



United States Department of the Interior

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Handwritten form with 'SURNAME' header and entries: J. Miller 9/28, A. Jacobsen, and A. Acosta 9/28. Date 09/29 is written on the right side.

Memorandum

To: Regional Director, Region 2, Albuquerque, New Mexico (ARD-ES)
(Attn: Luella Roberts-Stroebel)
From: Field Supervisor
Subject: Findings and Recommendations on Issuance of an Enhancement of Survival
Permit for Chiricahua leopard frog under the Safe Harbor Agreement for
Chiricahua Leopard Frog in Arizona with Arizona Game and Fish Department
(TE-123062-0)

I. DESCRIPTION OF PROPOSAL

The Arizona Game and Fish Department (Department) has developed a Safe Harbor Agreement (Agreement) and applied to the U.S. Fish and Wildlife Service (USFWS) for an enhancement of survival 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 frogs (Rana chiricahuensis) resulting from the implementation of conservation actions on non-Federal lands enrolled under the Safe Harbor Agreement. Incidental take would also occur as a result of returning Chiricahua leopard frog populations, and their habitat, to baseline conditions on enrolled properties.

The area covered by the Agreement and associated permit is approximately 5,792,179 acres (9,050 mi^2) of non-Federal lands within the range of the Chiricahua leopard frog in Arizona. The Department will hold the Agreement's associated section 10(a)(1)(A) Permit and issue certificates of inclusion to willing landowners. This Agreement provides two levels of participation from which a non-Federal landowner can choose: Participating Landowner or Participating Neighbor. Both participation and the level of participation in the Agreement are voluntary.

Under this Agreement, the Department will provide incidental take coverage for Chiricahua leopard frogs to non-Federal landowners who voluntarily agree to enhance or create new Chiricahua leopard frog habitat, protect existing habitat, and/or allow Chiricahua leopard frog populations to be reestablished on their lands. In addition, neighboring landowners can seek coverage under the Agreement against any regulatory restrictions resulting from frogs moving

onto their property as a result of recovery activities. However, these regulatory assurances only cover Chiricahua leopard frogs and habitat that are not part of an enrolled property's existing baseline condition. Those Chiricahua leopard frog population sites that are occupied at the time of enrollment under the Agreement would be fully protected under the Act.

Implementation of the agreement may result in incidental taking of a number of listed species within the covered area and over the 50-year permit duration (see accompanying internal section 7 biological opinion for a list of species). Such taking would result from construction activities (ponds, wells, fences, and pipelines), maintenance of aquatic sites, control of non-native predators and competitors, and return of enrolled sites to baseline condition. Such taking would be incidental to, and not the purpose of, implementing recovery actions for the Chiricahua leopard frog. The effects of the action, including anticipated incidental take, have been analyzed in the accompanying biological opinion and determined not likely to jeopardize the continued existence of any species or destroy or adversely modify any designated or proposed critical habitat.

Regulations require that baseline surveys for the frog be performed, a certificate of inclusion be signed by the landowner, reasonable notification be given of any activity that may result in take of the covered species, and access be granted to minimize any take of the covered species. In addition, this Agreement sets minimum conservation measures (Section 2.5 of the Agreement) for all participants to reduce incidental take.

II. PUBLIC COMMENT

We published a Notice of Availability of the Agreement and Receipt of the Application for a Section 10(a)(1)(A) Enhancement of Survival Permit for Chiricahua leopard frog throughout its range in Arizona on August 2, 2006. Publication of the notice initiated a 30-day comment period, which closed on September 1, 2006. Letters, with a copy of the Federal Register notice, were mailed to approximately 212 interested parties. The Agreement was available on the USFWS - Arizona Ecological Services Field Office website and by request at the Phoenix and Tucson USFWS Offices. We received three responses: from Dennis Caldwell, private citizen; Young Cage, President of the Tucson Herpetological Society; and Dennis Parker, on behalf of Mr. Jim Chilton and the Chilton Ranch and Cattle Company. Responses to the comments are provided in the Final Environmental Assessment (EA).

III. ENHANCEMENT OF SURVIVAL PERMIT CRITERIA - ANALYSIS AND FINDINGS

1. Taking of the Chiricahua leopard frog is authorized in the subject permit as well as in another 10(a)(1)(A) permit issued to cover captive, holding, and transport of frogs and will be in accordance with the terms of the Agreement.

Take of Chiricahua leopard frogs may occur under this Agreement primarily as a result of five categories of activities: management, construction, non-native species control, and return to baseline conditions. Management activities include all the required conservation measures mentioned in the Agreement: maintaining existing habitat conditions, enhancing travel corridors between population sites within a metapopulation,

enhancing existing stream and cienega habitats, and enhancing vegetation to provide additional cover sites and reduce siltation. Construction activities include construction of a double tank system or a small refugial site at single tank systems, fencing of a portion of a tank or stream to prevent destruction or excessive deterioration or trampling of leopard frog habitat at an aquatic site, drilling new wells and/or connecting sites by pipeline to improve persistence at population sites, deepening the tank or pool to increase the amount of water in a tank or pool, adding silt traps to existing livestock tanks, and constructing refugia sites or new livestock tanks. Non-native species control activities include removing non-native aquatic predators and competitors from otherwise suitable sites through mechanical and/or pesticide treatments.

In addition, incidental take may occur related to ongoing land uses, e.g. vehicle use on a ranch road, or livestock grazing. Take of Chiricahua leopard frogs incidental to these otherwise lawful activities and in accordance with the terms of the Agreement is covered under the accompanying intra-Service biological opinion.

2. The implementation of the terms of the Agreement is reasonably expected to provide a net conservation benefit to the Chiricahua leopard frog by contributing to the recovery of the species, and the Agreement otherwise complies with the Safe Harbor policy (May 3, 2004).

The Agreement is reasonably expected to provide a net conservation benefit to the Chiricahua leopard frog, as required by our Final Safe Harbor Policy as revised, 69 FR 24084 (May 3, 2004). The Agreement's purpose is to establish a program for the conservation of the Chiricahua leopard frog on non-Federal lands in Arizona.

This Agreement is likely to result in numerous conservation benefits to the Chiricahua leopard frog. Generally, these will accrue as a result of establishment, under the Agreement, of a clear, well-defined conservation program across the Arizona portion of the species' overall range that we expect will be consistent with the species' Recovery Plan (currently in draft form). More specifically, this Agreement will provide for management of existing Chiricahua leopard frog populations within the covered area and for establishment of new populations through translocation and colonization. The Agreement will also thus increase effectiveness of management within discrete geographical areas by extending management efforts to private lands. These actions are expected to result in a net increase in Chiricahua leopard frog distribution, numbers, and persistence throughout the species' range in Arizona. This Agreement will provide for improvements in Chiricahua leopard frog habitat quality and reliability through habitat-improvement projects, and for the application of accepted scientific principles—involving captive propagation and rearing, metapopulation dynamics, genetics, and disease prevention—in managing the program. In addition, the Agreement will provide for the flexibility needed to respond to special management challenges and evolving circumstances through its Adaptive Management program and changed circumstances provisions. These benefits are not expected immediately, but several years after the Agreement is approved and permit issued. We expect a few landowners, who have already expressed interest, to enroll immediately and to see the benefits within a year. As the Department actively promotes the early successes of this Agreement, interest in

participation is expected to increase. We expect a patchwork of non-Federal lands to be enrolled in the Agreement for the life of the Agreement. These non-Federal lands, combined with actions on Federal lands, should result in the development of functioning metapopulations and assist in long-term recovery. The exact location of participants is hard to predict, based upon the programmatic nature of this Agreement; however, we expect most private land to be enrolled in the area of the southeastern form of the Chiricahua leopard frog, based upon the amount of non-Federal land in the southern portion of the State. Inquiries about participation have already been received from landowners in Recovery Unit 1 and Recovery Unit 3.

The Agreement is also likely to provide indirect benefits to Chiricahua leopard frogs in several ways. First, by addressing the concerns of non-Federal landowners in the covered area, the Agreement is expected to secure private landowner cooperation in management of Chiricahua leopard frogs on their lands. This is especially significant in light of the importance of privately owned lands and facilities (e.g., stock tanks) to Chiricahua leopard frog survival (see Section 1.3.4). In the absence of this cooperation, many areas within Arizona would likely not support Chiricahua leopard frogs at all, and the perpetuation of several other existing populations would be uncertain. Furthermore, if it is demonstrated that livestock ranching and Chiricahua leopard frog management can be compatibly integrated, this Agreement is likely to set an example and precedent for possible future similar agreements in other areas throughout the Chiricahua leopard frog's range, as well as for other listed, or otherwise sensitive, species.

These benefits are expected to result in a net increase in Chiricahua leopard frog populations within the covered area through the direct participation of non-Federal landowners who can gain regulatory assurances through this Agreement. At present, only a handful of Chiricahua leopard frog populations exist on private lands in the covered area. Furthermore, although the period that Participating Landowners are required to maintain such populations is temporary (at least 10 years), the Department and the USFWS anticipate that many such populations will be maintained indefinitely. This is because the conservation measures under the agreement are specifically designed to be compatible with livestock ranching operations and because the associated regulatory assurances will help ensure continuing landowner cooperation. Consequently, it is expected that many landowners will maintain Chiricahua leopard frog populations on their lands so long as such maintenance is consistent with their ranching interests.

This Agreement will further help to reduce existing threats to this species through the control of nonnative predators and competitors of the Chiricahua leopard frog. This will open existing suitable habitat to Chiricahua leopard frogs and allow for natural colonization of existing habitats for this species.

In summary, this Agreement is expected to result in a net conservation benefit to the Chiricahua leopard frog and to contribute substantially to the species' recovery by contributing to Chiricahua leopard frog population increases across a significant portion of the species' range and by ensuring reliable management of such populations.

Consequently, the Department and USFWS believe that the terms satisfy USFWS regulatory requirements for approval of this Agreement.

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" under section 7(a)(2) [see 50 CFR 402.02]. As a result, we have also reviewed 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 Applicant will not likely jeopardize the continued existence of the Chiricahua leopard frog or 25 other listed, proposed and candidate species, and it will not modify or destroy any designated or proposed critical habitat. Although the non-Federal landowners will be implementing conservation actions and at times establishing new populations of Chiricahua leopard frogs, the frogs at these new sites will be analyzed appropriately as Safe Harbor Agreement populations in the status of 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 Harbor Agreements, we will not "overestimate" the number of occupied sites for this 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 Safe Harbor 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.

The recovery strategy described in the Draft Recovery Plan for the Chiricahua Leopard Frog is to reach a population level and have sufficient habitat to provide for the long-term persistence of metapopulations in each of eight recovery units (RUs). The strategy will involve reducing threats to existing populations; maintaining, restoring, and creating habitat that will be managed in the long term; establishing, re-establishing, and augmenting populations; building support for the recovery effort through outreach and education; monitoring; conducting research needed to provide effective conservation and recovery; and applying research and monitoring through adaptive management. Management areas (MAs) are identified in each RU where we believe the potential for successful recovery actions is greatest.

Establishment and maintenance of at least two metapopulations in different drainages within each RU are key to the recovery strategy. These metapopulations must exhibit long-term persistence and be protected from non-native predators, disease, habitat alteration, and other

threats. As a buffer against disease, at least one additional robust, but isolated population should be established and maintained in each RU. A captive or actively-managed, genetically diverse refugium population will also be desirable for RUs in which extirpation of Chiricahua leopard frogs is likely in the near future. These refugia can serve as a source of animals for establishment and augmentation projects, for contingency planning in case of environmental or other disasters that reduce or eliminate populations, and to supply animals needed for research related to conservation.

The Agreement is consistent with and will assist in implementing the following recovery actions outlined in the Draft Chiricahua Leopard Frog Recovery Plan:

- 1.2 Enhance bank-line and aquatic vegetation, and habitat complexity at sites with extant populations, where needed
- 1.2.9 Eliminate non-native predators at or near Chiricahua leopard frog populations that pose a threat to those populations
- 1.3 Establish refugia populations as needed to preserve frog populations in MAs or RUs
2. Identify, restore, or create as needed, and protect currently unoccupied recovery sites in each RU necessary to support viable populations and metapopulations of Chiricahua leopard frogs
3. Establish new or re-establish former populations at selected recovery sites
4. Augment populations in MAs as needed to increase persistence
8. Develop cooperative conservation projects, such as Safe Harbor Agreements and habitat conservation plans, with willing landowners to implement recovery on non-Federal lands
5. The applicant has shown capability for, and commitment to, implementing all of the terms of the Agreement.

The conservation program established by the Agreement is intended to be a collaborative process between the USFWS, Department, Participating Landowners, and other public and private cooperators. Accordingly, no single source will support the program's funding requirements. Instead, each cooperator will contribute funds, services, and other program needs according to its resources and role in the program. In addition, funds in the form of contracts, grants, and donations will be sought from program-related sources (i.e., program cooperators) as well as non-program related sources, such as conservation organizations and foundations.

The Department, through its Nongame Branch, has had an active ranid frog program since 1990. In addition to the routine monitoring and management of ranid frog population sites, the Department coauthored and signed a Candidate Conservation Agreement for the Ramsey Canyon leopard frog (*Rana subaquavocalis*), and is currently working on a similar agreement for the relict leopard frog (*Rana onca*). In the past 10 years, the Department has spent more than \$2,000,000 in Heritage grants, stewardship grants, operational funds, salaries, and pass-through funds for ranid frog conservation. The Department has been integral in the development of the draft Chiricahua Leopard Frog Recovery Plan. This Agreement is an additional step the Department has undertaken to conserve ranid frogs native to Arizona.

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 Applicant has 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, we recommend issuance of a permit to authorize incidental taking of Chiricahua leopard frogs in accordance with the Agreement.



 Field Supervisor

9/27/06
 Date

Concur:



 Acting Deputy Regional Director

9.29.06
 Date