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Dated: November 30, 1994.

Ida M. Ustad,

Associate Administrator for Acquisition Policy.

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AB97

253-94

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

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Fish and Wildlife Service (Service) determines endangered status for the arroyo southwestern toad (*Bufo microscaphus californicus*) pursuant to the provisions of the Endangered Species Act of 1973, as amended (Act). The arroyo toad occurs exclusively in streams in southern California and northwestern Baja California, Mexico. The arroyo toad has been extirpated from an estimated 75 percent of its former range. Threats to the survival of this species include: habitat degradation, predation, and small population sizes. Only 6 of the 22 extant populations south of Ventura are known to contain more than a dozen adults. This rule implements the protection and recovery provisions provided by the Act for the arroyo southwestern toad.

EFFECTIVE DATE: January 17, 1995.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Ventura Field Office, U.S. Fish and Wildlife Service, 2140 Eastman Avenue, Suite 100, Ventura, California 93003.

FOR FURTHER INFORMATION CONTACT: Ms. Cathy R. Brown at the above address (805/644-1766).

SUPPLEMENTARY INFORMATION:

Background

The arroyo 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). Camp's specimen was later shown to differ in several respects from

Bufo cognatus and was afforded specific 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 toad as a subspecies of *Bufo microscaphus*, the southwestern toad, is based on morphological similarities (Stebbins 1951, Price and Sullivan 1988). The arroyo toad (*B. microscaphus californicus*) is geographically isolated from the Arizona toad (*B. microscaphus microscaphus*) by the Mojave and Colorado Deserts. Work is now in progress to determine if the arroyo toad is genetically distinct at the species level (S. Sweet, Univ. of Calif., Santa Barbara, pers. comm., 1991).

The arroyo toad is a small (5 to 8 centimeters (cm) (2 to 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 rather than walking. Its courtship vocalization is a high trill, usually lasting 8 to 10 seconds.

The arroyo 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 or 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).

Arroyo 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 primarily in the headwaters as small isolated populations (Sweet 1992, J. Stephenson, Cleveland National Forest, *in litt.*, 1993). Urbanization and dam construction beginning in the early 1900's in

southern California caused most of the extensive habitat degradation. The species was formerly distributed southward along the northwestern coastal region of Baja California, Mexico, to the vicinity of San Quintin (ca. 30.5° N Lat.).

Most remaining populations in the United States occur on privately owned lands, primarily within or adjacent to the Cleveland National Forest. Less than 50 percent of the known extant populations of arroyo toad occur in areas owned or managed by the Forest Service (Los Padres, San Bernardino, and Cleveland National Forests) (Sweet 1992, J. Stephenson, *in litt.*, 1993). Due mostly to habitat destruction, only eight drainages remain where populations of this species may be viable (S. Sweet, pers. comm. 1993; J. Stephenson, *in litt.*, 1993). In 1990, only seven pairs of arroyo toads were known to have bred anywhere within the toad's range (Sweet 1992). Due to the isolation and the small sizes, almost all populations are at great risk of extinction.

Previous Federal Action

The arroyo 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). After publication of the most recent Notice of Review, the Service 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 Dr. Samuel Sweet, University of California, Santa Barbara; Dr. Mark Jennings, California Academy of Sciences; and staff of the Los Padres National Forest.

On December 30, 1992, (not January 12, 1993, as indicated in proposed rule (58 FR 41232)) the Service received a petition from Dr. Sweet and Dr. Mark Jennings to list the arroyo toad as endangered (Sweet and Jennings 1992, Section 4(b)(3)(A) of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), 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 the proposed rule was nearly complete at the time the petition was received, thus alleviating the need to commence the status review that the Service would typically start in response to a petition.

On August 3, 1993, the Service published a proposed rule in the *Federal Register* (58 FR 41231) to list the arroyo toad as endangered. That proposal was based primarily on information provided by the petitioners, published literature, and contacts with various herpetologists.

Summary of Comments and Recommendations

In the August 3, 1993, proposed rule and associated notifications all interested parties were requested to submit factual reports or information relevant to a final decision on the listing proposal. Appropriate state agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Notice of the publication of the proposal was published in the *Santa Barbara News Press*, *Los Angeles Times*, and the *San Diego Union Tribune*. Requests for a public hearing were received from four parties: the California Cattlemen's Association, the Newhall Land and Farming Company, Public Lands for the People, and United Water Conservation District. On September 9, 1993, the Service published a notice in the *Federal Register* announcing the hearing and extending the comment period until October 15, 1993 (58 FR 47428). The Service conducted a hearing on October 4, 1993, at the Minerals Management Service in Camarillo, California. Thirteen parties presented testimony.

During the comment period, the Service received written and oral comments from 27 parties, including those of three Federal agencies, three State agencies, and 19 individuals or groups. The Santa Monica Mountains National Recreation Area (National Park Service), U.S. Forest Service, the U.S. National Biological Survey's National Ecology Research Center, Southwestern

Herpetologists Society, Keep the Sespe Wild Committee, and the Environmental Defense Center were some of the eight commenters expressing support for the listing proposal. Sixteen commenters opposed the listing of the arroyo toad. Eight were neutral on the proposal but offered clarification or additional information. Written and oral statements obtained during the public hearing and comment period are combined in the following discussion. In addition, information submitted by the commenters, including updated locality and population data from the Cleveland, San Bernardino, and Los Padres National Forests, has been incorporated into this final rule. Opposing comments and other comments questioning the rule have been organized into specific issues. These issues and the Service's response to each are summarized as follows:

Issue 1: One of the petitioners noted that the common name for the species, *Bufo microscaphus*, is southwestern toad, whereas the common name of the subspecies, *B. microscaphus californicus*, is arroyo toad. In the proposed rule the Service referred to *B. microscaphus californicus* as the arroyo southwestern toad.

Service Response: The Service acknowledges the nomenclatural confusion in the proposed rule. The Service prefers to utilize common names of subspecies that also reflect the species to which it is presently assigned; such usage allows the general public to find information on both the full species and the listed subspecies. The common name of the subspecies appears as the "arroyo southwestern toad" in the rule but is usually referred to as the "arroyo toad" in the preamble text.

Issue 2: Several commenters believed that there was insufficient scientific evidence to list the arroyo toad; that all the data on the species came from a single "biased" source; and that more studies should be conducted before a final decision on listing could be made.

Service Response: In researching the proposed rule, the Service reviewed data and consulted publications from many sources, including herpetologists at academic institutions, staff biologists with the U.S. Forest Service, research biologists within the Fish and Wildlife Service, and museum records. It is the consensus of the herpetologists that contacted the Service that the arroyo toad is one of the most threatened amphibians in southern California (see Issue 7). A recent report prepared under contract to the California Department of Fish and Game stated that the combination of threats "probably make

this taxon the most vulnerable in California" (Jennings and Hayes 1992). In regard to recommendations that more studies are needed before listing the arroyo toad, section 4 of the Act states that a determination to list must be based on the best scientific and commercial data available after conducting a review of the status of the species. The Service completed such a review of the toad in preparing the proposed rule and prior to the receipt of the petition. The best scientific and commercial data now available supports listing the arroyo toad as endangered.

Issue 3: Several commenters believed that the proposed rule did not present any scientific evidence for the adverse effects of mining, recreation, or grazing on arroyo toads.

Service Response: The proposed rule presented numerous examples of habitat degradation caused by mining, recreation, and grazing (see Factor A in the proposed rule and this final rule). As stated in the proposed rule, mining, recreation, and grazing have all been observed to alter microhabitat characteristics essential to successful breeding of arroyo toads. Recreation and grazing are also implicated in mortality of adult and juvenile arroyo toads. As directed by the Act, the Service used the best available scientific and commercial data in proposing to list the arroyo toad. These data demonstrate the potential negative effects of these activities. Although the commenters do not agree with the conclusions in the proposed rule, they did not submit any information to disprove the Service's analysis of the effects of mining, grazing, or recreation on arroyo toad populations.

Issue 4: Several commenters stated that the listing of the arroyo toad should not proceed until the Service conducts the appropriate National Environmental Policy Act review.

Service Response: The Service need not prepare environmental assessments or environmental impact statements pursuant to the National Environmental Policy Act (NEPA) for reasons outlined in the *Federal Register* on October 25, 1983 (48 FR 49244). Basically, the listing of a species is exempt as a matter of law for NEPA review. Listing decisions are based upon biological, not sociological or economical, considerations. This view has been upheld in at least one court case (*Pacific Legal Foundation v. Andrus*, 657 F. 2d 829 (1981)).

Issue 5: One commenter was puzzled by the Service's statement in the proposed rule that "little opportunity exists for natural dispersal and recolonization following local

extirpations," because volunteers of an off-road vehicle association had recently offered to relocate toads into formerly occupied habitats.

Service Response: The Service's statement referred to the effects of habitat fragmentation on the viability of arroyo toad populations and their ability to disperse naturally to reoccupy former habitat. The Service appreciates the offer for volunteer help and will consider such offer in the recovery of the species. The reintroduction of arroyo toads into habitats from which small, isolated populations had become extirpated would likely require frequent, intensive management efforts. In most cases, such efforts would be unsuccessful, especially if the arroyo toads were placed in degraded areas. Section 2 of the Endangered Species Act clearly states that the purpose of the Act is to provide a means whereby the natural ecosystems upon which endangered and threatened species depend may be conserved. However, such intensive management actions may play a role in endangered species recovery, in addition to habitat protection.

Issue 6: One commenter stated that failure to designate critical habitat "hampers the efforts of landowners and other interested parties to locate additional populations of this species, possibly precluding the need for protection under the act."

Service Response: Designation of critical habitat for the arroyo toad would not be prudent at this time. The arroyo toad is threatened by taking, an activity difficult to control. Remaining populations of the arroyo 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. Designation of critical habitat first focuses on known occupied habitat, which would not aid in locating additional populations.

Issue 7: One commenter believed that the Service was not justified in keeping habitat and population data confidential, because this practice "does not allow for an independent assessment of the vulnerability of the species and the critical need for listing."

Service Response: The proposed and final rules contain a complete summary of the data available to the Service regarding the status of the arroyo toad. Habitat and population data have been available for review (see "Addresses"

section above). As discussed above (Issues 2 and 6), these data have been reviewed by the scientific community and there is a consensus among herpetologists that the arroyo toad is one of the most threatened amphibians in California.

Issue 8: Several commenters referred to the economic impacts of listing the arroyo toad and recommended that the Service not proceed with listing the species until the present and future economic impacts of listing had been considered.

Service Response: Section 4 of the Act directs the Service to consider only the best scientific and commercial data available when making a decision regarding the appropriateness of listing a species as endangered or threatened; economic impacts are not considered in this evaluation. Economic factors are only to be considered in the designation of critical habitat.

Issue 9: Several commenters contended that listing constitutes taking of private property by the Federal government without compensation to the landowner.

Service Response: Listing of the arroyo toad under the Endangered Species Act will trigger the protective measures of section 9 of the Act, prohibiting the take of this species. In addition, the Act requires that Federal agencies insure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species, or destroy or adversely modify its critical habitat, if any is designated. Any activity on private land that requires Federal involvement (such as a section 404 permit under the Clean Water Act) that may affect this species would have to be reviewed by the Service to insure that the continued existence of the species would not be jeopardized.

Listing under the Act does not imply that private land would be confiscated or taken without just compensation. Recovery planning for the arroyo toad may include recommendations for land acquisition or easements involving private landowners. These efforts only would be undertaken with the cooperation of the landowner. In the majority of cases, private landowners are not precluded from using their land in the manner originally intended.

Issue 10: One commenter requested that the proposed listing of the arroyo toad be delayed until the Service could investigate the possibility of implementing an arroyo toad hatchery and transplanting program.

Service Response: Section 2 of the Endangered Species Act states that the purpose of the Act is to provide a means

whereby the ecosystems upon which endangered and threatened species depend may be conserved. Captive breeding programs, such as the hatchery proposed by the commenter, may be considered in planning for the recovery of some listed species but are not a substitute for recovery of listed species in the wild. See the Service's response to Issue 5 above.

Issue 11: One commenter asked if the arroyo toad's decline is tied to the worldwide amphibian decline.

Service Response: The Endangered Species Act permits the listing of species that have become rare due to both natural and manmade factors. The decline of the arroyo toad may be due in part to the as-yet-unknown factors causing the decline of amphibians throughout the world. As summarized in the proposed rule, however, habitat degradation, predation by introduced species, and the inadequacy of existing regulatory mechanisms have played a significant role in the arroyo toad's decline.

Issue 12: One commenter stated that the decision to list the arroyo toad should be withheld until the genetic studies prove that the arroyo toad is a distinct species.

Service Response: Section 3(15) of the Act states that "(T)he term 'species' includes any subspecies of fish or wildlife or plants . . . which interbreeds when mature." Therefore, for the purposes of the Act, this subspecies is treated as a species. Determination of full species status is not necessary to proceed with listing the arroyo toad.

Issue 13: One commenter questioned the Service's preparation of a proposed rule prior to receipt of a petition. The commenter suggested that this indicated impropriety, and an unacceptably close relationship with the petitioners, on the part of the Service.

Service Response: Section 4(b) of the Act establishes two methods by which a species may be considered for listing. Section 4(b)(1)(A) describes the process followed by the Service when the Service initiates a listing proposal. Section 4(b)(3)(A) describes the process of initiating a listing action in response to a petition. In each case, the Service conducts a status review of the species. A status review takes into account the best available scientific and commercial information, including published reports and consultations with experts, regarding the species to determine if it should be provided protection under the Act. In the case of the arroyo toad, as discussed above, the Service had completed a status review of the species and drafted a proposed rule (pursuant to

section 4(b)(1)(A)) before the petition was received.

Issue 14: Two commenters contended that adequate regulatory mechanisms are currently in place to protect the arroyo toad, because the species occurs largely on National Forest lands. Therefore, any action that could affect the species would undergo environmental review pursuant to National Environmental Policy Act.

Service Response: As stated in the proposed rule and this final rule, the arroyo toad has been extirpated from an estimated 75 percent of its former range. Although a substantial proportion of currently occupied habitat is found on National Forest lands, recovery of arroyo toads on privately owned lands will likely be necessary to restore the species to levels that will permit removal from the endangered species list. The commenters are correct in stating that actions on Federal lands would be subject to review under the National Environmental Policy Act (NEPA). However, the objective of NEPA is to ensure that Federal agencies consider every significant aspect of the environmental impact of a proposed action. The law does not guarantee that actions with significant impacts will not be authorized. Therefore, NEPA will be applied to actions that affect the arroyo toad, but it does not assure protection for the species.

Issue 15: One commenter stated that listing will not alleviate the effect of exotic predators, which was identified in the proposed rule as one of the most severe threats to the survival of the arroyo toad.

Service Response: The Act provides for the determination of endangered or threatened status to be based upon the five factors of section 4(a)(1) and not upon whether or not certain threats can be reduced or eliminated in a species' recovery. Section 4(f)(1) of the Act directs the Service to develop and implement a recovery plan for the conservation and survival of listed species. Most of the exotic predators are either game fish (e.g., bass, trout) or the bullfrog (see below). A recovery plan would address the reduction of some of the impacts from those predators through State and Federal actions. Section 6 of the Act enables the Service to transfer funds to State endangered species conservation programs for implementation of actions that will further the conservation of the listed species. Thus, by listing the arroyo toad, guidance and funding can be provided for habitat management, including control of exotic predators in arroyo toad habitats.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the arroyo toad should be classified as an endangered species. Procedures found at 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 were followed. 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 toad. This toad is now confined to the headwaters of streams it occupied historically along their entire lengths.

The arroyo 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, Riverside, and San Diego Counties. Recent sightings of scattered individuals have been reported from Orange, San Bernardino, and southwest Imperial Counties.

The majority of the remaining populations in Santa Barbara and Ventura Counties are located on the Los Padres National Forest. This National Forest supports the majority of southern California's remaining intact large river systems and maintains five viable populations of arroyo 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).

Populations to the south are located primarily in San Diego and Riverside Counties and are predominantly found in the vicinity of the Cleveland National Forest and on private lands within or adjacent to national forest. In San Diego County, arroyo toads have been found on the Santa Margarita, Guejito, Sweetwater, Vallecito, San Luis Rey, Santa Ysabel, Witch, Cottonwood, Temescal, Agua Caliente, Santa Maria, Lusardi, Pine Valley, Noble, Kitchen, Long Potrero, Upper San Diego, San

Vincente, and Morena drainages. Populations on Temescal, Agua Caliente, Pine Valley, and Cottonwood drainages may be considered viable (J. Stephenson, *in litt.*, 1993; J. Copp, California Academy of Sciences, *in litt.*, 1993). Recent surveys have located very small populations of arroyo toads in four creeks in southwestern Riverside County (Temecula, Arroyo Seco, San Mateo, and Tenaja Creeks) (J. Stephenson, *in litt.*, 1993). The single recent occurrence of arroyo toads in San Bernardino County is on Deep Creek in the San Bernardino National Forest.

Several factors presently threaten the remaining 25 percent of the habitat of the arroyo 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 toad. Twenty-six large impoundments are currently located within the range of this species, inundating over 190 km (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 to 7 percent of the original range) of the arroyo 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 toads. Unseasonal water releases may prevent arroyo 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 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 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 toad (S. Sweet, pers. comm., 1991). Agriculture and urbanization have already destroyed much of the suitable arroyo 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 have 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 toad habitat and individuals, as discussed in Factor E. Off-highway vehicles cause extensive damage to the shallow pools in which arroyo toads breed (Sweet 1992).

Streamside campgrounds in southern California national forests have frequently been located adjacent to arroyo 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 toads within 50 to 100 meters (150 to 300 feet) of their breeding pools. On the upper Santa Ynez River, also in Los Padres National Forest, three of four campgrounds are also located in arroyo toad habitat (Sweet 1991a, 1991b). The placement of campgrounds is similar in the Cleveland National Forest in San Diego County; upper San Juan Creek, upper San Luis Rey River, and Cottonwood Creek all have campgrounds situated adjacent to arroyo toad breeding habitats (M. Jennings, *in litt.*, 1993).

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 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 toads in Mono Creek. The Ogilvy Ranch road makes 18 crossings of Mono Creek, many directly through or near arroyo 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 toads and other candidate amphibians and reptiles. However, the road was opened with a bulldozer in the fall. As juvenile arroyo toads were likely burrowed in the soft sand adjacent to the creek, grading the road up the creek destroyed habitat and probably killed individual toads. Regular maintenance of roads in the Los Padres National Forest negatively affects arroyo toad individuals and toad habitat on the Santa Ynez River, Piru and Sespe Creeks, as well.

Mining activities are an additional threat to this species. Recreational suction dredging for gold adversely affects toad habitat and individuals. Dredging destroys breeding pools used by arroyo 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 (Los Padres National Forest) produced sedimentation visible more than 1 kilometer (0.6 mile) downstream and adversely affected 40,000 to 60,000 arroyo 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 is probable that future challenges will occur and, if successful, will threaten the population of arroyo toads on Piru Creek.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Populations of the arroyo 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 from collecting by children near the campgrounds. No data exists on the extent of such collection activities, but it is probable that it continues to occur.

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, in part, by the interbasin transport of water (e.g., California Aqueduct). Introduced predators had substantial impacts on the sizes of extant populations of arroyo toads and may have contributed to regional extinctions (Hayes and Jennings 1986).

Virtually all rivers that contain or once contained arroyo 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*), rainbow trout (*Oncorhynchus mykiss*), oriental gobies (*Tridentiger* sp.), and red shiners (*Notropis lutrensis*) (Sweet 1992). All of these introduced fish prey on tadpoles and have been observed inducing high arroyo toad larval mortality in breeding pools on the Piru, Sespe, and Santa Ynez drainages. It is probable that predation by introduced fish species occurs elsewhere (Sweet 1992).

Arroyo toads occur in streams with perennial or near perennial flow. Most streams with populations of arroyo toads also have populations of introduced bullfrogs (*Rana catesbeiana*). Adult bullfrogs are highly predatory and have been observed to prey on adult arroyo toads (Sweet 1993). Habitat for bullfrogs has been enhanced within the existing range of the arroyo toad via diversions and artificially maintained perennial flows below dams. Increased bullfrog populations in these permanent water areas threaten the survival of arroyo toad populations.

D. The Inadequacy of Existing Regulatory Mechanisms

The U.S. Army Corps of Engineers (Corps) is responsible for administering section 404 of the Federal Water Pollution Control Act Amendments of 1972 (Clean Water Act) and 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 4 hectares (10 acres).

The Corps cannot issue a nationwide or individual permit where a federally proposed or listed species may be affected, without first conferring or consulting with the Service under section 7 of the Endangered Species Act. In addition, 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.

Most construction projects in or near arroyo 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 have not adequately protected arroyo 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 will 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 has recently funded studies on the ecology of arroyo toads (Sweet 1992, 1993). The Los Padres and Cleveland National Forests have begun to use this information to develop a riparian habitat conservation strategy to provide better protection for arroyo toads and other sensitive riparian species on the two forests. This positive step may address the impacts associated with road maintenance, off-highway vehicle use, placer mining, recreation, and the issuance of special use permits for dam and water diversion construction, all of which have contributed to the decline of the arroyo toad on national forests lands in southern California. Conservation actions by the Forest Service and the State of California will assist in the recovery of the species. Recovery of the species can not be assured, however, without the implementation of protective measures for arroyo toad populations on private lands.

Alteration of the natural intermittent flow regimes by dams has had significant adverse impacts to arroyo

toads. Prior to 1992, the California Department of Water Resources, which operates Pyramid Dam on Piru Creek in the Los Padres and Angeles National Forests, frequently discharged excess flows from the reservoir resulting in the depressed population of arroyo toads on lower Piru Creek. Recent coordination among the Department of Water Resources, Forest Service, and Fish and Wildlife Service have resulted in releases from the dam that more closely mimic natural flows, benefitting the arroyo toad. Water releases of several million gallons per day from Barrett Dam on Cottonwood Creek during the period when larval arroyo toads were metamorphosing negatively affected the population in San Diego County in summer 1993.

Although the arroyo toad is classified as a "Species of Special Concern" by the State of California (Steinhart 1990) and may not be taken without an approved 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 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 toads in another manner. Female arroyo 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). Although rainfall patterns in 1992 and 1993 returned to near normal levels, drought is a naturally recurring

phenomenon in southern California. There is no doubt that arroyo toads evolved with periodic, severe drought. However, the recurrence of this natural event combined with the many manmade factors negatively affecting arroyo toad survival remains a significant threat to the species persistence.

Periodic fires may adversely affect arroyo 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 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 toads including 15 known breeding pools and over 50 percent of the known adult population on the Sespe drainage (Sweet 1991c). Surveys in 1992 revealed that the effects of the fire and subsequent flooding, erosion, and siltation caused the death of not less than 50 percent of the resident adult population of arroyo toads.

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 toad reproductive success by disrupting the vocalization behavior of males during the breeding season (M. Jennings, *in litt.*, 1993). Generally, the local population of arroyo toads declines as campground use increases (Sweet 1992).

Unseasonal water releases from dams may prevent arroyo 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). For example, large unscheduled releases from Pyramid Lake in May 1991 virtually eliminated all reproduction by arroyo 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 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 toads (S. Sweet, pers. comm., 1991). Grazing also increases levels of sedimentation in streams that can smother eggs and larvae (M. Jennings, *in litt.*, 1993).

Off-highway vehicle use is believed to be the primary factor responsible for the decimation of the Mojave River population of the arroyo 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 toad larvae and juveniles are present and most vulnerable. As the young toads are diurnal, sedentary, 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 toads, which forage in open areas in the campgrounds, are frequently killed on campground roads at night (Sweet 1992; M. Jennings, *in litt.*, 1993).

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 toads, in which few individuals will reach sexual maturity until 1995 (Sweet 1992). As mature adults age and die in the next 2 years, little 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 detrimental events such as drought or road maintenance, 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 toad in determining to make this final rule. The arroyo 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 toad as endangered. Other alternatives to this action were considered but not preferred because not listing this species at all or listing it as threatened would not be in keeping with the purposes of the Act. For the reasons discussed below, critical habitat is not being proposed at this time.

Critical Habitat

Section 4(a)(3) of the Act requires to the maximum extent prudent and determinable that the Secretary designate critical habitat at the time a species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not presently prudent for the arroyo toad.

As discussed under Factor B in the "Summary of Factors Affecting the Species," the arroyo toad is threatened by taking, an activity difficult to control. Remaining populations of the arroyo 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 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 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)(2) requires Federal agencies to insure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed 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 Corps (Department of Defense) are the main Federal agencies that will be required to protect this species if it is listed. Federal agencies must consult with the Service, as described in section 7 of the Act, on any project that may affect this species. The Forest Service harbors a substantial portion of known arroyo toad populations; hence, some 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. Corps 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.

Listing of the arroyo toad as endangered will provide for the development of a recovery plan. Such a plan will bring together both State and Federal efforts for its conservation. The plan will establish a framework for cooperation and coordination among agencies in conservation efforts. The plan will set recovery priorities and estimate costs of various tasks necessary to accomplish them. It will also describe site-specific management actions necessary to achieve conservation and survival of the arroyo toad.

The Act and implementing regulations found at 50 CFR 17.21 set forth a series of prohibitions and exceptions that apply to 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.

It is the policy of the Service (59 FR 34272) to identify to the maximum extent practicable those activities that would or would not constitute a violation of section 9 of the Act at the time of listing. The intent of this policy is to increase public awareness of the effect of this listing on proposed and ongoing activities within a species' range. For further information, contact the Field Supervisor (see "ADDRESSES" section). During the public comment period inquiries were made as to the effect listing would have on the mining industry, water projects, and recreational activities. The Service believes that, based on the best available information, the following actions will not result in a violation of section 9, provided these activities are carried out in accordance with existing regulations and permit requirements: momentary moving of individual adult toads out of danger (e.g., road, path); release, diversion, or withdrawal of water in a manner that does not displace tadpoles or eggs or disrupt breeding of adults; normal lighting and noises around campgrounds; and non-destructive recreational use of breeding habitat outside of the breeding period (January through May).

Activities that the Service believes could potentially result in the take of

the arroyo toad, include, but are not limited to, unauthorized collecting or capture of the species, except as noted above to momentarily move an individual out of harm's way; introduction of exotic species into occupied habitat (e.g., fish, other species of toads); unauthorized destruction/alteration of the species' habitat (e.g., in-stream dredging, rock removal, channelization, discharge of fill material, operation of any vehicles within the stream channel); violation of a construction, discharge or withdrawal permit that affects occupied habitat; pesticide applications affecting occupied habitat in violation of label restrictions; or other illegal discharges or dumping of toxic chemicals, silt, or other pollutants into waters supporting the species.

Other unauthorized activities not identified in the above two paragraphs will be reviewed on a case-by-case basis to determine if a violation of section 9 of the Act may have occurred. The Service does not consider these lists to be exhaustive and provides them for the information of the public.

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, and for incidental take in connection with otherwise lawful activities. Requests for copies of the regulations on listed wildlife and inquiries regarding them may be addressed to the U.S. Fish and Wildlife Service, Ecological Services, Endangered Species Permits, 911 N.E. 11th Avenue, Portland, Oregon 97232-4181 (503/231-2063; FAX 503/231-6243).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental

Assessment or Environmental Impact Statement, 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).

References Cited

A complete list of all references cited herein is available upon request from the Ventura Field Office (see **ADDRESSES** above).

Author

The primary author of this final 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, and Transportation.

Regulation Promulgation

Accordingly, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations is amended, 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. 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.

* * * * *
(h) * * *

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	Entire	E	568	NA	NA

Dated: November 22, 1994

Mollie H. Beattie,

Director, U.S. Fish and Wildlife Service

[FR Doc. 94-30994 Filed 12-15-94; 8:45 am]

BILLING CODE 4310-65-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 675

[Docket No. 940958-4329; I.D. 081894A]

RIN 0648-AH29

Groundfish Fishery of the Bering Sea and Aleutian Islands Area

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NMFS issues regulations to delay the opening of the first (roe) directed fishing season for the 1995 offshore component pollock fishery in the Bering Sea and Aleutian Islands management area (BSAI) by delaying the opening of the trawl fishery, the only gear type used in the fishery, from January 20 to January 26. This action is necessary to increase the likelihood of harvesting pollock when roe quality is optimum and thus increase revenues from the BSAI pollock processed by the offshore component during the roe season. The regulations also prohibit vessels used to fish for BSAI or Gulf of Alaska (GOA) groundfish or BSAI king or Tanner crab prior to January 26 from participating in the offshore component pollock fishery until February 5. This 10-day prohibition on entry into the offshore component fishery does not apply to vessels used to fish exclusively in the Western Alaska Community Development Quota (CDQ) program prior to January 26 and is necessary to discourage participants in the offshore component pollock fishery from contributing to increased fishing effort in other fisheries prior to the start of the offshore component roe season. These actions are intended to promote the fishery management objectives of the Fishery Management Plan (FMP) for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area.

EFFECTIVE DATE: January 12, 1995.

ADDRESSES: Copies of the environmental assessment/regulatory impact review/final regulatory flexibility analysis (EA/RIR/FRFA) may be obtained from the Alaska Region, National Marine

Fisheries Service, P.O. Box 21668, Juneau, AK 99802, Attn: Lori Gravel.

FOR FURTHER INFORMATION CONTACT: Susan J. Salveson, 907-586-7228.

SUPPLEMENTARY INFORMATION:

Background

Fishing for groundfish by vessels in the exclusive economic zone of the BSAI is managed by NMFS according to the FMP for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area. The FMP was prepared by the North Pacific Fishery Management Council (Council) under the Magnuson Fishery Conservation and Management Act and is implemented by regulations governing the U.S. groundfish fisheries at 50 CFR parts 620, 675, 676, and 677.

Regulations at 50 CFR 675.23(e) establish two fishing seasons for BSAI pollock. The first (roe) directed fishing season extends from January 1 until April 15. The second (nonroe) season extends from August 15 through the end of the fishing year. Since 1992, regulations at § 673.23(d) have prohibited fishing for groundfish with trawl gear until January 20 of each fishing year (57 FR 381, January 6, 1992). Nontrawl fisheries for pollock do not exist.

This action delays the opening date of the 1995 offshore component directed pollock roe trawl fishery in the BSAI from January 20 to January 26 to increase the likelihood of harvesting pollock when roe quality is optimum. The large harvesting capacity in the offshore component has resulted in a fast-paced fishery of decreasing duration (in 1994 the directed trawl fishery was opened for a 29-day period from January 20 until February 18) that, in the past, has closed before the period of prime roe quality, which peaks between the 10th and 20th of February. This delay of the offshore component pollock roe fishery (all gear) will increase the likelihood that the offshore component season will encompass the time period of prime roe quality.

This action also prohibits vessels used to fish for BSAI or GOA groundfish or BSAI king or Tanner crab prior to January 26 from participating in the offshore component pollock fishery until February 5. This 10-day prohibition on entry into the offshore component fishery does not apply to vessels used to fish exclusively in the BSAI pollock CDQ program prior to January 26. This prohibition is intended to discourage a shift in fishing effort into other fisheries by pollock vessels prior to January 26.

A proposed rule to implement this action was published in the *Federal*

Register September 26, 1994 (59 FR 49051). Comment on the proposed rule was invited through October 26, 1994. Two letters were received in support of the proposed action and one letter was received in opposition. The three letters are summarized in the Response to Comments section, below.

NMFS has determined that a delay of the offshore component pollock roe season is consistent with the Magnuson Act and has approved it. The necessity for and description of this action are explained further in the preamble to the proposed rule. This season delay is effective only through December 31, 1995, when regulations authorizing the allocation of pollock between the inshore and offshore component expire.

Response to Comments

Three letters were received within the comment period. A summary of the comments and NMFS' response follows:

Comment 1. The proposed delay of the roe season for the offshore component pollock fishery will have a positive economic effect by increasing the chance that pollock will be harvested when roe quality and yield are best and the price is highest.

Response. NMFS agrees that a delay of the offshore component pollock roe season should have positive economic benefits and has approved the action.

Comment 2. The proposed 10-day delay of the opening date to February 5 for nonCDQ vessels that are used to participate in other fisheries before January 26 sufficiently addresses concerns about the potential for increased fishing effort in other fisheries prior to this date.

Response. The proposed rule requires vessel owners/operators to choose between participating in the offshore component pollock fishery during the period January 26 through February 5 or participating in other fisheries before January 20, the start of the BSAI trawl season, and January 26. Those vessels used to fish for BSAI or GOA groundfish or BSAI crab prior to January 26 are prohibited from entering the offshore pollock roe season until February 5. This prohibition does not apply to vessels used to participate exclusively in the BSAI pollock CDQ program prior to January 26. NMFS agrees that this prohibition addresses the intent of the Council to significantly reduce the incentive to participants in the offshore pollock fishery to enter other fisheries prior to January 26. This prohibition, therefore, was approved as part of the rule implementing the proposed delay of the offshore pollock roe fishery.

Comment 3. The proposed action precludes pollock catcher vessels from