

exemption, if adopted, would not significantly affect the human environment. Regardless of the fuel economy of the exempted vehicles, they must pass the emissions standards which measure the amount of emissions per mile traveled. Thus, the quality of the air is not affected by the proposed exemptions and alternative standards. Further, since the exempted passenger automobiles cannot achieve better fuel economy than is proposed herein, granting these proposed exemptions would not affect the amount of fuel used.

Interested persons are invited to submit comments on the proposal. It is requested but not required that 10 copies be submitted.

All comments must not exceed 15 pages in length. (49 CFR 553.21). Necessary attachments may be appended to these submissions without regard to the 15 page limit. This limitation is intended to encourage commenters to detail their primary arguments in a concise fashion.

If a commenter wishes to submit certain information under a claim of confidentiality, three copies of the complete submission, including purportedly confidential business information, should be submitted to the Chief Counsel, NHTSA, at the street address given above, and seven copies from which the purportedly confidential business information has been deleted should be submitted to the Docket Section. A request for confidentiality should be accompanied by a cover letter setting forth the information specified in the agency's confidential business information regulation, 49 CFR part 512.

All comments received before the close of business on the comment closing date indicated above for the proposal will be considered, and will be available for examination in the docket at the above address both before and after that date. To the extent possible, comments filed after the closing date will also be considered. Comments received too late for consideration in regard to the final rule will be considered as suggestions for further rulemaking action. Comments on the proposal will be available for inspection in the docket. NHTSA will continue to file relevant information as it becomes available in the docket after the closing date, and it is recommended that interested persons continue to examine the docket for new material.

Those persons desiring to be notified upon receipt of their comments in the rules docket should enclose a self-addressed, stamped postcard in the envelope with their comments. Upon receiving the comments, the docket

supervisor will return the postcard by mail.

List of Subjects in 49 CFR Part 531

Energy conservation, Gasoline, Imports, Motor vehicles.

In consideration of the foregoing, it is proposed that 49 CFR part 531 be amended as follows:

PART 531—[AMENDED]

1. The authority citation for part 531 would continue to read as follows:

Authority: 15 U.S.C. 2002, delegation of authority at 49 CFR 1.50.

2. In § 531.5, the introductory text of paragraph (b) would be republished and paragraph (b)(2) would be revised to read as follows:

§ 531.5 Fuel economy standards.

* * * * *

(b) The following manufacturers shall comply with the standards indicated below for the specified model years:

* * * * *

(2) Rolls-Royce Motors, Inc.

Model year	Average fuel economy standard (miles per gallon)
1978	10.7
1979	10.8
1980	11.1
1981	10.7
1982	10.6
1983	9.9
1984	10.0
1985	10.0
1986	11.0
1987	11.2
1988	11.2
1989	11.2
1990	12.7
1991	12.7
1992	13.8
1993	13.8
1994	13.8
1995	14.6
1996	14.6

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Issued on: July 28, 1993.

Barry Felrice,
Associate Administrator for Rulemaking.
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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AB97

Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for the Arroyo Southwestern Toad

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Fish and Wildlife Service (Service) proposes to list the arroyo southwestern toad (*Bufo microscaphus californicus*) as an endangered species pursuant to the provisions of the Endangered Species Act of 1973, as amended (Act). The arroyo southwestern toad occurs exclusively in streams in southern California and northwestern Baja California, Mexico. The arroyo southwestern toad has been extirpated from an estimated 75 percent of its former range (Sweet 1992). Threats to the survival of this species include: habitat degradation, drought, predation, and small population sizes. Only 2 of the 15 extant populations south of Ventura are known to contain more than a dozen adults. Critical habitat is not being proposed at this time. If made final, this action would extend the Act's protection to the arroyo southwestern toad. The Service seeks information, data and comments from the public regarding this proposal.

DATES: Comments from all interested parties must be received by October 4, 1993. Public hearing requests must be received by September 17, 1993.

ADDRESSES: Comments and materials concerning this proposal should be sent to Field Supervisor, Ventura Field Office, U.S. Fish and Wildlife Service, 2140 Eastman Avenue, Suite 100, Ventura, California 93003 (telephone 805/644-1766). Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Ms. Cathy R. Brown at the Ventura Field Office (see ADDRESSES section).

SUPPLEMENTARY INFORMATION:

Background

The arroyo southwestern toad (*Bufo microscaphus californicus*) is a small toad in the family Bufonidae. This taxon was originally described as *Bufo cognatus californicus* from a specimen collected at Santa Paula, Ventura

County (Camp 1915 as cited in Price and Sullivan 1988). Camp's specimen was later shown to differ in several respects from *Bufo cognatus* and was afforded separate status as *Bufo californicus* (Myers 1930). In the following two decades, this toad was considered a subspecies of *Bufo compactilis* (Linsdale 1940) and of *B. woodhousei* (Shannon 1949). The currently accepted taxonomy of the arroyo southwestern toad as a subspecies of *Bufo microscaphus* is based on morphological similarities (Stebbins 1951, Price and Sullivan 1988). The arroyo southwestern toad (*B. m. californicus*) is geographically isolated from the Arizona southwestern toad (*B. m. microscaphus*) by the Mojave Desert. Work is now in progress to determine if the arroyo southwestern toad is genetically distinct at the species level (S. Sweet, Univ. of Calif., Santa Barbara, pers. comm., 1991).

The arroyo southwestern toad is a small (5–8 centimeters or 2–3 inches) light greenish gray or tan toad with warty skin and dark spots. Its underside is buff colored and often without spots. A light-colored stripe crosses the head and eyelids, and a light area usually occurs on each sacral hump and in the middle of the back. Its movement consists of hopping more often than walking. Its courtship vocalization is a high trill, usually lasting 8 to 10 seconds.

Arroyo southwestern toads were historically found along the length of drainages in southern California from San Luis Obispo County to San Diego County, but now they survive only in the headwaters as small isolated populations, primarily on National Forest lands (Sweet 1992). Urbanization and dam construction beginning in the early 1900's in southern California caused most of the extensive habitat degradation.

At least 90 percent of the known extant populations of arroyo southwestern toad occur in areas owned or managed by the Forest Service (Los Padres, Angeles, San Bernardino, and Cleveland National Forests) (Sweet 1992). Most other remaining populations occur on privately owned lands. Due mostly to habitat destruction, only five drainages remain where populations of this species may be viable. In 1990, only seven pairs of arroyo southwestern toads are known to have bred anywhere within the toad's range (Sweet 1992). Due to the isolation and the small sizes, each population is at great risk of extinction.

The arroyo southwestern toad is restricted to rivers that have shallow, gravelly pools adjacent to sandy

terraces. Breeding occurs on large streams with persistent water from late March until mid-June (Sweet 1989). Eggs are deposited and larvae develop in shallow pools with minimal current and little or no emergent vegetation and with sand or pea gravel substrate overlain with flocculent silt. After metamorphosis (June-July), the juvenile toads remain on the bordering gravel bars until the pool no longer persists (3 to 8 weeks, depending on site and year) (Sweet 1992). Juveniles and adults forage for insects on sandy stream terraces that have nearly complete closure of cottonwoods (*Populus* spp.), oaks (*Quercus* spp.), or willows (*Salix* spp.), and almost no grass and herbaceous cover at ground level. Adult toads excavate shallow burrows on the terraces where they shelter during the day when the surface is damp, or during longer intervals in the dry season (Sweet 1989).

Previous Federal Action

The arroyo southwestern toad was first included by the Service as a Category 2 candidate species in the September 18, 1985, Notice of Review of Vertebrate Wildlife (50 FR 37958). Category 2 applies to taxa for which information now in the possession of the Service indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat are not currently available to support proposed rules. The subspecies also was included as a Category 2 candidate in the January 6, 1989, and November 21, 1991, Animal Notices of Review (54 FR 554 and 56 FR 58804 respectively). Since the toad was first listed as a Category 2 candidate, the Service has obtained substantial information on the biological vulnerability and the environmental threats to elevate this species to Category 1. Category 1 species are those for which the Service possesses sufficient data to support proposals for listing. Most of the new information and analyses came from Samuel Sweet of the University of California, Santa Barbara; Mark Jennings of the University of Arizona; and staff of the Los Padres National Forest.

On January 12, 1993, the Service received a petition from Dr. Sam Sweet, Associate Professor of Biology at the University of California, Santa Barbara, and Dr. Mark Jennings, Research Associate in the Department of Herpetology, California Academy of Sciences, to list the arroyo southwestern toad as endangered (Sweet and Jennings 1992). Section 4(b)(3)(A) of the Endangered Species Act (Act), as

amended, requires to the maximum extent practicable, that the Secretary make a finding within 90 days of receipt of a petition, as to whether or not substantial information indicates the requested action may be warranted. If such a finding is made, the Service is directed to commence a review of the status of the species. Within 12 months of receipt of a petition found to present substantial information, the Secretary is further directed to make a finding that the petitioned action is warranted, not warranted, or warranted but precluded. In this instance the preparation of this proposed rule was nearly complete at the time the petition was received, and therefore alleviates the need to commence the status review that the Service would typically commence in response to a petition.

This proposed rule constitutes the Service's 12 month finding that listing of the arroyo southwestern toad is warranted. The petition, status surveys, and reference data (Sweet 1992) describe the arroyo southwestern toad as endangered due to past and continuing wide-ranging losses and degradation of riparian habitat within its historic range.

Summary of Factors Affecting the Species

Section 4 of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the arroyo southwestern toad (*Bufo microscaphus californicus*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Habitat destruction and alteration constitutes the most severe threat facing the arroyo southwestern toad. This toad is now confined to the headwaters of streams it occupied historically along their entire lengths. Of 475 river-kilometers (km)(295 river-miles) once known (from museum records circa 1915) to support populations of arroyo southwestern toads in the State, populations currently exist on only 120 km (73.5 miles); thus, arroyo southwestern toads have been extirpated from 75.1 percent of their former range in the United States (Sweet 1992).

The arroyo southwestern toad was formerly found on rivers with near-

perennial flow throughout southern California from San Luis Obispo County to San Diego County. It is believed to be extirpated in San Luis Obispo County (S. Sweet, pers. comm., 1991). Populations persist in Santa Barbara, Ventura, Los Angeles, and San Diego Counties. Recent sightings of scattered individuals have been reported from Orange, Riverside, San Bernardino, and southwest Imperial Counties.

Most of the remaining populations exist on Forest Service land. The Los Padres National Forest in Santa Barbara, Ventura, and Los Angeles Counties supports the majority of southern California's remaining intact large river systems, and probably maintains the only extant viable populations of arroyo southwestern toads. Sespe Creek in Ventura County has the largest known population (Sweet 1992). Other populations are found on the Sisquoc, Santa Ynez, and upper and lower Piru drainages (Sweet 1992). In San Diego County, arroyo southwestern toads are found on the Santa Margarita, Guejito, Sweetwater, Vallecito, San Luis Rey, Santa Ysabel, Witch, and Cottonwood Rivers (S. Sweet, pers. comm., 1991).

Several factors presently threaten the remaining 25 percent of the habitat of the arroyo southwestern toad including: (1) Short- and long-term changes in river hydrology, including construction of dams and water diversions; (2) alteration of riparian wetland habitats by agriculture and urbanization; (3) construction of roads; (4) site-specific damage by off-highway vehicle use; (5) development of campgrounds and other recreational activities; (6) over-grazing; and (7) mining activities.

Dam construction was responsible for the loss of approximately 40 percent of the estimated original range of the arroyo southwestern toad. Twenty-six large impoundments are currently located within the range of this species, inundating over 190 km² (120 miles) of suitable habitat. Additional areas have been identified as potential dam sites, and if constructed would destroy 25 percent of the current range (6–7 percent of the original range) of the arroyo southwestern toad (Sweet 1991a).

In addition to habitat loss through direct inundation, dams can have significant effects on habitat quality downstream. Artificial flow regulation disrupts the natural processes that produce the terrace and pool habitats required by arroyo southwestern toads. Unseasonal water releases may prevent arroyo southwestern toads from breeding due to habitat changes (Sweet 1992).

Another consequence of sustained unnatural perennial flows below dams

is an adverse effect on the habitat of this species by encouraging vegetative growth in a riparian corridor, which increases ground stability and hence confines and deepens the creek channel. Water temperatures are reduced below the temperatures needed for larval development (Sweet 1991a).

The arroyo southwestern toad is also sensitive to stream diversions as they cause the riparian areas to dry. Water diversions that alter normal flows have degraded habitats and adversely affected arroyo southwestern toads by leading to: (1) The early drying of breeding pools, causing breeding failures or loss of the larval population; (2) restriction of the period essential for rapid growth when newly-metamorphosed toads can forage on damp gravel bars; and (3) loss of damp subsurface soil, which may result in high adult mortality during late summer and early fall (Sweet 1992).

Development projects in riparian wetlands have caused permanent losses of riparian habitats, and are the most conspicuous factor in the decline of the arroyo southwestern toad (S. Sweet, pers. comm., 1991). Agriculture and urbanization have already destroyed much of the suitable arroyo southwestern toad habitat south of the Santa Clara River in Ventura County (S. Sweet, pers. comm., 1991). Stream terraces have been converted to farming, road corridors, and residential and commercial uses, while the streams themselves have been channelized for flood control. Large stretches of riparian corridor habitat has also been degraded or destroyed by cattle and feral pigs (S. Sweet, pers. comm., 1991).

Recreational activities in riparian wetlands have had substantial negative effects to arroyo southwestern toad habitat and individuals, as discussed in Factor E. Off-highway vehicles cause extensive damage to the shallow pools in which arroyo southwestern toads breed (Sweet 1992).

Streamside campgrounds in southern California National Forests have frequently been located adjacent to arroyo southwestern toad habitat (Sweet 1992). In the Los Padres National Forest, each of the three campgrounds on Piru and Sespe Creeks were developed on terraces used by arroyo southwestern toads, within 50–100 meters (150–300 feet) of their breeding pools. On the upper Santa Ynez River, also on Los Padres National Forest, three of four campgrounds are also located in arroyo southwestern toad habitat (Sweet 1991a, 1991b). The placement of campgrounds is similar in the Cleveland National Forest in San Diego County.

The use of heavy equipment in yearly reconstruction of roads and stream

crossings in the National Forests has had significant and repeated impacts to arroyo southwestern toads and toad habitat. Maintenance of the road to Ogilvy Ranch, a private inholding in the Los Padres National Forest, is likely responsible for a depressed population of arroyo southwestern toads on Mono Creek. The Ogilvy Ranch road makes 18 crossings of Mono Creek, many directly through or near arroyo southwestern toad breeding pools. In summer 1992, the Los Padres National Forest declined to open the Ogilvy Ranch road in order to protect populations of arroyo southwestern toads and other candidate amphibians and reptiles. However, the road was opened with a bulldozer in the fall. As juvenile arroyo southwestern toads were likely burrowed into the soft sand adjacent to the creek, grading the road up the creek killed individuals, and destroyed habitat. Regular maintenance of roads in the Los Padres National Forest negatively affects arroyo southwestern toad individuals and toad habitat on the Santa Ynez River, Piru and Sespe Creeks, as well.

An additional threat to this species is mining activities. Recreational suction dredging for gold adversely affects toad habitat and individuals. Dredging destroys breeding pools used by arroyo southwestern toads and causes excessive siltation downstream, which asphyxiates eggs and small larvae. For example, during the Memorial Day weekend of 1991, four small dredges operating on Piru Creek (of Los Padres National Forest) produced sedimentation visible more than 1 kilometer (0.6 mile) downstream, and adversely affected 40,000–60,000 arroyo southwestern toad larvae. Subsequent surveys revealed nearly total destruction of the species in this stream section; fewer than 100 larvae survived, and only 4 juvenile toads were located (Sweet 1992).

Several rivers in the Los Padres National Forest were recently temporarily closed to gold mining, and it is uncertain whether the ban will be made permanent. In December 1992, a group of miners challenged the Forest Service's authority to close Piru Creek to mining. These individuals practiced various methods of gold extraction until cited by the Forest Service. It seems likely that future challenges will occur and, if successful, will threaten the population of arroyo southwestern toads on Piru Creek.

B. Overutilization for commercial, recreational, scientific, or educational purposes. Populations of the arroyo southwestern toad are becoming so small and confined that even limited taking by campers, recreationists, and

scientific researchers could adversely affect this species' viability. These toads are threatened by children near the campgrounds as it is commonplace for children to capture and keep organisms while at play. No data exists on the extent of such collection activities, but it is very likely that it has occurred or is occurring.

C. Disease or predation. Over the past 20 years, at least 60 species of fishes have been introduced to the western U.S. states, 59 percent of which are predatory (Hayes and Jennings 1986; Jennings 1988). The introduction of exotic predators to southern California waters has been facilitated by the interbasin transport of water (e.g., California Aqueduct). Introduced predators had substantial impacts on the sizes of extant populations of arroyo southwestern toads, and may have contributed to regional extinctions (Hayes and Jennings 1986).

Virtually all rivers that contain or once contained arroyo southwestern toads support populations of introduced predatory fish, such as green sunfish (*Lepomis cyanellus*), largemouth bass (*Micropterus salmoides*), mosquitofish (*Gambusia affinis*), black bullhead (*Ictalurus nebulosus*), arroyo chub (*Gila orcutti*), prickly sculpin (*Cottus asper*), stocked trout (*Oncorhynchus mykiss*), oriental gobies (*Tridentiger* sp.), and red shiners (*Neotropis lutrensis*) (Sweet 1992). All of these introduced fish prey on tadpoles, and have been observed inducing high arroyo southwestern toad larval mortality in breeding pools on the Piru, Sespe, and Santa Ynez drainages, and it is likely to have occurred elsewhere (Sweet 1992).

Most streams with populations of arroyo southwestern toads also have populations of introduced bullfrogs (*Rana catesbeiana*). Adult bullfrogs are highly predatory and are believed to prey on adult arroyo southwestern toads (Sweet 1992). Artificially maintained perennial flows below dams provide permanent water and enhance the habitat for bullfrogs to the detriment of arroyo southwestern toads.

D. The inadequacy of existing regulatory mechanisms. The U.S. Army Corps of Engineers (Corps), responsible for administering section 404 of the Federal Water Pollution Control Act Amendments of 1972 (Clean Water Act), has authority to regulate the placement of dredged and fill materials into waters of the United States. Individual actions under nationwide permits undergo minimal outside agency review. Individual permits, which are subject to more extensive review, are required for projects that affect greater than 10 acres.

The Corps cannot issue a nationwide or individual permit where a federally listed species may be affected, without first consulting with the Service under section 7 of the Endangered Species Act. The Service, as part of the section 404 review process, provides comments on both pre-discharge notices for nationwide permits and public notices for individual permits. The Service's comments are only advisory, although procedures exist for elevation when disagreements between the two agencies arise.

Most construction projects in or near arroyo southwestern toad habitat would require a permit from the Corps pursuant to section 404 of the Clean Water Act. In practice, the Corps' actions under section 404 has not adequately protected arroyo southwestern toads, as the Corps has rarely required individual permits where impacts to the toad would occur. The Corps has either approved the projects under nationwide permits, or there have been repeated unauthorized activities. Federal listing of this species would ensure greater consideration of the effects of permitted actions during the review process, as well as provide the protection of section 7 of the Act.

The National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) require an intensive environmental review of projects that may adversely affect Federal candidate species. However, project proponents are not required to avoid impacts to these species, and proposed mitigation measures are frequently not adequately implemented. As with section 404 permits, the Service's comments through these environmental review processes are only advisory.

Forest Service policy as described in the National Forest Management Act states "Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area" (36 CFR 219.19). The Los Padres National Forest recently funded a study on the ecology of arroyo southwestern toads (Sweet 1992). The results of this study will be used to develop sound management recommendations for protection of arroyo southwestern toads on the Forest. Despite this positive step, the southern California National Forests have not been able to successfully implement the protection of the arroyo southwestern toad. Activities such as road maintenance, off-highway vehicle use, and the issuance of special use permits for dam and water diversion construction have contributed to the decline of the arroyo southwestern toad.

Alteration of the natural intermittent flow regimes by dams has had significant adverse impacts to arroyo southwestern toads. The State Department of Water Resources, which operates Pyramid Dam on Piru Creek in the Los Padres and Angeles National Forests, frequently discharges excess flows from the reservoir with inadequate consideration by the State for downstream consequences to fish and wildlife. The depressed population of arroyo southwestern toads on lower Piru Creek below Pyramid Dam is probably a result of unscheduled timing of water releases since the 1970's (Sweet 1992). Although the dam is located on National Forest land and each release or each release program should be subject to a Forest Service special use permit, inadequate protection has been given by the Forest Service to aquatic and riparian-dependent wildlife below the dam.

Although the arroyo southwestern toad is classified as a "Species of Special Concern" by the State of California (Steinhart 1990) and may not be taken within a scientific collecting permit, this designation provides no special, legally mandated protection of the species and its habitat.

E. Other natural or manmade factors affecting its continued existence. Several other factors have also contributed to the decline of the species including drought, fire, and light and noise pollution. Additionally there has been direct mortality of the toads due to road construction and maintenance, water inundation or drainage from dams and diversions, off-highway vehicle use, cattle and pig trampling, mining, and recreational activities.

By far, the most significant natural factor adversely affecting the arroyo southwestern toad is drought, and resultant deterioration of riparian habitats. Southern California recently experienced 5 consecutive years of lower than average rainfall. These drought conditions, when combined with human induced water reductions (i.e., diversions of water from streams), have degraded riparian ecosystems and have created extremely stressful conditions for most aquatic species.

Drought also affects arroyo southwestern toads in another manner. Female arroyo southwestern toads must feed for at least 2 months in order to develop the fat reserves needed to produce a clutch of eggs (Sweet 1992). In drought years, females may find insufficient insect prey to produce eggs before males cease their courtship behavior of calling, resulting in no reproduction in that year. The extremely low reproduction of 1990 was likely due

to 4 years of severe drought (Sweet 1992).

Periodic fires may adversely affect arroyo southwestern toads by causing direct mortality, destroying streamside vegetation, or eliminating vegetation that sustains the watershed. Recent natural and human-induced wildfires had devastating effects on populations of arroyo southwestern toads. The 1991 Lions Fire on upper Sespe Creek in the Los Padres National Forest destroyed habitat containing the largest known extant population of arroyo southwestern toads, including 15 known breeding pools and over 50 percent of the known adult population on the Sespe drainage (Sweet 1991c). Even more significantly, the wildfire heavily affected the only section of river where these toads were known to reproduce successfully in 1989, 1990, and 1991 (S. Sweet, pers. comm., 1991). It is likely that populations of adults or juvenile toads concentrated in areas sustaining high-intensity burns were decimated due to the subsequent sedimentation that occurred in the drainages (Sweet 1991c). Following the effects of the preceding series of drought years, the impact of this fire has been intense and will likely be long-term.

The vocalizations of male toads are crucial to the breeding success of this species, as their calls are the key factor to finding mates. Light and noise pollution from adjacent developments or campgrounds may also reduce arroyo southwestern toad reproductive success by disrupting the vocalization behavior of males during the breeding season. Generally, the local population of arroyo southwestern toads declines as campground use increases (Sweet 1992).

Unseasonal water releases from dams may prevent arroyo southwestern toads from breeding altogether, as discussed in Factor A, or may wash away eggs and larvae if releases are made after breeding has occurred (Sweet 1992). Service advisory input may be sought by the California Department of Water Resources prior to scheduled water releases to avoid negative impacts to the toad. However, unscheduled releases do occur, whereby the Department of Water Resources does not seek advisory input from the Service. For example, large unscheduled releases from Pyramid Lake in May 1991 virtually eliminated all reproduction by arroyo southwestern toads below the dam in Piru Creek, in what would have been the best year for reproduction following 5 years of drought (Sweet 1992). A proposal to convey State Water Project water from Pyramid Lake to Piru Lake via Piru Creek would also threaten arroyo southwestern toad survival on Piru

Creek if releases substantially alter natural flow regimes.

Grazing brings another potential source of mortality to this species. Horses and cattle graze in riparian areas and may trample eggs and larvae of arroyo southwestern toads (S. Sweet, pers. comm., 1991).

Off-highway vehicle use is believed to be the primary factor responsible for the decimation of the Mojave River population of the arroyo southwestern toad (Jennings 1991). On Memorial Day weekend in 1991, a fence protecting a breeding pool on Piru Creek was cut, and off-highway vehicles had access to the creek. The disturbance destroyed a small sand bar that maintained a shallow pool, resulting in the loss of 12,000 to 16,000 arroyo southwestern tadpoles (Sweet 1992).

Recreational use of campgrounds is heaviest in early summer, when arroyo southwestern toad larvae and juveniles are present and most vulnerable. As the young toads are diurnal, immobile, and live on the sand bars, they are often crushed. Recreational use has resulted in the alteration of stream and breeding pool morphology, and trampling of juvenile toads (Sweet 1992). Adult arroyo southwestern toads, which forage in open areas in the campgrounds, are frequently killed on campground roads at night (Sweet 1992).

Habitat loss, high mortality, and low reproduction from all of the sources discussed above also result in the fragmentation of surviving populations into isolated subpopulations. While these subpopulations may continue to survive and reproduce over the short term, their long-term survival is not secure, because little opportunity exists for natural dispersal and recolonization following local extirpations (Sweet 1991a). Habitat fragmentation increases the probability of local extirpation due to stochastic events, and also likely results in reduction of genetic variability within the small, isolated subpopulations.

The recent years of extremely low reproductive success have likely been a bottleneck in the remaining populations of arroyo southwestern toads, in which few, if any, individuals will reach sexual maturity until 1995 (Sweet 1992). As mature adults age and die in the next 2 years, no recruitment into the breeding population is likely, and numerous local extinctions of already small populations are probable. As individuals may not survive and reproduce due to traumatic events such as drought or road maintenance, for example, and as the population numbers are low and the range is

restricted, such events could cause the extinction of the species.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by the arroyo southwestern toad in determining to propose this rule. The arroyo southwestern toad has been extirpated from a substantial portion of its historic range. Virtually all remaining populations are small, and face a variety of immediate threats to their continued viability. This toad lives in highly specialized habitats that have been and will continue to be targeted for development and degradation by human activities, and is extremely vulnerable to habitat modification and water quality changes. Based on this evaluation, the preferred action is to list the arroyo southwestern toad as endangered. For the reasons discussed below, critical habitat is not being proposed at this time.

Critical Habitat

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary propose critical habitat at the time a species is proposed to be endangered or threatened. The Service finds that designation of critical habitat is not presently prudent for the arroyo southwestern toad.

As discussed under Factor B in the "Summary of Factors Affecting the Species," the arroyo southwestern toad is threatened by taking, an activity difficult to control. Remaining populations of the arroyo southwestern toad are small and geographically restricted, so that they are now vulnerable to unrestricted collection. Publication of specific localities, which would be required in proposing critical habitat, would reveal precise locality data and thereby make the species more vulnerable to additional collection and acts of vandalism, and increase the difficulties of enforcement.

The principal landowner, the Forest Service, has been notified of the locations and importance of protecting this species' habitat. Protection of this species' habitat will be addressed in the recovery process and through the section 7 consultation process. Therefore it would not now be prudent to determine the critical habitat of the arroyo southwestern toad.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered

Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain activities. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies 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 being 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 informally with the Service 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. If a species is subsequently listed, 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 must enter into formal consultation with the Service.

The Forest Service (Department of Agriculture) and the Army Corps of Engineers (Department of Defense) are the main Federal agencies that will be required to protect this species if it is listed. Federal agencies must confer with the Service, as described in section 7 of the Act, on any project that might jeopardize the continued existence of this proposed species. The Forest Service harbors the majority of known arroyo southwestern toad populations; hence, authorization of Forest Service actions within the species' habitat may be affected. Forest Service activities, such as the construction and maintenance of roads, and the issuance of special use permits for dam and bridge construction, mining, and water diversion projects would be subject to the Act's section 7 requirements. Army Corps of Engineers activities or issuances of permits subject to section 404 of the Clean Water Act would be subject to the Endangered Species Act section 7 requirements. Any Federal actions that are subject to environmental

review under the National Environmental Policy Act may be subject to the requirements of section 7 of the Act.

The Act and implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or attempt any such conduct), import or export, transport in interstate or foreign commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed wildlife species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

The Act and 50 CFR 17.22 and 17.23 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered wildlife species under certain circumstances. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, for incidental take in connection with otherwise lawful activities, and economic hardship under certain circumstances. Requests for copies of the regulations on listed wildlife and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, Room 432, 4401 North Fairfax Drive, Arlington, Virginia 22203-3507 (703/358-2104).

Public Comments Solicited

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

- (1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to this species;
- (2) The location of any additional populations of this species and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;
- (3) Additional information concerning the range, distribution, and population size of this species; and

(4) Current or planned activities in the subject area and their possible impacts on this species.

Any final decision on this proposal will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be received within 45 days of the date of publication of the proposal. Such requests must be made in writing and addressed to the Field Supervisor at the Ventura Field Office (see ADDRESSES section).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

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for additional research. Unpublished report. 23 pp.
 Sweet, S. 1991a. Reasons for the decline of *Bufo microscaphus californicus*. Unpublished report. 5 pp.
 Sweet, S. 1991b. Biological issues underlying the need to maintain natural flow regimes in the Piru Creek drainage. Unpublished report. 6 pp.
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 Sweet, S. 1992. Initial report on the ecology and status of the arroyo toad (*Bufo microscaphus californicus*) on the Los Padres National Forest of southern California, with management recommendations. Contract report to USDA Forest Service, Los Padres National Forest. 186 pp.

Sweet, S. and M. Jennings. 1992. Letter to the U.S. Fish and Wildlife Service, December 30, 1992: Petition to list the arroyo southwestern toad as an endangered species. 4 pp. + appendix.

Author

The primary author of this proposed rule is Cathy R. Brown of the Ventura Field Office (see ADDRESSES section).

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, it is hereby proposed to amend part 17, subchapter B of chapter

I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

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

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

2. It is proposed to amend § 17.11(h) by adding the following, in alphabetical order under Amphibians, to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

(i) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common Name	Scientific Name						
Amphibians							
Toad, arroyo southwestern.	<i>Bufo microscaphus californicus</i> .	U.S.A. (CA); Mexico	NA	E		NA	NA

Dated: June 21, 1993
 Richard N. Smith,
 Acting Director, Fish and Wildlife Service.
 [FR Doc. 93-18434 Filed 8-2-93; 8:45 am]
 BILLING CODE 3410-55-P

50 CFR Part 17
FW 1018-AB94

Endangered and Threatened Wildlife and Plants; Notice of Public Hearings on Proposal To List the Kootenai River Population of the White Sturgeon as Endangered

AGENCY: Fish and Wildlife Service, Interior.
ACTION: Proposed rule; notice of public hearings.

SUMMARY: The U.S. Fish and Wildlife Service (Service), under the Endangered Species Act of 1973, as amended (Act), gives notice that three public hearings will be held on the proposal to list the Kootenai River population of the white sturgeon (*Acipenser transmontanus*) as endangered. This fish is found in the Kootenai River in Idaho, Montana, and British Columbia, Canada. The Service will receive oral testimony or written comments at these hearings.

DATES: Three public hearings will be held: from 5 to 8 p.m. on Tuesday, August 24, 1993, in Bonners Ferry,

Idaho; from 5 to 8 p.m. on Wednesday, August 25, 1993, in Libby, Montana; and from 1 to 4 p.m. and 6 to 8 p.m. on August 26, 1993, in Sand Point, Idaho. Comments from all interested parties must be received by November 4, 1993.

ADDRESSES: The public hearings will be held at the following locations:

- Tuesday, August 24, 1993—Kootenai River Inn, Kootenai River Plaza, Bonners Ferry, Idaho
- Wednesday, August 25, 1993—Memorial Gymnasium, 101 East Lincoln Boulevard, Libby, Montana
- Thursday, August 26, 1993—Schweitzer Mountain Resort, Headquarters Day Lodge Caribou Room, 1000 Schweitzer Mountain Road, Sand Point, Idaho

Written comments and materials may be submitted at the hearings or may be sent directly to Mr. Charles Lobdell, Field Supervisor, U.S. Fish and Wildlife Service, Boise Field Office, 4696 Overland Road, room 576, Boise, Idaho, 83705. Comments and materials received will be available for public inspection during normal business hours, by appointment, at the above address.

FOR FURTHER INFORMATION CONTACT: Charles H. Lobdell, Field Supervisor, at the above address or (208) 334-1931

SUPPLEMENTARY INFORMATION:

Background

The Kootenai River population of the white sturgeon (*Acipenser transmontanus*) is restricted to approximately 168 miles (270 kilometers) of the Kootenai river, in Idaho, Montana, and British Columbia, Canada, primarily upstream from Cora Linn Dam at the outflow from Kootenay Lake, British Columbia. A natural barrier at Bonnington Falls downstream of Kootenay Lake has isolated the Kootenai River sturgeon from other white sturgeon populations in the Columbia River basin. The free-flowing river habitat for this fish has been adversely affected from development of the Kootenai River basin. Construction of Libby Dam for hydropower and flood control has reduced river flows critical to successful reproduction during the May to July sturgeon spawning season, and reduces the availability of nutrients in the river system. The Kootenai River population of white sturgeon has declined to an estimated 880 individuals, with approximately 80 percent of the sturgeon over 20 years old. In addition to the lack of recruitment of juveniles into the population, this fish is threatened by disease and poor water quality.

On July 7, 1993, the Kootenai River population of the white sturgeon was

proposed for listing as an endangered species (58 FR 36379). Section 4(b)(5)(E) of the Act requires that a public hearing be held, if requested within 45 days of the publication of a proposed rule. In anticipation of requests for a hearing on the proposal, the Service announced in the proposed rule that a public hearing would be held on August 26, 1993, in Sand Point, Idaho. Because of the level of interest in this proposed action the Service has decided to schedule two additional hearings to receive comments from the public. The three public hearings will be held at the following locations:

Tuesday, August 24, 1993, from 5 to 8 p.m. at the Kootenai River Inn, Kootenai River Plaza, Bonners Ferry, Idaho

Wednesday, August 25, 1993, from 5 to 8 p.m. to the Memorial Gymnasium, 101 East Lincoln Boulevard, Libby, Montana

Thursday, August 26, 1993, from 1 to 4 p.m. and 6 to 8 p.m. at the Schweitzer Mountain Resort, Headquarters Day Lodge Caribou

Room, 10000 Schweitzer Mountain Road, Sand Point, Idaho

Those parties wishing to make statements for the record should have available a copy of their statements to be presented to the Service at the start of the hearing. Time limits may be placed on oral statements to accommodate many people wishing to testify. Written comments or materials presented at the hearing or mailed to the Service may be of any length. Written comments will be given the same weight as oral comments. Written comments may be submitted at the hearing or mailed to the U.S. Fish and Wildlife Service, Boise Field Office (see ADDRESSES section). Comments must be received by November 4, 1993.

Author

The primary author of this notice is Leslie J. Propp, U.S. Fish and Wildlife Service, Portland Regional Office, 911

NE. 11th Avenue, Portland, Oregon 97232 (telephone 503/231-6131 or 206/753-9440).

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Public Law 99-625, 100 Stat. 3500; unless otherwise noted).

List of Subjects in 50 CFR Part 17

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

Dated: July 27, 1993.

William E. Martin,

Acting Regional Director, Region 1, U.S. Fish and Wildlife Service.

[FR Doc. 93-18418 Filed 8-2-93; 8:45 am]

BILLING CODE 4310-55-M