

AESO/SE
22410-2006-F-0724

September 11, 2008

Memorandum

To: Regional Director, Region 2, Albuquerque, New Mexico (ARD-ES)
(Attn: Susan Jacobsen)

From: Field Supervisor

Subject: Findings and Recommendation on Issuance of an Enhancement of Survival Permit for Threatened Chiricahua Leopard Frog (*Rana chiricahuensis*), Endangered Yaqui chub (*Gila purpurea*), Endangered Yaqui Topminnow (*Poeciliopsis occidentalis sonoriensis*), Threatened Yaqui Catfish (*Ictalurus pricei*), and Threatened Beautiful Shiner (*Cyprinella formosa*) in Cochise County, Arizona (TE-160629-0)

I. DESCRIPTION OF PROPOSAL

The Alys F. Bennett, 99 Bar Ranch Limited Liability Limited Partnership and Mr. Josiah and Mrs. Valer Austin, owners of the Bar Boot Ranch, (Permittees) have developed a Safe Harbor Agreement (Agreement) and have applied to the U.S. Fish and Wildlife Service (FWS) for an incidental take permit pursuant to Section 10(a)(1)(A) of the Endangered Species Act, as amended (16 USC §1531-1544)(Act). The requested permit, which is for a period of 50 years, would authorize incidental take of threatened Chiricahua leopard frog (*Rana chiricahuensis*), endangered Yaqui chub (*Gila purpurea*), endangered Yaqui topminnow (*Poeciliopsis occidentalis sonoriensis*), threatened Yaqui catfish (*Ictalurus pricei*), and threatened beautiful shiner (*Cyprinella formosa*), resulting from land-treatment activities for watershed improvements, ongoing land management activities, implementation of conservation activities, and taking these species back to baseline conditions. One endangered plant species, Huachuca water umbel (*Lilaeopsis schaffneriana* var. *recurva*), would also be considered a Covered Species and is included in the Agreement. Although taking of plant species is not prohibited under the ESA and therefore cannot be authorized under a section 10(a)(1)(A) enhancement of survival permit, this plant species is included in the Agreement to account for implementation of recovery actions on private lands and return to baseline condition similar to the animal species covered in the permit. The baseline condition for Huachuca water umbel on the covered properties is zero.

The area covered by the Agreement and associated permit would be approximately 24,585 acres in the upper Leslie Canyon watershed downstream from the Coronado National Forest Boundary and upstream from the Leslie Canyon National Wildlife Refuge. Ms. Alysa F. Bennett and Mr. Josiah and Mrs. Valer Austin will hold the Agreement's associated section 10(a)(1)(A) Permit.

Under this Agreement, the Permittees will work to enhance and maintain the portion of the Leslie Canyon watershed on the enrolled properties. This will be accomplished through the implementation of watershed improvement, such as partial fencing, erosion control activities, and other riparian and hydrologic improvements during the 50-year duration of the Agreement and associated section 10(a)(1)(A) enhancement of survival permit. The enhancement of survival permit shall cover on-going land-use activities, watershed improvement activities, and species-related management and monitoring activities.

Analysis of Effects

II. PUBLIC COMMENT

A Notice of Availability of the Agreement, the associated draft Environmental Assessment and Receipt of the Application for a Section 10(a)(1)(A) Enhancement of Survival Permit for Chiricahua leopard frog, Yaqui chub, Yaqui topminnow, Yaqui catfish, and beautiful shiner on 24,585 acres in the upper Leslie Canyon watershed downstream from the Coronado National Forest Boundary and upstream from the Leslie Canyon National Wildlife Refuge in Cochise County, Arizona, was published in the Federal Register on April 11, 2008. Publication of the notice initiated a 60-day comment period, which closed on June 10, 2008. Letters with a copy of the Federal Register notice were mailed to approximately 175 interested parties. A news release was sent to 43 reporters/editors at 35 different news media outlets on April 22, 2008. The Agreement was available on the FWS - Arizona Ecological Services Office website and by request at the Phoenix and Tucson ES Offices. We received no responses during the public review and comment period.

III. ENHANCEMENT OF SURVIVAL PERMIT CRITERIA - ANALYSIS AND FINDINGS

1. The taking of the above listed species will be incidental to otherwise lawful activities and will be in accordance with the terms of the Agreement.

Incidental take of Chiricahua leopard frog, Yaqui chub, Yaqui topminnow, Yaqui catfish, and beautiful shiner may occur under the Agreement primarily as a result of restoration and maintenance of riparian vegetation. This will be accomplished by the Participants implementing a series of enhancements to the watershed and riparian vegetation that includes erosion control projects, management of livestock tanks and ponds, control of invasive species, and twelve upland land-treatment activities: 1) fire management; 2) erosion control; 3) mechanical brush control; 4) herbicide brush control; 5) ongoing livestock management; 6) construction and maintenance of ranch infrastructure; 7) livestock tank use and maintenance; 8) light recreation; 9) habitat enhancements and protection; 10) control of invasive non-native species; 11) reestablishment and monitoring; and 12) a decision by the Participants to return the covered lands to baseline conditions. Any take of Chiricahua leopard frog, Yaqui chub, Yaqui topminnow, Yaqui catfish, or beautiful shiner will be incidental to these otherwise legal activities.

2. Implementation of the terms of the Agreement is reasonably expected to provide a net conservation benefit to the affected listed species and the Agreement otherwise complies with the Safe Harbor policy (May 3, 2004).

This Agreement, through re-establishment of the Covered Species on non-Federal lands and providing regulatory assurances so permittees may undertake watershed improvement activities that are expected to improve the watershed above Leslie Canyon NWR, is reasonably expected to result in the following net conservation benefits to the covered species:

- Increased population sizes of Chiricahua leopard frogs, Yaqui topminnow, Yaqui chub, Yaqui catfish, beautiful shiner, and Huachuca water-umbel both locally and in the general area.
- Elimination of the need to use mosquito fish (*Gambusia* spp.) for mosquito control in all ranch waters and allow for greater control of non-native predators and competitors that threaten the covered species in the watershed.
- Insurance against the loss of the covered species in the general area because of the extirpation of localized populations.
- An increased connectivity of populations in the general area.
- Restoration of the water table, allowing for more stable discharge rates in Leslie Canyon NWR.
- Increased overall quality and quantity of water, by lessening the potential for erosive scouring of wetlands during extreme floods.
- Increased overall volume of perennial wetland habitats for the covered species downstream from the ranches on the LCNWR.
- Improved watershed stability and hydrologic function by implementing prescribed burns to improve grass and herbaceous plant cover.

The FWS has determined that the Participants' conservation measures, as described in this Agreement, are reasonably expected to provide a net conservation benefit to all the covered species as described above. All of the species' listing rules cite the destruction and degradation of wetland habitats, and the conservation measures above will reduce and reverse the negative trend of wetlands in the area.

Given the probable species' response time to the planned conservation measures, the FWS estimates it may take at least five years of implementing the Agreement to fully reach a net conservation benefit for the species' habitat, although some level of benefits will likely occur within a shorter time period. If these species are translocated or disperse onto the covered properties, the net conservation benefits for these species would be realized upon reestablishment of self-sustaining populations within the covered area. The 50-year duration of this Agreement is considered sufficient to establish populations of the covered species and fully reap the benefits of additional conservation measures aimed at the long-term protection of the watershed on the enrolled property.

Implementation of this Agreement is expected to result in protection, reestablishment, and expansion of the covered species beyond the baseline condition within the lands enrolled under the Agreement. The 50-year permit would also minimize the impact of any take of individuals above the baseline condition. The permit and Agreement may be extended beyond the specified terms through amendment, upon agreement of the Parties.

The net conservation benefit is reasonably expected to be attained by implementation of the conservation measures, including the reestablishment of covered species on the enrolled properties. The first signs of a net conservation benefit will be observed within the first several years of implementation of this Agreement, when populations of the covered species are established. The full conservation benefit is reasonably expected to occur within five years, as populations become self-sustaining and other conservation measures (e.g., erosion control and prescribed burns) are enacted.

The Participants agree to voluntarily manage the enrolled lands to produce a cumulative net conservation benefit to the covered species, by implementing conservation measures to increase species populations and/or enhance/restore/maintain suitable habitat. The net conservation benefit will be sufficient to contribute, directly or indirectly, to recovery of the covered species, after taking into account the length of the Agreement and any off-setting adverse effects of authorized take. Although the Agreement may not permanently conserve or recover species populations or their habitats, it provides for important short-, mid-, or long-term benefits to the species, including but not limited to: maintenance/restoration/enhancement of habitat; maintenance/increase of population numbers or distributions; increase in habitat connectivity; reduction of habitat fragmentation; increased resilience against catastrophic events; establishment of buffers for other protected areas; and creation of areas for testing and implementing new conservation strategies.

3. The probable direct and indirect effects of any authorized take will not appreciably reduce the likelihood of survival and recovery in the wild of any listed species.

The Act's legislative history establishes the intent of Congress that issuance criteria be based on a finding of "not likely to jeopardize" a species or destroy or adversely modify its critical habitat under section 7(a)(2) [see 50 CFR 402.02]. As a result, we have reviewed our approval of the Applicant's permit application under section 7 of the Act. In the Biological Opinion, which is attached hereto and incorporated by reference, we concluded that issuance of the permit to the Participants will not likely jeopardize the continued existence of the Chiricahua leopard frog, Yaqui chub, Yaqui topminnow, Yaqui catfish, beautiful shiner, and Huachuca water umbel; and will not destroy or adversely modify the critical habitat of these species. We also determined that permit issuance may affect, but will not likely adversely affect, the southwestern willow flycatcher, lesser long-nosed bat, or jaguar.

It is unknown how many sites may become established, through natural dispersal or through reestablishment efforts by the Participants and Federal and State Agencies, as watershed conditions improve and suitable habitat develops. Regardless of the number, all the populations of the covered species above the baseline condition will be considered "taken" in the analysis of the species' current status and baseline, unless there are provisions for their long-term persistence (i.e. beyond the 50-year period of the Agreement). Therefore, in evaluating subsequent Federal projects, Habitat Conservation Plan proposals, and any other

proposed Safe Harbors, the FWS will not “overestimate” the number of occupied sites for these species under a jeopardy analysis.

4. Implementation of the terms of the Safe Harbor Agreement is consistent with applicable Federal, State, and Tribal laws and regulations.

The Agreement complies with all other applicable Federal, State, and Tribal laws and regulations as outlined in the Agreement and Environmental Assessment.

5. Implementation of the terms of the Safe Harbor Agreement will not be in conflict with any ongoing conservation or recovery programs for listed species covered by the permit.

This Agreement will assist in maintaining the isolated population of Chiricahua leopard frogs at Leslie Canyon NWR and providing enough alternative sites in the watershed to ensure long-term persistence and stability within the Swisshelm Mountains Management Area, Recovery Unit 3. This may further facilitate natural recolonization of the Southern Chiricahua Mountains Management Area and establish a stable metapopulation on the national forest. This, combined with the metapopulations being reestablished in the Peloncillo Mountains, may accomplish recovery criteria 1 for this species in Recovery Unit 3 (U.S. Fish and Wildlife Service 2007). Recovery criteria 2, 3, and 4 would be partially met through the implementation of this Agreement and facilitate the establishment of the metapopulation (U.S. Fish and Wildlife Service 2007).

The Huachuca water umbel has no approved recovery plan or recovery criteria in place. However, several activities proposed under this Agreement would assist in reducing the threats identified in the final rule listing Huachuca water umbel (62 FR 665). This Agreement would be with cooperating landowners who would, through their actions, assist in the re-establishment of Huachuca water umbel populations in suitable habitats and enhance and protect Huachuca water umbel populations down stream on Leslie Canyon NWR. This Agreement also includes provisions for annual monitoring of any suitable habitats and establishment sites, the results of which will be reported annually.

The Fishes of the Rio Yaqui Recovery Plan (U.S. Fish and Wildlife Service 1995) identifies three general conditions for delisting the beautiful shiner and Yaqui catfish, and downlisting the Yaqui chub and Yaqui topminnow. The Leslie Canyon Watershed SHA will contribute to general recovery condition a, through the watershed improvement actions that will occur and their contribution to securing and protecting adequate, perennial flow in Leslie Creek. The watershed improvements and reestablishments in the Agreement should enhance and improve suitable habitats on Leslie Canyon NWR to increase security and stability of existing and future reestablished Yaqui fish populations on the Refuge. This would also assist in meeting delisting condition 1 for the beautiful shiner, and downlisting criteria 1 for both the Yaqui chub and Yaqui topminnow.

The implementation of this Agreement will be reliant on the participation and approval of the Arizona Game and Fish Department to reestablish populations of Chiricahua leopard frogs and Yaqui fish. This will assure that, while meeting recovery and conservation goals, this Agreement does not conflict with any ongoing conservation or recovery programs for these listed species. The Agreement will also demonstrate incentives for private landowners to

establish populations of listed species on non-Federal property and result in increased interest in participation by non-Federal property owners in AGFD's State-wide Chiricahua Leopard frog and Topminnow and Pupfish Safe Harbor Agreements.

- 6. The applicant has shown capability for, and commitment to, implementing all of the terms of the Agreement.

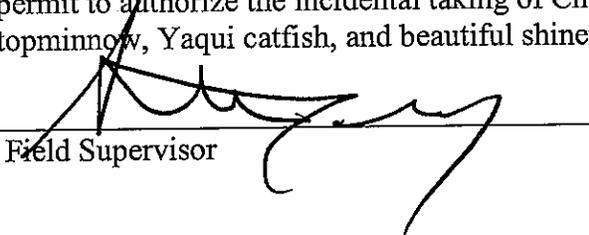
Watershed-improvement activities have been ongoing on these properties with the assistance of the NRCS, FWS (using National Wildlife Refuge System and Partners for Fish and Wildlife Program resources) and personal finances of the applicants. The Austins have a proven track record of successfully implementing such projects on their El Coronado Ranch under an existing habitat conservation plan and associated incidental take permit (USFWS 1988). All Parties agree to explore possibilities for securing additional funding to restore wetland habitat on the 99 Bar Ranch and Bar Boot Ranch within the Leslie Creek Watershed.

IV. GENERAL CRITERIA AND DISQUALIFYING FACTORS – ANALYSIS AND FINDINGS

We have no evidence that the permit should be denied on the basis of the criteria and conditions set forth in 50 CFR 13.21 (b)-(c). The Applicants have met the criteria for the issuance of the permit and does not have any disqualifying factor that would prevent the permit from being issued under current regulations.

V. RECOMMENDATION ON PERMIT ISSUANCE

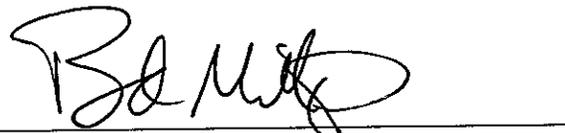
Based on the foregoing findings with respect to the proposed action, I recommend issuance of a permit to authorize the incidental taking of Chiricahua leopard frog, Yaqui chub, Yaqui topminnow, Yaqui catfish, and beautiful shiner in accordance with the Agreement.



Field Supervisor

9/11/08
Date

Concur:



Deputy Regional Director

30 Sept. 2008
Date