#37

Jeannie Townsend, Clerk of the Board 5-3-12
State Water Resources Control Board
1001 I St. 24th Floor
Sacramento Ca 95814

Comment Letter OWTS Policy

Location : Silverado Creek, Cleveland National Forest, Orange County, Calif
Status of
Silverado Creek : a) An Impaired Water Body due to Nitrogen or Pathogens Indicators Subject to Tier 3 (*Irvine Ranch Water Dist. 3-23-2012*)
b) 7.3 Miles of Silverado Creek is Endangered Species Critical Habitat for the Arroyo Toad *(Federal Register, FWS 2-9-11)*

The Canyon Land Conservation Fund has 500 members along the western edge of the Cleveland National Forest in Orange County. The CLCF is a 501 © 3 dedicated to preserving the last Natural Wild lands in Northeast Orange County.

The CLCF is 100% supportive of the Final Draft of the Water Quality Control Policy for Siting, Design, Operation and Maintenance of OWTS.

Impaired Water is a huge problem here in Orange County from continual beach closures to creeks in the county's section of Cleveland National Forest.

The details in Section 10 for Tier 3 insures current and future development does not increase pollution into our waterways.

Additionally, 7.3 miles of Silverado Creek in Orange County is Critical Habitat for the Federally Endangered Arroyo Toad. Thus current and future development must also adhere to the following Federal Rules and Regulations relating to water resources :

1. "Threats impacting the physical and biological features essential to the conservation of the arroyo toad…include ..alteration due to short-and long term changes in river hydrology including.. water diversions" (*Federal Register, FWS pages 52619 and 53620, Proposed Rules 10-13-11*)

2. "Applications of the Adverse Modification Standard …(1) Actions that alter water chemistry or temperature. Such activities include but are not limited to : Release of chemicals, biological pollutants or heated effluents into the surface water or into groundwater at a point source or by dispersed release (non-point source). These activities can alter water conditions beyond the tolerances of the arroyo toad and result in direct or cumulative adverse effects to these individuals and their life cycles" *(Federal Register, FWS page 52638 Proposed Rules 10-13-11)*

The Final Draft of the Water Quality Control Policy for Siting, Design, Operation and Maintenance of OWTS will work in tandem with the Final FWS Rules and Regulations for Critical Habitat for Arroyo Toad (FWS 10-13-2009 pages cited have been incorporated into the 2-9-12 Final Rules/Regs) as a buffer to urbanization impacting the Cleveland National Forest.

Thank you, for allowing this public comment period.

Ed Amador – President
Canyon Lands Conservation Fund
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[ONSITE WASTEWATER TREATMENT SITES]
STATE WATER RESOURCES CONTROL BOARD

Johnson, Michael [D3]

From: Cunningham, Laura
Sent: Monday, March 26, 2012 2:18 PM
To: Johnson, Michael [D3]; Bronstein, Louis
Subject: FW: Onsite Wastewater Treatment Systems - Septic Systems Proposed Statewide Policy

Fyi – let's discuss with public works when they come in for their monthly briefing on Thursday.

From: Beth Beeman [mailto:Beeman@irwd.com]
Sent: Friday, March 23, 2012 12:54 PM
To: Cunningham, Laura
Cc: Cook, Paul; Heiertz, Greg
Subject: Onsite Wastewater Treatment Systems - Septic Systems Proposed Statewide Policy

Hi Laura,

Thanks for returning my call. We're happy to give you a heads up and thought the Supervisor might be interested in passing along the information on the proposal etc. to the folks in OPA and Silverado. A quick first glance of the proposal looks like it might have the most impact on people in Silverado Canyon. Silverado Creek is listed as impaired for pathogens, which would subject to the OWTS Tier 3 regulation. This could potentially involve annual inspection and testing of existing OWTSs. OPA and the other canyon areas would probably fall under Tier 1, which is considerably less onerous. But like I said, this is a first glance and you might want some other folks to take a look at it.

The State Water Resources Control Board will be conducing a hearing and adoption meetings for a statewide draft policy for Siting, Design, Operation and Management of Onsite Wastewater Treatment Sites (OWTS) - Septic Systems and a draft Substitute Environmental Document. Written comments due Friday May 4, 2012 at 12n. You can find more information and dates of the meetings please on the the SWRCB website at http://www.swrcb.ca.gov/water_issues/programs/owts/

Let's touch base on Monday when you are back.

Have a great weekend.

Beth

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1,003 ac (406 ha) of private land. This subunit allows for natural population expansion and fluctuation of the Santa Clara River population by connecting arroyo toad habitat in Castaic Creek with San Francisquito Creek and the occupied reach of the Santa Clara River. Subunit 6b contains the physical and biological features that are essential to the conservation of the species, including breeding pools in low-gradient stream segments with sandy substrates (PCEs 1 and 2), seasonal flood flows (PCE 3), and riparian habitat and upland benches for foraging and dispersal (PCE 4). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from urban development, agriculture, recreation, mining, and nonnative predators.

The Secretary is exercising his discretion under section 4(b)(2) of the Act to exclude 330 ac (134 ha) of Subunit 6b that we proposed as revised critical habitat. This exclusion is based on our determination that the benefits of exclusion outweigh the benefits of inclusion, and that exclusion of these areas will not result in extinction of the species (*see* **Exclusions Under Section 4(b)(2) of the Act—Other Relevant Impacts** section below).

Additionally, based on closer examination of some upland areas that we proposed in the revised critical habitat proposal (74 FR 52612, October 13, 2009) and that we believed met the definition of critical habitat, we have found that these lands are either developed, used for intensive agriculture, or are inaccessible to arroyo toads due to busy roads or steep slopes. We now find that little of these lands remain as native habitats that would be useable as foraging areas by arroyo toads, do not contain the physical and biological features that are essential to the conservation of the arroyo toad, and therefore, do not meet the definition of critical habitat. Therefore, we have removed approximately 662 ac (268 ha) from Subunit 6b.

Subunit 6c

Subunit 6c encompasses approximately 11 mi (18 km) of upper Santa Clara River from Arrastre Canyon downstream to the confluence with Bee Canyon Creek. The subunit consists of 159 ac (64 ha) of Federal land and 1,120 ac (453 ha) of private land. This subunit is important for maintaining the arroyo toad metapopulation in the upper Santa Clara River Basin. Additionally, the upper portion of the Santa Clara River in this subunit supports a breeding population of arroyo toads (Farris 2001, pers. comm.; Hovore 2001, *in litt.*; Sandburg 2001, *in litt.*) that has the potential to greatly increase in size. Subunit 6c contains the physical and biological features that are essential to the conservation of the species, including breeding pools in low-gradient stream segments with sandy substrates (PCEs 1 and 2), seasonal flood flows (PCE 3), and riparian habitat and upland benches for foraging and dispersal (PCE 4). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from urban development, agriculture, recreation, mining, and nonnative predators.

Unit 7: Upper Los Angeles River Basin (1,190 ac (482 ha))

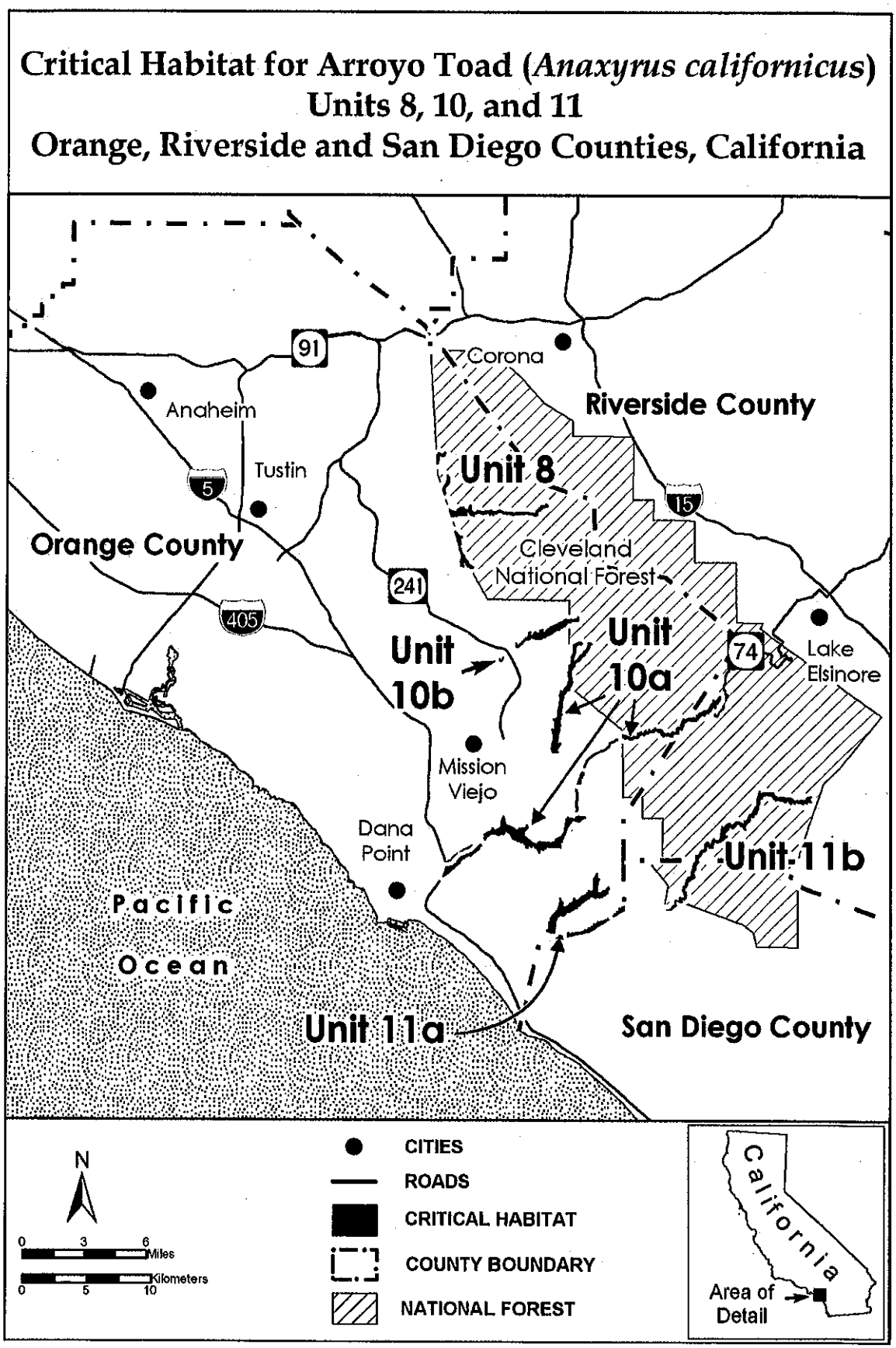
This unit is located in central Los Angeles County and encompasses: (1) Approximately 8 mi (13 km) of upper Big Tujunga Creek from immediately above Big Tujunga Reservoir upstream to approximately 1.2 mi (2 km) above the confluence with Alder Creek, (2) almost 3.7 mi (6 km) of Mill Creek from the Monte Cristo Creek confluence downstream to Big Tujunga Creek, and (3) approximately 1.9 mi (3 km) of Alder Creek from the Mule Fork confluence downstream to Big Tujunga Creek. The unit consists of 1,113 ac (451 ha) of Forest Service land and 77 ac (31 ha) of private land. This unit supports an arroyo toad population in the Big Tujunga Creek Canyon watershed in the Upper Los Angeles River Basin within the Angeles National Forest. This population is important because it occurs at a relatively high elevation that is atypical for arroyo toads, and it is the only known substantial population remaining in the coastal foothills of the San Gabriel Mountains. Unit 7 contains the physical and biological features that are essential to the conservation of the species, including aquatic habitat for breeding and non-breeding activities (PCEs 1, 2, and 3) and upland habitat for foraging and dispersal activities (PCE 4). The physical and biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats from nonnative predators, such as crayfish, bullfrogs, and nonnative plants, such as *Arundo donax* (giant reed grass).

Southern Recovery Unit

As described in the recovery plan (Service 1999, pp. 1–119), maintaining arroyo toad populations in the areas described by the following 12 unit descriptions is necessary to conserve the species in the southern recovery unit. These critical habitat units consist of a range of geographic locations from coastal regions to interior mountains. Arroyo toads likely occurred throughout each of these river and creek basins, but are now found only in segments of the rivers and creeks due to loss or change of habitat and nonnative predators. Conserving arroyo toad populations in these river basins is necessary for preserving the species' full range of genetic and phenotypic variation.

Unit 8: Lower Santa Ana River Basin (737 ac (298 ha))

This unit is located in east-central Orange County and encompasses: (1) Approximately 5.8 mi (9 km) of Santiago Creek from just below the town of Modjeska downstream to the confluence with Black Star Creek, (2) approximately 2 mi (3 km) of Black Star Creek downstream to the confluence with Santiago Creek, (3) an approximately 2.4-mi (4-km) stretch of lower Baker Canyon downstream to the confluence with Santiago Creek, and (4) approximately 7.3 mi (12 km) of Silverado Creek from the eastern edge of section 11 (T05S, R07W) in the Cleveland National Forest downstream to the confluence with Santiago Creek. As proposed, Unit 8 included a total of 2,182 ac (883 ha). Of these lands, we have now removed approximately 185 ac (75 ha), as we determined that these lands do not contain the physical or biological features essential to the conservation of the arroyo toad (*see* numbers 3 and 20 in **Summary of Changes from the 2009 Proposed Rule To Revise Critical Habitat** section above for a detailed discussion). The Secretary is exercising his discretion to exclude from this final revised critical habitat designation, under section 4(b)(2) of the Act, portions of Unit 8 totaling 1,259 ac (508 ha). The portion of Unit 8 we are designating as critical habitat consists of 54 ac (22 ha) of Forest Service land and 683 ac (276 ha) of private land. This unit contains a vital arroyo toad population in central Orange County that may represent one of the last remnants of a greater historical population from 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 discussed below). Unit 8 contains the physical and biological features that are essential to the



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(14) Unit 9: San Jacinto River Basin, Riverside County, California.

(i) Subunit 9a: From USGS 1:24,000 quadrangle maps San Jacinto, Lake

a given site may extend over several months (Griffin and Case 2001, p. 634). 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. Such habitats rarely have closed canopies over the lower banks of the stream channel due to periodic flood 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 in (30 cm) deep with clear water, 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, pp. 29–37). Although egg strings are laid in very slow-moving water, larvae (tadpoles) can be found in water velocities of up to 1.0 to 1.3 ft per second (30 to 40 cm per second) (Sweet 1992, p. 29). Breeding may occur on several dates at a single site, and eggs may be deposited over a period of 7 to 8 weeks (Campbell *et al.* 1996, p. 6). Breeding pools must persist a minimum of 2 months for the completion of larval development because changes in stream level or altering of the stream bed or breeding pool may cause high mortality to eggs and small larvae, sweeping them downstream, stranding and exposing them to desiccation, or burying and asphyxiating them with silt (Campbell *et al.* 1996, p. 6). Larvae usually hatch in 4 to 6 days at water temperatures of 54 to 59 degrees Fahrenheit (12 to 16 degrees Celsius). Tadpoles disperse from the pool margin into the surrounding shallow water, where they spend an average of 10 weeks. After metamorphosis, the juvenile arroyo toads remain on the bordering gravel bars until the pool dries out (usually from 8 to 12 weeks depending on the site and rainfall).

Primary Constituent Elements (PCEs) for the Arroyo Toad

Pursuant to the Act and its implementing regulations, when considering the designation of critical habitat, we must focus on the known principal primary constituent elements within the geographical area occupied by the arroyo toad at the time of listing that are essential to the conservation of the species. The essential physical and biological features are those PCEs laid out in an appropriate quantity and spatial arrangement determined to be essential to the conservation of the species. All areas proposed in this rule as revised critical habitat for the arroyo toad are currently occupied, are within the geographical area occupied by the species at the time of listing, and contain sufficient PCEs to support at least one life-history function.

Based on the above needs and our current knowledge of the life history, biology, and ecology of the species, and the habitat requirements for sustaining the essential life-history functions of the species, we have determined that the PCEs specific to the arroyo toad 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. Breeding pools must persist a minimum of 2 months for the completion of larval development. However, due to the dynamic nature of southern California riparian systems and flood regimes, the location of suitable breeding pools may vary from year to year. Specifically, the conditions necessary to allow for successful reproduction of arroyo toads are:

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

(2) Riparian and adjacent upland habitats, particularly low-gradient (typically less than 6 percent) stream segments and alluvial streamside terraces 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; and adjacent valley bottomlands that include areas of loose soil where toads can burrow underground, to provide foraging and living areas for juvenile and adult arroyo toads.

(3) A natural flooding regime, or one sufficiently corresponding to natural, characterized by intermittent or near perennial flow that contributes to the persistence of shallow pools into at least mid-summer, and that maintains areas of open, sparsely vegetated, sandy stream channels and terraces by periodically scouring riparian vegetation; and also that modifies stream channels and terraces and redistributes sand and sediment, such that breeding pools and terrace habitats with scattered vegetation are maintained.

(4) Stream channels and adjacent upland habitats that allow for movement to breeding pools, foraging areas, overwintering sites, upstream and downstream dispersal, and connectivity to areas that contain suitable habitat.

In summary, the need for space for individual and population growth and normal behavior is met by PCE (1); the need for food, water and physiological requirements is met by PCE (1); cover and shelter requirements are met by PCE (2); areas for breeding reproduction, and rearing of offspring are met by PCEs (1), (2), and (3); and habitats representative of the historical, geographical, and ecological distributions of a species are met by PCE (4).

With this proposed revised designation of critical habitat, we intend to conserve the physical and biological features that are essential to the conservation of the species, through the identification of the appropriate quantity and spatial arrangement of the PCEs sufficient to support the life-history functions of the species. Because not all life-history functions require all the PCEs, not all areas designated as critical habitat will contain all the PCEs. Each of the areas proposed for designation in this rule has been determined to contain sufficient PCEs to provide for one or more of the life-history functions of the arroyo toad.

Special Management Considerations or Protection

In accordance with the definition of critical habitat in section 3(5)(A) of the Act, when designating critical habitat within the geographical area occupied by the species at the time of listing, we assess whether the physical and biological features essential to the conservation of the arroyo toad may require special management considerations or protection. All areas being proposed as critical habitat may require some level of management to address current and future threats to the arroyo toad, to maintain or enhance the physical and biological features essential to its conservation, and to ensure the recovery and survival of the species.

A detailed discussion of threats impacting the physical and biological features essential to the conservation of the arroyo toad which may require special management considerations or protection, can be found in the final listing rule (59 FR 64859; December 16, 1994), the 2001 critical habitat designation (66 FR 9414; February 7, 2001), the 2005 critical habitat designation (70 FR 19561; April 13, 2005), and the recovery plan (Service 1999, pp. 1–119). In summary, these threats include habitat destruction and alteration due to short- and long-term changes in river hydrology, including

construction of dams and water diversions; alteration of riparian wetland habitats by agriculture and urbanization; construction of roads; site-specific damage by off-highway vehicle use and other recreational activities; overgrazing; and mining activities. Arroyo toads and their habitats are also threatened by introduced nonnative predators (such as bullfrogs and predatory fish), drought, periodic fires, unseasonal water releases from dams, livestock grazing, and light and noise pollution from adjacent developments and campgrounds. Activities that may require special management considerations or protection of the features essential to the conservation of the arroyo toad include, but are not limited to: dam construction and operation, river diversion, conversion of riparian wetland habitat by agriculture and urbanization, road construction, off-highway vehicle use, campground development, grazing, and mining. In each proposed critical habitat unit, special management may be needed to ensure that aquatic and terrestrial habitat are able to provide abundant breeding and non-breeding habitat, prey habitat, shelter, and connectivity within the landscape.

In summary, we find that each of the areas we are proposing as revised critical habitat contains features essential to the conservation of the arroyo toad, and that these features may require special management considerations or protection. Special management considerations or protection may be required to eliminate, or reduce to negligible level, the threats affecting each unit and to preserve and maintain the essential features that the proposed critical habitat units provide to the arroyo toad. A more comprehensive discussion of threats facing individual sites is in the individual unit descriptions.

The designation of critical habitat does not imply that lands outside of critical habitat do not play an important role in the conservation of the arroyo toad. Activities with a Federal nexus that may affect those unprotected areas outside of critical habitat, such as development, agricultural activities, and road construction, are still subject to review under section 7 of the Act if they may affect the arroyo toad. The take prohibitions of section 9 of the Act also continue to apply both inside and outside of designated critical habitat. Take is broadly defined in the Act as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a listed species, or to attempt to engage in any such conduct.

Criteria Used To Identify Critical Habitat

Using the best scientific and commercial data available as required by section 4(b)(1)(A) of the Act, we identified those areas to propose for revised designation as critical habitat that, within the geographical area occupied by the species at the time of listing (see "Geographic Range" section), possess those physical and biological features essential to the conservation of the arroyo toad and which may require special management considerations or protection. We also considered the area outside the geographical area occupied by the species at the time of listing for any areas that are essential for the conservation of the arroyo toad. The material we used included the 1994 final listing rule (59 FR 64859), the 2004 proposed critical habitat rule (69 FR 23254), 2008 CNDDB records, the arroyo toad recovery plan, 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, the 5-year review for the arroyo toad (Service 2009, pp. 1–51), and regional GIS coverages. We analyzed this information to develop criteria for identifying areas that contain the PCEs in the appropriate quantity and spatial arrangement essential to the conservation of the arroyo toad that may require special management considerations or protection, or that are essential for the conservation of the arroyo toad.

To begin our analysis, we first examined the CNDDB current and historical records to get an indication of the habitat where arroyo toads are present or absent. The CNDDB is a continually refined and updated inventory of location information gathered during species surveys and observations. We then examined the arroyo toad recovery plan (Service 1999, pp. 1–119), which has a recovery strategy focused on providing sufficient breeding and upland habitat to maintain self-sustaining populations of arroyo toads (defined as populations that require little or no direct human assistance such as captive breeding or rearing, or translocation between sites) throughout the historical range of the species, and on minimizing or eliminating impacts and threats to arroyo toad populations (Service 1999, p. 67). The recovery plan states that in-stream and riparian habitats that support breeding, as well as upland habitats that provide foraging and overwintering habitat, need to be managed to maintain and enhance populations throughout the range of the arroyo toad (Service 1999, p. 68). The recovery plan divides the range of the arroyo toad into three large recovery units—northern, southern, and desert—and we considered the recovery of each of these as well as the species as a whole in our analysis. Using the recovery plan as our guide, we analyzed areas within the geographical area occupied by the arroyo toad at the time of listing to determine which areas contained the PCEs laid out in the appropriate quantity and spatial arrangement essential to the conservation of the species (the physical and biological features).

In determining the specific areas containing the essential physical and biological features, based on the recovery plan, 5-year review, previous critical habitat proposals for the arroyo toad, scientific literature, and results of studies that have been conducted since the species was listed, we made sure that we are proposing critical habitat that will provide for the conservation of the species. Criteria we evaluated to assist our process include units: (1) That are dispersed throughout the current geographical, elevational, and ecological distribution of the species; (2) that would maintain the appropriate population structure across the species' range; (3) that retain or provide the connectivity between breeding sites that allows for the continued existence of essential metapopulations (a population of subpopulations in somewhat geographically isolated patches, interconnected through patterns of gene flow, extinction, and recolonization (Soule 1987, p. 7), despite fluctuations in the status of subpopulations); and (4) that contain upland habitat around each breeding location to allow for survival and recruitment to maintain a breeding population over the long term.

We also evaluated the area outside the geographical area occupied by the species at the time of listing to identify any areas that are essential for the conservation of the arroyo toad. We looked at areas that may have been historically occupied by arroyo toads based on CNDDB records but were no longer occupied at the time of listing. We also considered areas that may have the physical and biological features essential for the conservation of the species but have never been occupied. However, based on the best available scientific information, including the recovery plan which does not identify any such areas as being important to the recovery of the species, we determined that there are no areas outside the

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

An exception to the concurrence process referred to in (1) above occurs in consultations involving National Fire Plan projects. In 2004, the U.S. Forest Service and the Bureau of Land Management reached agreements with the Service to streamline a portion of the section 7 consultation process (BLM–ACA 2004, pp. 1–8; FS–ACA 2004, pp. 1–8). The agreements allow the U.S. Forest Service and the Bureau of Land Management the opportunity to make "not likely to adversely affect" determinations for projects implementing the National Fire Plan. Such projects include prescribed fire, mechanical fuels treatments (thinning and removal of fuels to prescribed objectives), emergency stabilization, burned area rehabilitation, road maintenance and operation activities, ecosystem restoration, and culvert replacement actions. The U.S. Forest Service and the Bureau of Land Management will insure staff is properly trained and both agencies will submit monitoring reports to the Service to determine if the procedures are being implemented properly and effects on endangered species and their habitats are being properly evaluated. As a result we do not believe the alternative consultation processes being implemented as a result of the National Fire Plan will differ significantly from those consultations being conducted by the Service.

If we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. We define "reasonable and prudent alternatives" 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,
- Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,
- Are economically and technologically feasible, and
- Would, in the Director's opinion, avoid jeopardizing the continued existence of the listed species or destroying or adversely modifying 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 we have listed a new species or subsequently designated critical habitat that may be affected, and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies may sometimes need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Federal activities that may affect the arroyo toad or its designated critical habitat will require section 7(a)(2) consultation under the Act. Activities on State, Tribal, local, or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit under section 10 of the Act from the Service) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) will also be subject to the section 7(a)(2) consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or permitted, do not require section 7(a)(2) consultations.

Application of the "Adverse Modification" Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species, or would retain its current ability for the PCEs to be functionally established. Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features (PCEs) to an extent that appreciably reduces the conservation value of critical habitat for the arroyo toad.

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 species.

Activities that, when carried out, funded, or authorized by a Federal agency, may adversely affect critical habitat and, therefore, should result in consultation for the arroyo toad include, but are not limited to, the following:

(1) Actions that alter water chemistry or temperature. Such activities include, but are not limited to: Release of chemicals, biological pollutants, or heated effluents into the surface water or into connected groundwater at a point source or by dispersed release (non-point source). These activities can alter water conditions beyond the tolerances of the arroyo toad and result in direct or cumulative adverse effects to these individuals and their life cycles.

(2) Actions that increase sediment deposition within the stream channel or disturb upland foraging and dispersal habitat. Such activities include, but are not limited to: Excessive sedimentation from livestock overgrazing, road construction, commercial or urban development, channel alteration, timber harvest, off-highway vehicle or recreational use, and other watershed and floodplain disturbances. These activities could eliminate or reduce the habitat necessary for the growth and reproduction of the arroyo toad by increasing the sediment deposition to levels that would adversely affect their ability to complete their life cycles.

(3) Actions that alter channel morphology or geometry. Such activities include, but are not limited to: Flood control and water diversion structures, such as dams and reservoirs, that regulate stream flows and trap sediments, direct groundwater extraction, channelization, impoundment, road and bridge construction, development, mining, dredging, and destruction of riparian vegetation. These activities may lead to changes to the hydrologic functioning of the stream and alter the timing, duration, water flows, and levels that would degrade or eliminate the arroyo toad and its habitat. These actions can also lead to increased sedimentation and degradation in water quality to levels that are beyond the tolerances of the arroyo toad and provide habitat for