22, consisting of approximately 6,328 ac (2,561 ha), under section 4(b)(2) of the Act. The analysis which led us to the conclusion that the benefits of excluding this area exceed the benefits of designating it as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are currently occupied by the species. If these areas were designated as critical habitat, any actions with a Federal nexus which might adversely modify the critical habitat would require a consultation with us, as explained above, in the section of this notice entitled "Effects of Critical Habitat Designation." Yet another benefit might be modification of current operations of dams and other elements of water projects to provide water at times more beneficial to the species than the current operation of some dams within proposed critical habitat. Since the economic analysis of this is based on projections of future actions, it is not possible to assign specific actions, and benefits to the species, for particular units.

In general, the modifications would be designed to have water flows in stream reaches downstream from dams more closely resemble the stream's natural state. Benefits would include avoidance of excess artificial water flows washing eggs or tadpoles downstream, possibly avoiding growth of exotic species, increasing the availability of open sand bar habitat, and maintaining breeding pools long enough for larvae to develop.

However, inasmuch as this area is currently 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 and without regard to the existence of a Federal nexus.

In summary, we believe that this proposed unit as critical habitat would provide little additional Federal regulatory benefits for the species. Because the proposed critical habitat is occupied by the species, there must be consultation with the Service over any Federal action which might impact the toad. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple notice and comments which accompanied the development of this regulation, and publicity over the prior litigation.

(2) Benefits of Exclusion

The economic analysis conducted for this proposal estimates that the costs associated with designating this unit of the proposed critical habitat would be over \$27 million. Over \$25 million of this would fall on private property owners. These figures include costs associated with conducting consultations with us pursuant to section 7 of the Act, loss of land values associated with the avoidance of arroyo toads and their habitat, time delays, and uncertainty. Excluding this unit would avoid some or all of those costs.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

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, including possible changes to dam operations, which may be already provided for as discussed above—which could result from including those lands in this designation of critical habitat.

We also believe that excluding these lands, and thus helping landowners and water users 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, which requires—even in the post-Gifford Pinchot environment—only that the there be no adverse modification resulting from Federally-related actions. 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.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. In addition, as discussed above, there are a substantial number of Habitat Conservation Plans and other active conservation measures underway for the species, which provide greater conservation benefits than would result from a designation. In regards to subunit 22a specifically, the Rancho Las Flores Planned Community (Rancho Las Flores) and neighboring Las Flores Ranch (both in Summit Valley, San Bernardino County), have each offered additional conservation measures to protect arroyo toad habitat on their lands.

Additional conservation measures offered by Rancho Las Flores include the protection of approximately 290 ac (117 ha) of prime arroyo toad habitat within the river corridors of Horsethief Creek and the West Fork of the Mojave River. Additional protection along Grass Valley Creek is contemplated as well. As a part of the development plans for Rancho Las Flores, the land owners have agreed to minimize impacts to arroyo toad habitat from humans, cattle, and development, monitor the status of the arroyo toad, and remove exotic species.

Additional conservation measures offered by Las Flores Ranch include the protection of approximately 190 acres (77 ha) of prime arroyo toad habitat within the river corridors of Horsethief Creek and the West Fork of the Mojave River as well as measures to minimize impacts from humans, horses, and development. There is accordingly no reason to believe that the exclusion of unit 22 would result in extinction of the species.

Relationship of Critical Habitat to Approved Habitat Conservation Plans—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. Some areas occupied by the arroyo toad involve several complex HCPs that address multiple species, cover large areas, and are important to many participating permittees. 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 for the arroyo toad, a primary goal of these regional plans is to provide for the protection and management of habitat essential for the

species' conservation, while directing development to other areas. The regional HCP development process provides an opportunity for more intensive data collection and analysis regarding the use of particular habitat areas by the arroyo toad. The process also enables us to conduct detailed evaluations of the importance of such lands to the long-term survival of the species in the context of constructing a system of interlinked habitat blocks that provide for its biological needs.

We considered, but did not designate as critical habitat, lands within the Central-Coastal NCCP/HCP in Orange County and Western Riverside MSHCP under section 4(b)(2) of the Act. These approved and legally operative HCPs include portions of two critical habitat units (units 8 and 9). We believe the benefits of excluding lands within these legally operative HCPs from the final critical habitat designation will outweigh the benefits of including them. The following represents our rationale for excluding these areas.

Orange County Central Coastal Subregional NCCP/HCP

All essential habitat for the arroyo toad in Unit 8 in western Orange County is excluded under section 4(b)(2) of the Act from critical habitat because it is within the Orange County Central Coastal Subregional NCCP/HCP. The Central-Coastal NCCP/HCP in Orange County was developed in cooperation with numerous local and State jurisdictions and agencies, and participating landowners, including the cities of Anaheim, Costa Mesa, Irvine, Orange, and San Juan Capistrano; Southern California Edison; Transportation Corridor Agencies; The Irvine Company; California Department of Parks and Recreation; Metropolitan Water District of Southern California; and Orange County. Approved in 1996, the Central-Coastal NCCP/HCP provides for the establishment of approximately 38,738 ac (15,677 ha) of reserve lands for 39 covered species within the 208,713 ac (84,463 ha) planning area. All of Unit 8 is within the plan area. We issued an incidental take permit under section 10(a)(1)(B) of the Act that provides conditional incidental take authorization for the arroyo toad for all areas within the Central-Coastal Subregion, except the North Ranch Policy Plan area. This take authorization only applies to smaller arroyo toad populations, reintroduced populations, or populations that have expanded due to NCCP/HCP reserve management. It also requires implementation of a mitigation plan to relocate toads to protected areas within reserves, when

necessary. The Central-Coastal NCCP/HCP provides for monitoring of the arroyo toad and adaptive management of its habitat within the reserve system. Adaptive management activities may include a program to control exotic predators, such as bullfrogs, clawed frogs, and nonnative fishes. It also includes a program to close dirt road crossings without culverts or upgrading such crossings with concrete fords and/or culverts on publicly owned lands outside the reserve system, if baseline monitoring indicates such measures would likely be effective.

The North Ranch Policy Plan area was excluded from take authorization provided under the Central Coastal NCCP/HCP's biological opinion due to a lack of detailed biological information and specific conservation commitments at the time of adoption of the NCCP/HCP. We have since determined that available arroyo toad habitat within the North Ranch Policy Plan area has features essential to the conservation of the arroyo toad because it helps support a viable Santa Ana Mountain arroyo toad population. In 2002, the owner, The Irvine Company, granted a conservation easement to The Nature Conservancy over a portion of the North Ranch Policy Plan Area that covered the arroyo toad critical habitat areas. We recognize that the Irvine Company has taken steps to conserve the North Ranch Policy Area, including a \$10 million management endowment. The conservation easement provides adequate protection for arroyo toad habitat within this unit. As a result, we are excluding the North Ranch Policy Plan area from critical habitat.

Western Riverside MSHCP

Portions of essential habitat for the arroyo toad in Unit 9 located on non-Federal lands are excluded under section 4(b)(2) of the Act from critical habitat because they are within the Western Riverside MSHCP in western Riverside County. Participants in this HCP include 14 cities and the County of Riverside, including the Riverside County Flood Control and Water Conservation Agency, Riverside County Transportation Commission, Riverside County Parks and Open Space District, and Riverside County Waste Department. California Department of Parks and Recreation and Caltrans are also participants. Approved on June 22, 2004, the Western Riverside MSHCP provides for the establishment of approximately 153,000 ac (62,000 ha) of diverse habitats of reserve lands for 146 covered species within the 1.26-million acre (510,000-ha) planning area. The conservation of 153,000 ac (62,000 ha)

will complement other existing natural and open space areas (e.g., State Parks, Forest Service, and County Park Lands). The Western Riverside MSHCP provides for conservation actions within the planning area, including surveying for additional populations and habitat protection, which will help ensure the long-term conservation of the arroyo toad. We are designating portions of Unit 9 on U.S. Forest Service lands within the planning area boundary of the Western Riverside MSHCP as critical habitat because Forest Service activities are not covered under a section 10(a)(1)(B) permit.

(1) Benefits of Inclusion

Under section 7, critical habitat designation will provide little additional benefit to the arroyo toad within the boundaries of these approved HCPs. The principal benefit of any designated critical habitat is that federally-funded, permitted, or authorized activities that may affect critical habitat will require consultation under section 7 of the Act. Such consultations ensure that adequate protection is provided to avoid adverse modification or destruction of critical habitat. Currently approved HCPs that cover the toad are designed to ensure the conservation of the species within the plan area, and incorporate special management and protection measures for arroyo toad habitat within plan boundaries. The adequacy of plan measures to protect the toad and its habitat has undergone thorough evaluation in the section 7 consultations completed prior to approval of the plans, and therefore, the benefit of including these areas to require section 7 consultation is negated.

Development and implementation of these HCPs have provided other important conservation benefits for the toad, including the development of biological information to guide conservation efforts and assist in the species' recovery. The educational benefits of designating critical habitat, including informing the public of areas that are important to the conservation of listed species, are essentially the same as those that have occurred during the process of reviewing and approving these HCPs. Specifically, each of these HCPs involved public participation through public notices and public comment periods, prior to being approved. For these reasons, we believe that designation of critical habitat would provide little additional benefit in areas covered by these approved HCPs. Federal actions that may affect the toad will still require consultation under section 7 of the Act.

(2) Benefits of Exclusion

The benefits of excluding HCPs from critical habitat designation include relieving landowners, communities, and counties of any additional regulatory burden that might be imposed by critical habitat. Many HCPs, particularly large regional HCPs, take many years to develop and, upon completion, become regional conservation plans that are consistent with the recovery objectives for listed species that are covered within the plan area. Additionally, many of these HCPs provide conservation benefits to unlisted sensitive species. Imposing an additional regulatory review after an HCPs is completed solely as a result of the designation of critical habitat may undermine conservation efforts and partnerships in many areas. In fact, it could result in the loss of species' benefits if participants abandon the voluntary HCP process. Designation of critical habitat within the boundaries of approved HCPs could also be viewed as a disincentive to those entities currently developing HCPs or contemplating them in the future. The benefits of excluding lands within approved HCPs generally from critical habitat apply fully to the approved HCPs discussed above that cover the arroyo toad.

A related benefit of excluding lands within approved HCPs that cover the arroyo toad from the critical habitat designation is the continued ability to seek new partnerships with future HCPs participants, including States, counties, local jurisdictions, conservation organizations, and private landowners, which together can implement conservation actions that we would be unable to accomplish otherwise. If lands within approved HCPs plan areas are designated as critical habitat, it would likely have a chilling effect on our ability to establish new partnerships to develop HCPs, particularly large regional HCPs that involve numerous participants and address landscape-level conservation of the toad and its habitat. By excluding these lands, we preserve our current partnerships and encourage additional conservation actions in the future. We have determined that the benefits of excluding lands within approved HCPs from critical habitat designation outweigh the benefits of inclusion.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

In general, we find that the benefits of critical habitat designation on lands within approved HCPs are small while the benefits of excluding such lands from designation of critical habitat are

substantial. After weighing the small benefits of including these lands against the much greater benefits derived from excluding them, including relieving property owners of an additional layer of approvals and regulation, and encouraging the pursuit of additional conservation partnerships, we are excluding lands within approved HCPs from the critical habitat designation pursuant to section 4(b)(2) of the Act. The educational benefits of critical habitat, including informing the public about areas that are important for the long-term survival and conservation of the species, have been provided by the public notice and comment procedures required to establish these HCPs.

We have reviewed and evaluated the approved Orange County Central Coastal Subregional NCCP/HCP and the Western Riverside NCCP/HCP for Unit 8 and Unit 9 and find that each of these HCPs includes the arroyo toad as a covered species and provides protection for the arroyo toad and its associated habitat in perpetuity. Excluding these lands also preserves the partnerships that we developed with the local jurisdictions and project proponent in the development of the HCPs and NCCP/HCPs. Therefore, essential habitat covered under these HCPs and NCCP/HCPs have been excluded pursuant to section 4(b)(2) of the Act since the benefits of exclusion outweigh the benefits of inclusion as critical habitat.

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections unchanged from those which would exist if the excluded areas were designated as critical habitat. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Relationship of Critical Habitat to the Pending Coachella Valley Multiple Species Habitat Conservation Plan—Exclusions Under Section 4(b)(2) of the Act

Portions of Unit 23 are being excluded pursuant to section 4(b)(2) of the Act from designated critical habitat because they are located within the draft Coachella Valley MSHCP or Plan in

Riverside County. The draft Coachella Valley MSHCP has been in development from the mid-1990s to the present, pursuant to an application to the Service for a Section 10(a)(1)(B) permit under the Act. The following entities submitted signed a Memorandum of Understanding (Planning Agreement) to govern the preparation of the MSHCP: Coachella Valley Association of Governments (CVAG); the cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage; County of Riverside; U.S. Fish and Wildlife Service; California Department of Fish and Game; Bureau of Land Management; U.S. Forest Service; and the National Park Service. Subsequently, California Department of Transportation, Coachella Valley Water District, Imperial Irrigation District, Riverside County Flood Control and Water Conservation District, Riverside County Regional Parks and Open Space District, Riverside County Waste Management District, California Department of Parks and Recreation, and Coachella Valley Mountains Conservancy also decided to participate in preparation of the Plan. The parties later amended the Planning Agreement to also address the requirements of the Natural Community Conservation Planning (NCCP) Act and prepared a NCCP pursuant to California Fish and Game Code Section 2810. The draft Coachella Valley MSHCP area encompasses approximately 1.2 million ac (485,623 ha), of which 69,000 ac (27,923 ha) is owned by an Indian Reservation and are not included in the draft MSHCP, leaving a total of 1.1 million ac (445,154 ha) addressed by the draft MSHCP in Riverside County.

It is estimated by CVAG that there are 2,045 ac (828 ha) of habitat for arroyo toad in the draft MSHCP plan area, all within the proposed Whitewater Canyon Conservation. Of this 2,045 ac (828 ha), 1,296 ac (525 ha) are considered existing conservation lands. Of the 749 ac (303 ha) of arroyo toad habitat not currently conserved within the Whitewater Canyon Conservation Area, the draft MSHCP proposes to conserve 674 ac (273 ha) of modeled arroyo toad habitat as part of the preferred alternative reserve design. All essential areas in Unit 23 are within the preferred alternative reserve. Other goals of this draft MSHCP include: (1) Protecting other important conservation areas to allow for population fluctuation and promote genetic diversity; (2) protecting essential ecological processes, such as sand transport systems, necessary to maintain core

habitat and other conserved areas; (3) maintaining biological corridors and linkages among all conserved populations to the maximum extent feasible; and (4) ensuring conservation of habitat quality through biological monitoring and adaptive management actions.

The draft MSHCP states that, although Whitewater Canyon is open to the public and existing uses that may impact arroyo toad habitat will not be eliminated by the MSHCP, impacts to essential habitat for the arroyo toad in Unit 23 will be minimized as a result of the following: (1) 96% of the modeled habitat will be conserved under the MSHCP; (2) the MSHCP includes acquisition of essential habitat on private lands in Whitewater Canyon from willing sellers; and (3) development of management prescriptions for land on essential habitat in public ownership in the canyon to minimize activities deleterious to the arroyo toad and its habitat. The Plan as states that other areas of potential suitable habitat in Snow Creek and Mission Creek will be conserved (CVMC 2004).

CVAG has demonstrated a sustained commitment to develop the MSHCP to comply with section 10(a)(1)(B) of the Act, the California Endangered Species Act, and the State's NCCP program. On November 5, 2004, the Service published a Notice of Availability of a Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the draft MSHCP.

Although not yet completed and implemented, CVAG has made significant progress in the development of its MSHCP to meet the requirements outlined in section 10(a)(1)(B) of the Act. In light of the Service's confidence that CVAG will reach a successful conclusion to its MSHCP development process, we are excluding lands within their preferred alternative reserve design from final critical habitat designation for the arroyo toad.

(1) Benefits of Inclusion

As stated previously, the benefits of designating critical habitat on lands within the boundaries of approved HCPs are normally small. Where HCPs are in place that include coverage for arroyo toad, our experience has shown that the HCPs and their Implementing Agreements include management measures and protections designed to protect, restore, enhance, manage, and monitor habitat that benefit the long-term protection of the species. The principal benefit of designating critical habitat is that projects carried out, authorized, or funded by Federal

agencies that may affect critical habitat require the action agency to consult with the Service to ensure such activities do not destroy or adversely modify designated critical habitat. In the case of the CVAG, their draft MSHCP will be analyzed by the Service to determine the effects of the MSHCP on the species for which the participants are seeking incidental take permits. The draft MSHCP currently under review by the Service reflects revisions made to the Plan based on comments and input from the Service and California Department of Fish and Game.

(2) Benefits of Exclusion

Excluding lands within CVAG's draft MSHCP preferred alternative reserve design area from critical habitat designation will enhance our ability to work with Plan participants in the spirit of cooperation and partnership. A more detailed discussion concerning our rationale for excluding HCPs from critical habitat designation is outlined under the previous section. Further, the Service believes the analysis conducted to evaluate the benefits of excluding approved HCPs from critical habitat designation is applicable and appropriate to apply to CVAG's MSHCP.

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

In general, we find that the benefits of critical habitat designation on lands within pending HCPs that cover those species are small while the benefits of excluding such lands from designation of critical habitat are substantial. After weighing the small benefits of including lands within the draft MSHCP area against the much greater benefits derived from exclusion, we are excluding all essential areas within CVAG's draft MSHCP from the final critical habitat pursuant to section 4(b)(2) of the Act, with the exception of essential areas on lands that are owned by public agencies who are not signatories to the MSHCP (*i.e.*, U.S. Forest Service and Bureau of Land Management).

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

We believe that exclusion of these lands will not result in extinction of the species, as they are considered occupied habitat. Any actions which might adversely affect the toad, regardless of whether a Federal nexus is present, must undergo a consultation with the Service under the requirements of section 7 of the Act or receive a permit from us under section 10. The toad is protected from take under section 9. The exclusions leave these protections

unchanged from those which would exist if the excluded areas were designated as critical habitat. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

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. We conducted an economic analysis to estimate potential economic effects of the proposed arroyo toad critical habitat designation (Economic & Planning Systems 2004). The draft analysis was made available for public review on February 14, 2005 (70 FR 7459). We accepted comments on the draft analysis until March 16, 2005.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for the arroyo toad. 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. The total conservation costs from reported efficiency effects associated with the designation of critical habitat in this rule are approximately \$9 million from 2004 to 2025. This total includes losses in land value (by far the primary cost source), as well as project modification, administrative, CEQA, delay, and uncertainty costs.

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

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

on a substantial number of small entities. In our proposed rule, we withheld our determination of whether this designation would result in a significant effect as defined under SBREFA until we completed our draft economic analysis of the proposed designation so that we would have the factual basis for our determination.

According to the Small Business Administration (SBA), small entities include small organizations, such as independent nonprofit organizations, and small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as 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 this designation of critical habitat for the arroyo toad would affect a substantial number of small entities, we considered the number of small entities affected within particular types of economic activities (*e.g.*, land development, fruit and nut farms, cattle ranching, and small governments). We considered each industry or category individually to determine if certification is appropriate. In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement; some kinds of activities are unlikely to have any Federal involvement and so will not be affected by the designation of critical habitat. Designation of critical habitat only affects activities conducted, funded, permitted or authorized by Federal agencies; non-Federal activities are not affected by the designation.

When this critical habitat designation is effective, Federal agencies must consult with us if their activities may affect designated critical habitat. Consultations to avoid the destruction or adverse modification of critical

habitat would be incorporated into the existing consultation process. In areas where occupancy by arroyo toad is unknown, the designation of critical habitat could trigger additional review of Federal agencies pursuant to section 7 of the Act and may result in additional requirements on Federal activities to avoid destruction or adverse modification of critical habitat.

In our economic analysis of this designation we evaluated the potential economic effects on small business entities and small governments resulting from conservation actions related to the listing of this species and proposed designation of its critical habitat. We evaluated small business entities in three categories: land development, fruit and nut farms, and cattle ranching. On the basis of our analysis we determined that this proposed designation of critical habitat for the arroyo toad would result in: (1) An annual impact to less than one percent (17 projects and therefore businesses—assuming one project per business) of land development small businesses and that those businesses could realize an impact of approximately 20 percent of total annual sales; (2) an annual impact to less than one percent (one farm) of small fruit and nut farms and that that farm would realize an impact of less than three percent of total annual sales; (3) an annual impact to less than one percent of cattle ranches (one ranch) and that the ranch would realize an impact of less than approximately \$100,000 of total annual sales; (4) an annual impact to less than one percent of small viticulture firms (one firm) and that the firm would realize an impact of less than approximately five percent of total annual sales; and (5) an annual impact to less than one percent of small governments as a percent of the county total and small governments would realize an impact of less than one percent of annual government budget. Based on this data from the proposed rule, and the additional exclusions of units made in this final rulemaking, we have determined that this designation would not affect a substantial number of small land development companies, fruit and nut farms, or cattle ranches. Further, we have determined that this designation would also not result in a significant effect to the annual sales of those small impacted by this designation. As such, we are certifying that this designation of critical habitat would not result in a significant economic impact on a substantial number of small entities.

Local Government Impacts (Public Sector Impacts)

Only two small local governments would be affected by arroyo toad critical habitat designation: the cities of Rancho Santa Margarita and San Juan Capistrano. There is no record of consultations between the Service and these cities. In general, city governments may get involved in land use projects, and therefore section 7 consultations, through various permits, or involvement in local utility and infrastructure projects. This involvement is usually as an interested party, not the primary applicant. The economic analysis estimates that these two cities will consult as a prime applicant two times in the next 21 years. This would represent less than one percent of the total annual budget of each city.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements for the small businesses that may be required to consult with us regarding their project's impact on arroyo toad 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 sections 7(a)(2) and 9 of the Act if it chose to proceed without implementing the reasonable and prudent alternatives.

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 to 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 critical habitat units, the types of Federal actions or authorized activities that we have identified as potential concerns are:

- (1) Regulation of activities affecting waters of the United States by the Corps under section 404 of the Clean Water Act;
- (2) Regulation of water flows, damming, diversion, and channelization by any Federal agency;
- (3) Road construction and maintenance, right-of-way designation, and regulation of agricultural activities on Federal lands (such as those managed by the Service, Forest Service, DOD, or BLM);
- (4) Regulation of grazing, mining, and recreation by the BLM, DOD, Corps, or Forest Service;
- (5) Regulation of airport improvement activities by the FAA;
- (6) Military training and maneuvers, facilities operations, and maintenance on DOD lands designated as critical habitat;
- (7) Licensing of construction of communication sites by the Federal Communications Commission; and,
- (8) Funding of activities by the U.S. Environmental Protection Agency (EPA), Department of Energy (DOE), FEMA, Federal Highway Administration (FHA), 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 arroyo toad. 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; funding for Federal Highway Administration, Federal Emergency Management Agency or FAA projects; and regulation of grazing, mining, and recreation by the BLM, DOD, Corps, or Forest Service. We certify that the rule will not have a significant impact on a substantial number of small business entities. Therefore, a regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 802(2))

Under the Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 801 *et seq.*), this rule to designate critical habitat for the arroyo toad is not considered to be 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 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, nor will the rule have a significant economic impact on a substantial number of small entities. Refer to the final 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 arroyo toad 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 that receive Federal funding, assistance, or permits, or that 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 the Department of the Interior policies, 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 arroyo toad 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 the States and local resource agencies in that the areas essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the survival of the species are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist 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 Department of the Interior's

Office of the Solicitor has determined that this 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 Endangered Species Act. This rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of the arroyo toad.

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

This rule does not contain new or revised information collection for which OMB approval is required 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 Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, and the Department of the Interior's manual at 512 DM 2, we have coordinated with federally-recognized Tribes on a Government-to-Government basis. We have excluded Tribal lands from critical habitat pursuant to section 4(b)(2) of the Act based on economic considerations.

Relationship to Mexico

We are not aware of any existing national regulatory mechanism in Mexico that would protect the arroyo toad or its habitat. Although new legislation for wildlife is pending in Mexico, and Mexico has laws that could

provide protection for rare species, there are enforcement challenges. Even if specific protections were available and enforceable in Mexico, the portion of the arroyo toad's range in Mexico alone, in isolation, would not be adequate to ensure the long-term conservation of the species.

References Cited

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

Author

The primary author of this notice is the staff of the U.S. Fish and Wildlife Service.

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 follows:

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. 4201–4205; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

■ 2. Amend § 17.95(d) by revising critical habitat for the arroyo toad (*Bufo californicus*) to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(d) *Amphibians.*

* * * * *

ARROYO TOAD (*Bufo californicus*)

(1) Critical habitat units are depicted for Santa Barbara, Ventura, Los Angeles, San Bernardino, and Riverside Counties, California, on the maps below.

(2) The primary constituent elements of critical habitat for the arroyo toad are the habitat components that provide:

(i) Rivers or streams with hydrologic regimes that supply water to provide space, food, and cover needed to sustain eggs, tadpoles, metamorphosing juveniles, and adult breeding toads. Specifically, the conditions necessary to allow for successful breeding of arroyo toads are:

(A) Breeding pools with areas less than 12 in (30 cm) deep;

(B) Areas of flowing water with current velocities less than 1.3 ft per second (40 cm per second); and

(C) Surface water that lasts for a minimum length of 2 months in most years, *i.e.*, a sufficient wet period in the spring months to allow arroyo toad larvae to hatch, mature, and metamorphose.

(ii) Low-gradient stream segments (typically less than 6 percent) with sandy or fine gravel substrates that

support the formation of shallow pools and sparsely vegetated sand and gravel bars for breeding and rearing of tadpoles and juveniles.

(iii) A natural flooding regime or one sufficiently corresponding to a natural regime that will periodically scour riparian vegetation, rework stream channels and terraces, and redistribute sands and sediments, such that breeding pools and terrace habitats with scattered vegetation are maintained.

(iv) Riparian and adjacent upland habitats (particularly alluvial streamside terraces and adjacent valley bottomlands that include areas of loose soil where toads can burrow underground) to provide foraging and living areas for subadult and adult arroyo toads.

(v) Stream channels and adjacent upland habitats that allow for migration to foraging areas, overwintering sites, dispersal between populations, and recolonization of areas that contain suitable habitat.

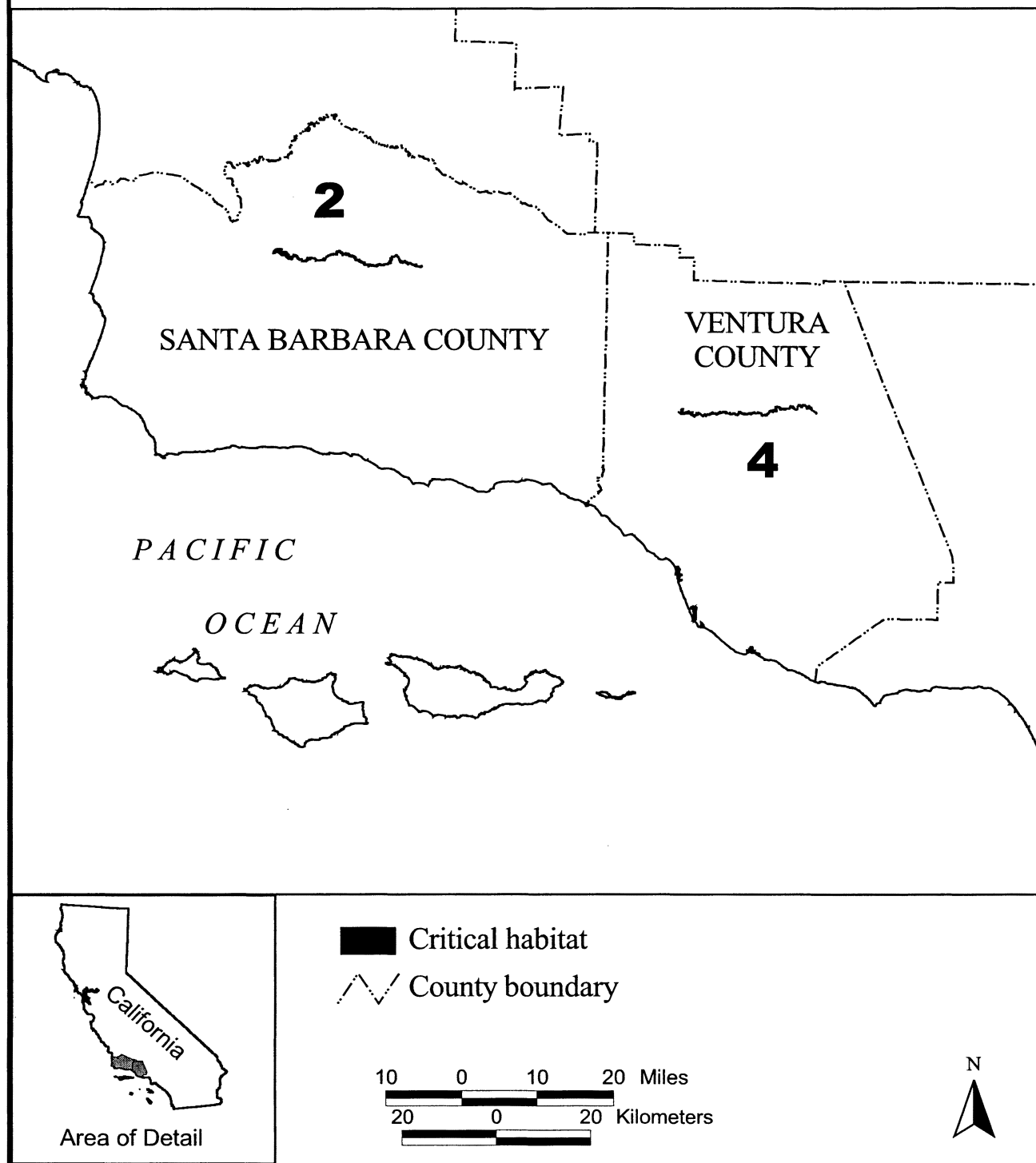
(3) Critical habitat does not include man-made structures existing on the effective date of this rule and not containing one or more of the primary constituent elements, such as buildings, aqueducts, airports, roads, and the land on which such structures are located.

(4) Index maps of arroyo toad critical habitat.

(i) *Note:* Map 1 (index map) follows:

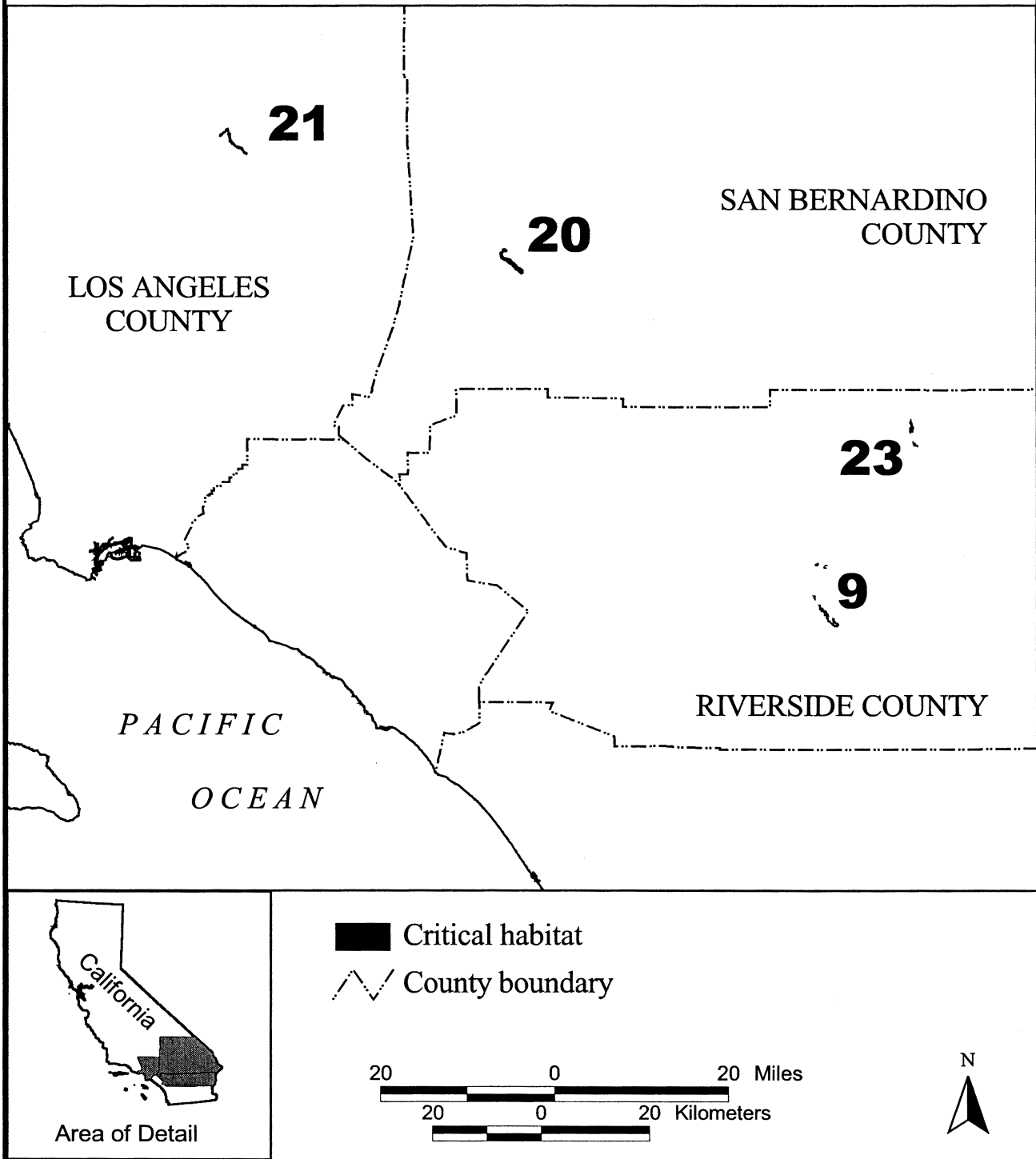
BILLING CODE 4310–55–P

Index 1:
Final Critical Habitat Units for Arroyo Toad
(*Bufo californicus*)



(ii) Map 2 (index map) follows:

Index 2:
Final Critical Habitat Units for Arroyo Toad
(*Bufo californicus*)



Bald Mountain and Hurricane Deck.
Land bounded by the following UTM
Zone 10, NAD 27 coordinates (E, N):

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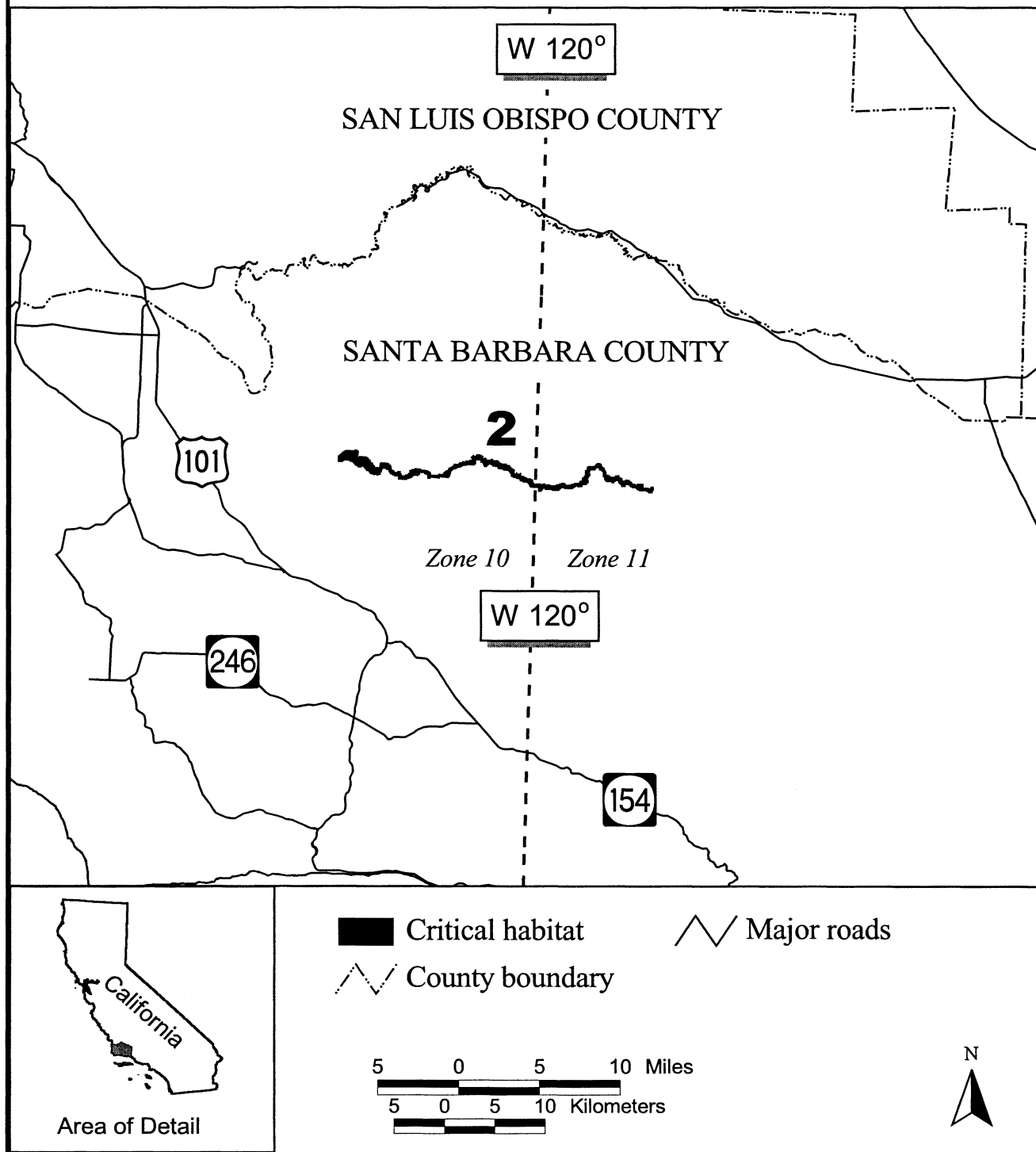
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(ii) **Note:** Map of Unit 2 follows.

Final Critical Habitat (Unit 2) for Arroyo Toad (*Bufo californicus*), Santa Barbara County, California



(6) Unit 4; Sespe Creek, Ventura County, California.

(i) From USGS 1:24,000 scale quadrangles Wheeler Springs, Lion

Canyon, Topatopa Mountains, and Devils Heart Peak. Land bounded by the

following UTM zone 11, NAD 27
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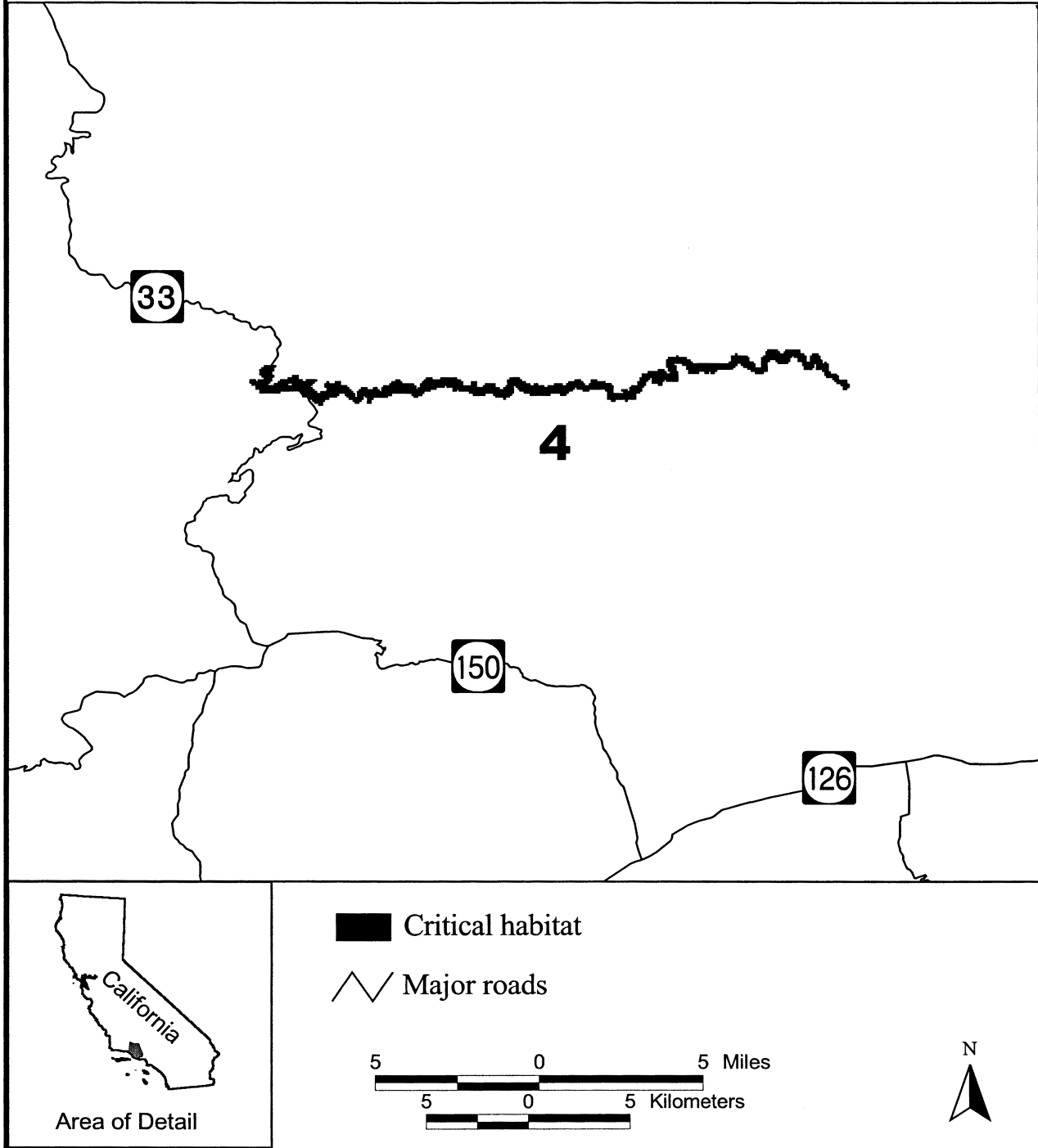
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316700, 3827600; 316800, 3827600;
316800, 3827700; 316900, 3827700;
316900, 3827900; 317000, 3827900;
317000, 3828000; 317500, 3828000;
317500, 3827900; 317600, 3827900;
317600, 3827800; 317800, 3827800;
317800, 3827900; 317900, 3827900;
317900, 3828000; returning to 318600,
3828000; excluding land bounded by
293600, 3826200; 293600, 3826300;
293400, 3826300; 293400, 3826200;
293600, 3826200.

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

BILLING CODE 4310-55-P

Final Critical Habitat (Unit 4) for Arroyo Toad (*Bufo californicus*), Ventura County, California



(7) Unit 9; San Jacinto River Basin/ Bautista Creek, Riverside County, California.

(i) From USGS 1:24,000 scale quadrangle Blackburn Canyon. Land bounded by the following UTM zone 11, NAD27 coordinates (E, N): 515200, 3733300; thence east to the Cleveland National Forest (CNF) boundary at y-coordinate 3733300; thence south, west, and north along the CNF boundary, passing y-coordinate 3733300, to x-coordinate 515200; returning to 515200, 3733300.

(ii) Land bounded by the following UTM zone 11, NAD27 coordinates (E, N): 517000, 3732900; thence south to the CNF boundary at x-coordinate 517000; thence west and north along the CNF boundary to y-coordinate 3732900; returning to 517000, 3732900.

(iii) Land bounded by the following UTM zone 11, NAD27 coordinates (E, N): 516700, 3732300; 516700, 3732400; thence west to the CNF boundary at y-coordinate 3732400; thence north and southeast along the CNF boundary to y-coordinate 3732300; returning to 516700, 3732300.

(iv) Land bounded by the following UTM zone 11, NAD27 coordinates (E, N): 514700, 3726400; 514700, 3726700; 514600, 3726700; 514600, 3726800; 514500, 3726800; 514500, 3727100; 514400, 3727100; 514400, 3727200;

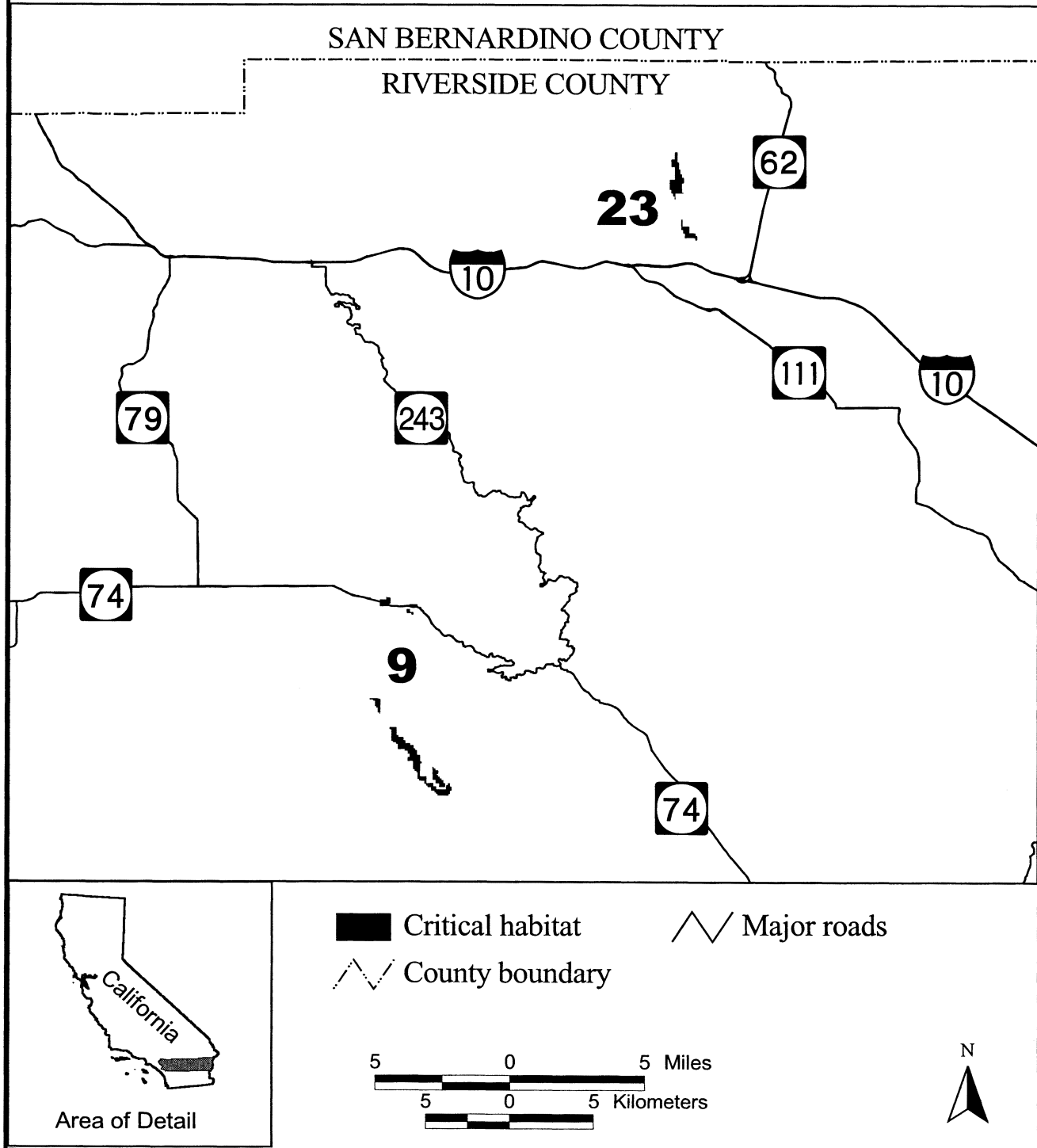
514200, 3727200; thence north to the CNF boundary at x-coordinate 514200; thence east and south along the CNF boundary to y-coordinate 3726300; thence west and following coordinates 514800, 3726300; 514800, 3726400; returning to 514700, 3726400.

(v) Land bounded by the following UTM zone 11, NAD27 coordinates (E, N): 515800, 3725000; 515900, 3725000; 515900, 3724900; 516200, 3724900; 516200, 3724700; 516300, 3724700; 516300, 3724500; 516600, 3724500; 516600, 3724400; 516800, 3724400; 516800, 3724200; 516900, 3724200; 516900, 3724100; 517000, 3724100; 517000, 3723800; 517200, 3723800; 517200, 3723400; 517300, 3723400; thence south to the CNF boundary at x-coordinate 517300; thence west and southeast along the CNF boundary, passing x-coordinate 518500, to y-coordinate 518800; thence east following coordinates 3721900; 518800, 3722000; 518900, 3722000; 518900, 3722100; 519000, 3722100; 519000, 3721900; 519100, 3721900; 519100, 3721700; 519000, 3721700; 519000, 3721500; 518900, 3721500; 518900, 3721400; 518300, 3721400; 518300, 3721500; 518200, 3721500; 518200, 3721600; 518100, 3721600; 518100, 3721700; 517900, 3721700; 517900, 3721900; 517700, 3721900; 517700, 3722000; 517600, 3722000; 517600,

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(vi) **Note:** Map of Unit 9 follows.

Final Critical Habitat (Units 9 and 23) for Arroyo Toad (*Bufo californicus*), Riverside County, California



(8) Unit 20; Upper Santa Ana River Basin/Cajon Wash, San Bernardino County, California.

(i) From USGS 1:24,000 scale quadrangle Cajon. Land bounded by the following UTM zone 11, NAD27

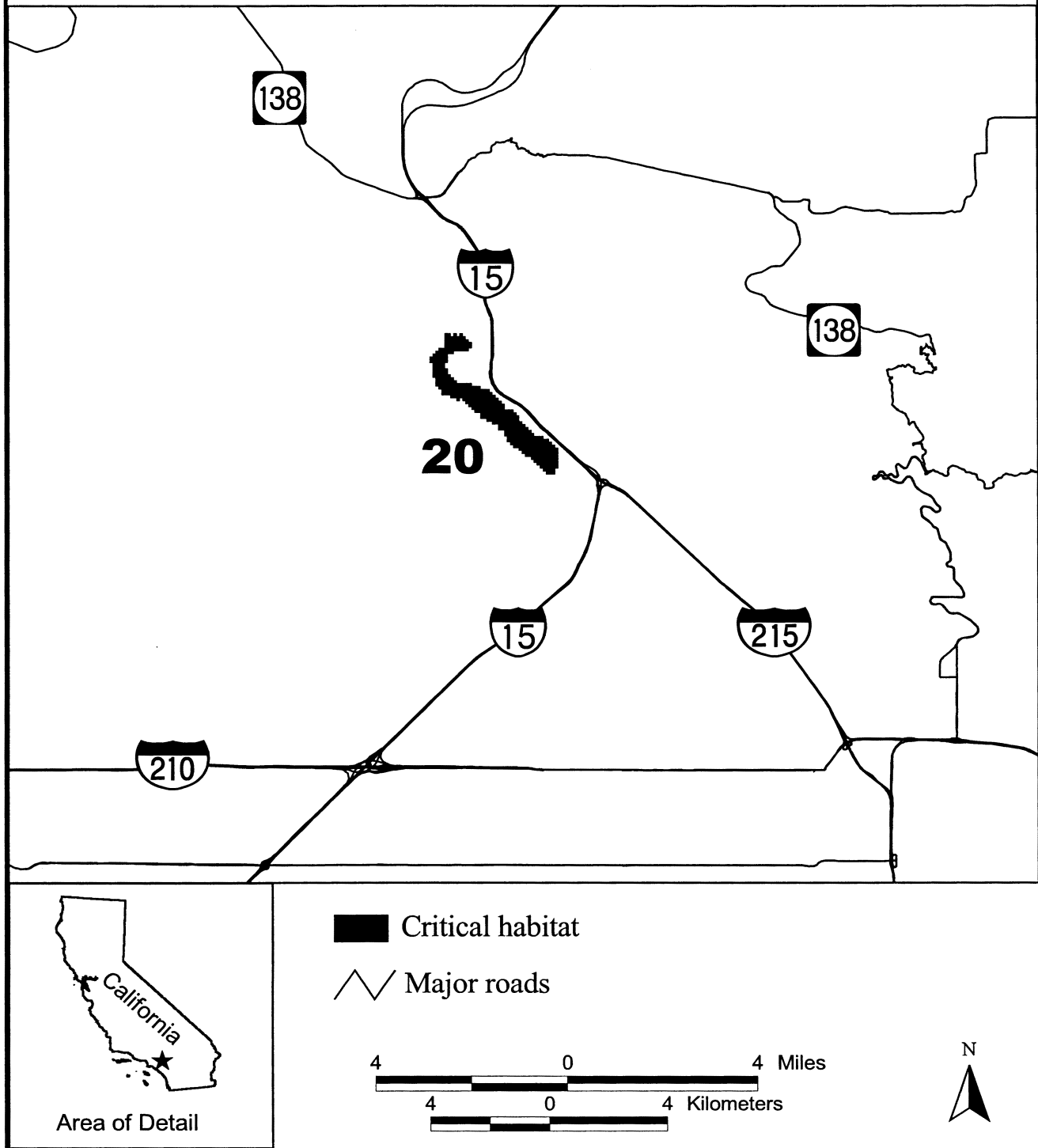
coordinates (E, N): 457100, 3792000;
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459200, 3788300; 459200, 3788500;
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456700, 3791200; 456700, 3791300;
456800, 3791300; 456800, 3791400;
456900, 3791400; 456900, 3791500;
457100, 3791500; returning to 457100,
3792000.

(ii) **Note:** Map of Unit 20 follows.

Final Critical Habitat (Unit 20) for Arroyo Toad
(*Bufo californicus*),
San Bernardino County, California



(9) Unit 21; Little Rock Creek Basin,
Los Angeles County, California.

(i) From USGS 1:24,000 scale
quadrangles Juniper Hills and Pacifico

Mountain. Land bounded by the
following UTM zone 11, NAD27

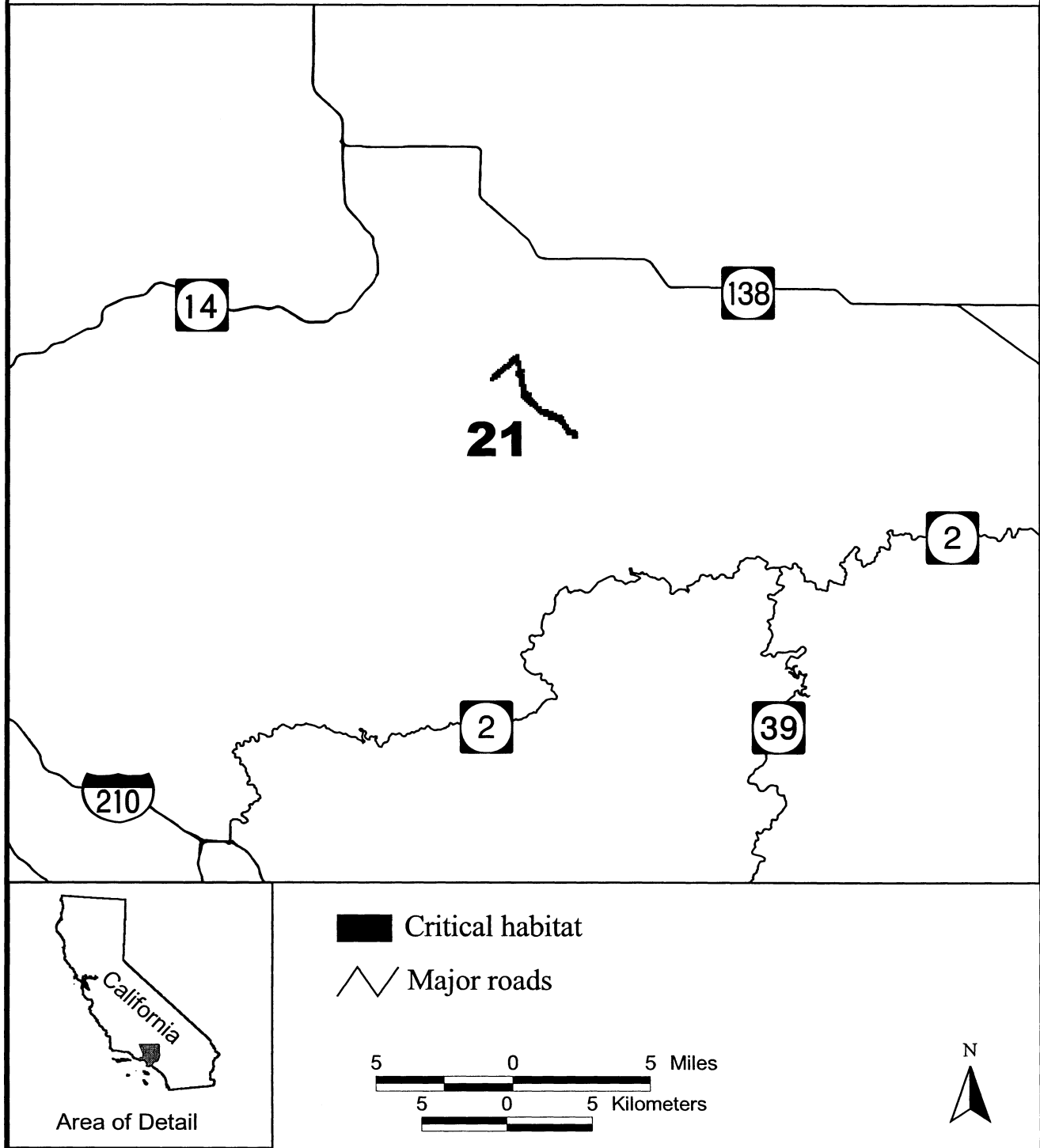
coordinates (E, N): 406300, 3814500;
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405800, 3813900; 405800, 3814000;
405900, 3814000; 405900, 3814200;
406000, 3814200; 406000, 3814300;
406100, 3814300; 406100, 3814400;
406300, 3814400; returning to 406300,
3814500.

(ii) **Note:** Map of Unit 21 follows.

Final Critical Habitat (Unit 21) for Arroyo Toad (*Bufo californicus*), Los Angeles County, California



(10) Unit 23; Whitewater River Basin, Riverside County, California.

(i) From USGS 1:24,000 scale quadrangle White Water. Land bounded

by the following UTM zone 11, NAD27 coordinates (E, N): 532500, 3759600;

532600, 3759600; 532600, 3759200;
532700, 3759200; 532700, 3758900;
532800, 3758900; 532800, 3758700;
532900, 3758700; 532900, 3758400;
532800, 3758400; 532800, 3757800;
532900, 3757800; thence south to the
Bureau of Land Management (BLM)
boundary at x-coordinate 532900;
thence west and south along the BLM
boundary to y-coordinate 3757400;
thence west and following coordinates
532400, 3757400; 532400, 3757600;
532300, 3757600; 532300, 3757800;

532200, 3757800; 532200, 3758000;
532100, 3758000; thence north to the
BLM boundary at x-coordinate 532100;
thence east and north along the BLM
boundary to y-coordinate 3759600;
returning to 532500, 3759600.

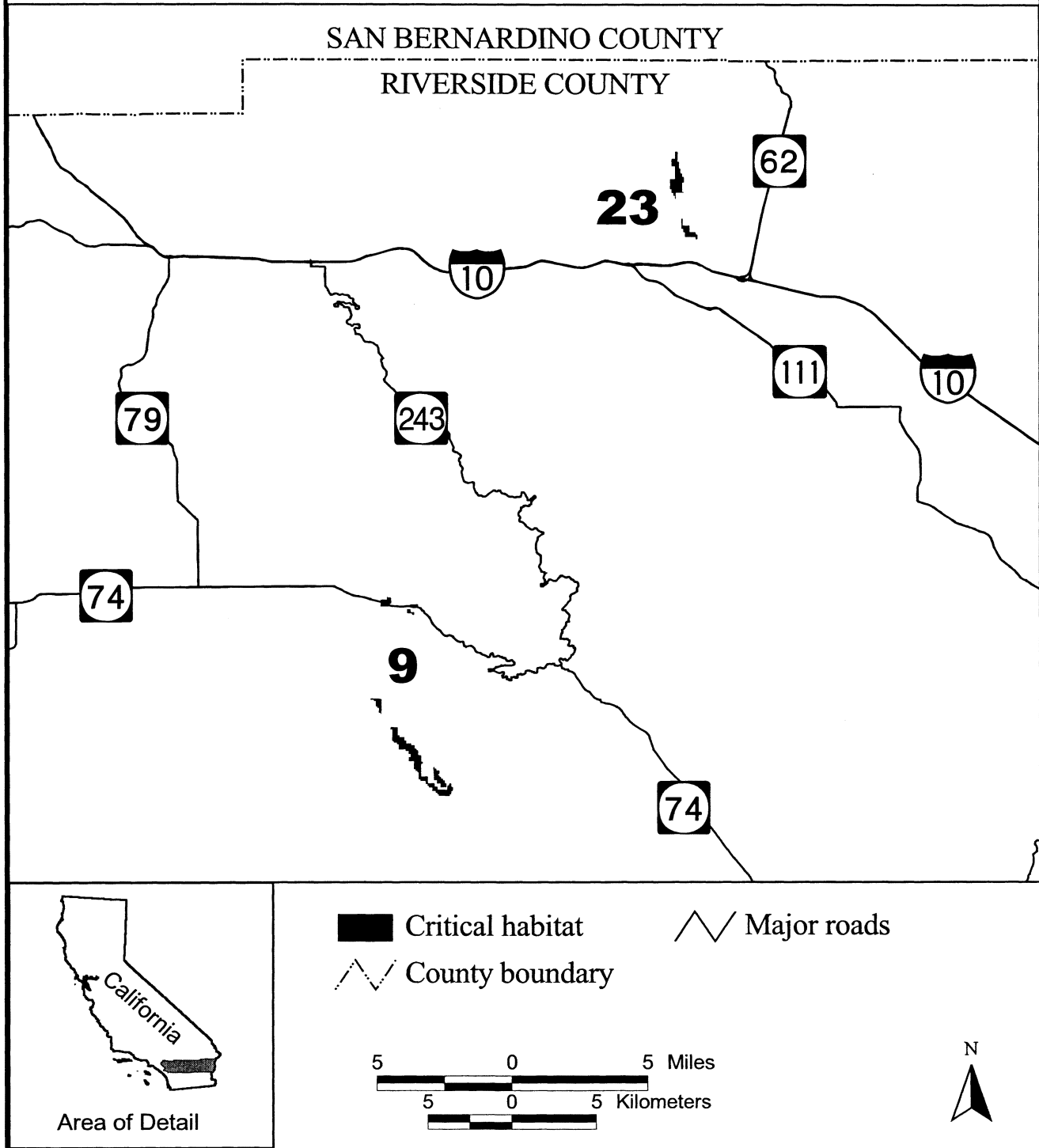
Land bounded by the following UTM
zone 11, NAD27 coordinates (E, N):
532800, 3755600; thence north to the
BLM boundary at x-coordinate 532800;
thence eastward along the BLM
boundary to x-coordinate 533600;
thence south and following coordinates

533600, 3755200; 533700, 3755200;
thence south to the BLM boundary at x-
coordinate 533700; thence westward
along the BLM boundary to x-coordinate
533000; thence north and following
coordinates 533000, 3755400; 532900,
3755400; 532900, 3755600; returning to
532800, 3755600.

(ii) **Note:** Unit 23 included on map
with Unit 9.

BILLING CODE 4310-55-P

Final Critical Habitat (Units 9 and 23) for Arroyo Toad (*Bufo californicus*), Riverside County, California



* * * * *

Dated: March 31, 2005.

Craig Manson,

*Assistant Secretary for Fish and Wildlife and
Parks.*

[FR Doc. 05-6824 Filed 4-12-05; 8:45 am]

BILLING CODE 4310-55-C