

**United States Department of the Interior
U.S. Fish and Wildlife Service
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2-21-95-F-445R
2-21-95-F-441R
2-21-01-F-301
2-21-95-F-447R
2-21-95-F-442R
2-21-01-F-304
2-21-95-444R

March 14, 2003

Mr. John C. Bedell
Forest Supervisor
Apache-Sitgreaves National Forests
P.O. Box 640
Springerville, Arizona 85938-0640

Dear Mr. Bedell:

Thank you for your November 5, 2002, request to convert the Chiricahua leopard frog conference opinion on eight Alpine Ranger District allotments for the recently listed Chiricahua leopard frog (*Rana chiricahuensis*) (67 FR 40790, June 13, 2002) to a biological opinion. The eight-allotment opinion (2-21-95-F-445R, 2-21-95-441R, 2-21-01-F-301, 2-21-95-F-447R, 2-21-95-F-442R, 2-21-01-F-304, 2-21-95-444R) was based on our review of livestock grazing allotment management plans for the Alpine, Beaver Creek, Colter Creek, Coyote-Whitmer, Fish Creek, Hannagan, Sprucedale-Reno, and Grandfather allotments on the proposed threatened Chiricahua leopard frog. As requested in your May 14, 2001, letter, the conference was conducted following the procedures for formal consultation. Following §402.10(d) of the Federal regulations implementing the Endangered Species Act of 1973, as amended: If no significant new information is developed regarding the effects of the proposed project on the species, and no significant changes are made to the proposed project, the Fish and Wildlife Service may, upon written request by the action agency, adopt the opinion issued at the conclusion of the conference as the biological opinion for formal consultation when the species is listed. Accordingly, we have determined that it is appropriate to adopt the biological opinion rendered in the conference as the biological opinion for formal consultation based on the information in your November 5, 2002, letter and telephone conversations with Terry Myers of your staff. Also, by this letter we modify the incidental take statement as explained below.

Recent court cases have brought attention to many grazing biological opinions in Arizona. The courts have specified that two standards must be met in biological opinions. The Fish and Wildlife Service, together with the action agency, must determine that 1) a listed species occurs or is reasonably certain to occur in the project area during the life of the proposed action, and 2) take will or is reasonably certain to result from the action under consultation.

We do not believe that the presence of Chiricahua leopard frogs on these allotments was documented as reasonable certain in the Biological Assessments and Evaluations (BAEs) and in the conference opinion. Surveys for Chiricahua leopard frogs have not been conducted on the these allotments specifically for this species; however, we strongly encourage that such surveys be conducted. The following briefly describes the status of the Chiricahua leopard frog in the vicinity of each allotment for background information. Please note that the distances are rough approximations obtained from maps and survey data. For your convenience the map in Appendix A shows the relationship between known and historical Chiricahua leopard sites in relation to the allotments.

Available information on Chiricahua leopard frogs on the allotments does not meet the guidance set in the grazing guidance criteria which would allow us to conclude the species is likely to be present. According to the 2002 grazing guidance criteria, likely to be occupied habitat for the Chiricahua leopard frog includes: 1) currently suitable habitat where the frog has been documented within the last 10 years, but is apparently now absent or 2) suitable habitat that is (a) within 1 mile overland of occupied habitat, (b) within 3 miles along an ephemeral or intermittent drainage from occupied habitat, or (c) within 5 miles along a perennial stream from occupied habitat. We believe that the grazing guidance criteria for likely to be occupied sites and site specific information can help to determine with reasonable certainty where Chiricahua leopard frogs occur on those areas that have not been surveyed.

Alpine Allotment – The Alpine Allotment contains portions of the Upper Blue River, Upper Black River, and Upper San Francisco River 5th Code Watersheds. The Addendum to the BAE for this allotment notes that “there have not been any surveys conducted specifically for this species on this allotment. Therefore, it is not known if this species occurs within the allotment boundaries, however, the allotment contains springs, cienegas and streams that drain into the San Francisco River, Coleman Creek, and Coyote Creek.” There is a 1971 historical documentation of frogs at Luna Lake which is approximately 1 mile away from the allotment (overland distance) (survey data from Frost and Platz, 1973) (Sredl *et al.* 1994). However, the upper portion of the San Francisco River is not thought to be occupied at this time by Chiricahua leopard frogs. Additionally, there is a historical documentation of frogs near the allotment on Coleman Creek (Blue River Watershed). In the early 1970's, Frost and Platz found frogs in the Coleman Creek at Bull Canyon (survey data from Frost and Platz 1983) (Sredl *et al.* 1994). In addition, approximately 4.5 miles downstream of the allotment along Coleman Creek, Chiricahua Leopard frogs were confirmed to occur in 2002 by Kim Field of Arizona Game and Fish

Department (AZGFD). This distance is well within the dispersal distance of Chiricahua leopard frogs. Therefore, according to the Grazing Guidance Criteria the Alpine Allotment would be considered to be occupied since it is within 5 miles along a perennial stream from occupied habitat (Coleman Creek).

Beaver Creek Allotment – The Addendum to the BAE for this allotment notes that “there have not been any surveys conducted specifically for this species on this allotment. Therefore, it is not known if this species occurs within the allotment boundaries, however, the allotment contains springs, cienegas and streams that drain into the Blue River.” A rough estimate is that it is approximately 7 miles along Castle Creek to the occupied site at Coleman Creek. It is approximately 7 miles overland distance to the Blue River. The eastern portion of Beaver Creek is part of the Black River watershed. It is over 15 miles along waterways (Beaver Creek and the East Fork of the Black River) to Three Forks. Therefore, the distance from this allotment to a known occupied location would be greater than those cited in the grazing guidance, and we cannot conclude with reasonable certainty that the species is present on the allotment.

Colter Creek – The Addendum to the BAE for this allotment notes that “there have not been any surveys conducted specifically for this species on this allotment. Therefore, it is not known if this species occurs within the allotment boundaries, however, the allotment contains springs, cienegas and streams that drain into the Blue River.” However, the Environmental Assessment notes that Colter Creek is in the Nutrioso Creek watershed. The nearest historical population of frogs existed less than one mile north of the allotment on Nutrioso Creek (early 1970's) (Sredl *et al.* 1994). According to the Final Rule listing the species as threatened, the species is considered to be extirpated from the Little Colorado watershed (67 FR 40790, June 13, 2002). Therefore, we cannot conclude with reasonable certainty that Chiricahua leopard frogs occur on the Colter Creek Allotment.

Coyote-Whitmer Allotment – The Coyote-Whitmer Allotment contains portions of the Upper Blue River, Upper Black River, and Upper San Francisco River 5th Code Watersheds. The Addendum to the BAE for this allotment notes that “there have not been any surveys conducted specifically for this species on this allotment. Therefore, it is not known if this species occurs within the allotment boundaries, however, the allotment contains springs, cienegas and streams that drain into the Blue River.” However, there is a historical documentation of frogs on the allotment. In the early 1970's, Frost and Platz found the species in Coleman Creek at Bull Canyon (survey data from Frost and Platz 1983) (Sredl *et al.* 1994). In addition, approximately three miles downstream of the allotment along Coleman Creek, Chiricahua leopard frogs were confirmed to occur in 2002 by AZGFD. This distance is well within the dispersal distance of Chiricahua leopard frogs mentioned in the grazing guidance.

The eastern section of the Coyote-Whitmer Allotment is part of the Upper Black River watershed. Coyote Creek drains into the North Fork of the East Fork of the Black River. The allotment is approximately 4 miles (overland distance) from Three Forks and five miles along the perennial waterways. This distance is well within the dispersal distance of Chiricahua leopard frogs mentioned in the grazing guidance.

Since no surveys have been conducted on the allotment, but the allotment is within a close proximity to a known occupied site, and meets the occupied guidelines of the grazing criteria, we conclude that the Coyote-Whitmer Allotment is reasonably certain to be occupied by Chiricahua leopard frogs.

Fish Creek – The Addendum to the BAE for this allotment notes that “there have not been any surveys conducted specifically for this species on this allotment. Therefore, it is not known if this species occurs within the allotment boundaries, however, the allotment contains springs, cienegas and streams that drain into the Blue River.” However, the Final Environmental Assessment for Fishhook-Steeple Mesa, Hannagan, and Fish Creek Allotments Grazing Permits says that the “Fish Creek Allotment is within the Upper and Lower Black River 5th Code Watersheds”. Historical survey records do not indicate presence of the species in the area. The known occupied site of Chirichua Leopard Frogs at Three Forks is approximately 15 miles away (overland distance) and longer via perennial waterways. Since there are no survey records for this allotment and there is no source population nearby from which the frogs could migrate from, we cannot conclude with reasonable certainty that the species is present on this allotment.

Hannagan – The Addendum to the BAE for this allotment notes that “there have not been any surveys conducted specifically for this species on this allotment. Therefore, it is not known if this species occurs within the allotment boundaries, however, the allotment contains springs, cienegas and streams that drain into the Blue River.” The Final Environmental Assessment for Fishhook-Steeple Mesa, Hannagan, and Fish Creek Allotments Grazing Permits says that the “Hannagan Allotment is within the Upper and Middle Blue River, and Upper and Lower Black River 5th Code Watersheds”. The nearest historical population of frogs existed approximately four miles away (overland distance) at Crabtree Creek in the Eagle Creek Watershed (1988 survey by Arizona Game and Fish Department (AZGFD)) (Sredl *et al.* 1994). Hannagan Allotment is approximately 6 miles away from the Blue River. However, it is much further to a known occupied Chiricahua leopard frog site along the Blue River. Three Forks, the closest known frog population in the Black River Watershed is over 20 miles away. Therefore, the distance from this allotment to a known occupied location would be greater than those cited in the grazing guidance criteria. We therefore cannot conclude with reasonable certainty that the species is present on the allotment.

Sprucedale-Reno – The Addendum to the BAE for this allotment notes that “there have not been any surveys conducted specifically for this species on this allotment. Therefore, it is not known if this species occurs within the allotment boundaries, however, the allotment contains springs, cienegas and streams that drain into the Black River.” The nearest historical population of frogs existed approximately three miles away (overland distance) at Crabtree Creek (1988 survey by AZGFD) (Sredl *et al.* 1994). Three Forks is approximately ten miles away from this allotment along the East Fork of the Black River. Therefore, the distance from this allotment to a known occupied location would be greater than those cited in the grazing guidance criteria. Thus, we cannot conclude with reasonable certainty that the Chiricahua leopard frog is present on this allotment.

Grandfather – The Addendum to the BAE for this allotment notes that “there have not been any surveys conducted specifically for this species on this allotment. Therefore, it is not known if this species occurs within the allotment boundaries, however, the allotment contains springs, cienegas and streams that drain into the Black River.” Three Forks is approximately ten miles away from this allotment along the East Fork of the Black River. Therefore, the distance from this allotment to a known occupied location would be greater than those cited in the grazing guidance criteria. We therefore cannot conclude that the Chiricahua leopard frog is present on this allotment.

We conclude that the incidental take statement for the above mentioned opinion needs to be modified to be in accordance with the court’s view of biological opinion standards. Therefore, the following language replaces the entire Amount or Extent of Take statement beginning on page 28 of the conference opinion. The Reasonable and Prudent Measures will remain the same. However, Term and Condition 1.1 will be replaced and Terms and Conditions 4.3 through 4.6 on page 40 of the conference opinion will be deleted. The following details the changes being made to the conference opinion.

I. AMOUNT OR EXTENT OF TAKE

Historically, Chiricahua leopard frogs have been documented from aquatic habitat across the A-S. Along the Blue River, surveys for Chiricahua leopard frogs resulted in detections beginning in the 1970s and continuing into 2002. However, these surveys have not been regular or thorough. With respect to the Blue River system in its entirety, Chiricahua leopard frogs have been located as far north as the Jackson Box area, and as far south as Juan Miller Crossing. Chiricahua leopard frogs have also been located on the Upper Campbell Blue drainage. Multiple records exist throughout the upper third of the Blue River. The Blue River is a continuous system, with numerous tributaries. Additional sources of habitat throughout the proposed action area include stock tanks, ponds or lakes, and springs. Chiricahua leopard frogs can migrate for up to five miles (Seburn et al. 1997). Due to frog detections, the continuity and availability of habitat, and the dispersal abilities of the frog, the FWS concludes that it is likely that the Blue River is occupied.

With respect to the San Francisco River, Chiricahua leopard frogs are known to have occurred historically. They have not been reported in the mainstem of the San Francisco River in Arizona since 1995; however, surveys have not been thorough. Chiricahua leopard frogs are extant in the mainstem of the San Francisco River in New Mexico, and the Blue River is a tributary to the San Francisco River. The action area for this consultation only concerns the upper portion of the San Francisco River. The last known occurrence of Chiricahua leopard frogs was at Luna Lake in the early 1970's. We cannot assume with certainty that the upper portion of the San Francisco River in Arizona is occupied by Chiricahua leopard frogs.

Chiricahua leopard frogs also occur in the North Fork of the East Fork of the Black River at Three Forks (2001 survey data). Furthermore, Chiricahua leopard frogs were translocated into

Concho Bills Springs in 2000 and 2001. Due to frog detections, the continuity and availability of habitat, and the dispersal abilities of the frog, the FWS concludes that it is likely that the Black River and the North and East forks of the Black River are occupied.

Given the presence of Chiricahua leopard frogs within the San Francisco River, Blue River, and Black River, and the presence of suitable habitat within the action area, we conclude that Chiricahua leopard frogs are likely to occur during the life of the project in some portions of the proposed action area. The occurrence of Chiricahua leopard frogs in some portions of the project area is questionable due to the lack of surveys, but documentation provided by the Forest Service and other sources of information lead us to conclude that Chiricahua leopard frogs are likely present on the Alpine and Coyote-Whitmer allotments.

The Beaver Creek, Colter Creek, Fish Creek, Hannagan, Sprucedale-Reno, and Grandfather allotments are also likely to support frogs, as frogs have been found in these areas in the past, and no regular, repeated surveys have been completed recently. However, although some of these allotments are likely occupied, the lack of survey data and the distance from known locations does not lead to guidance criteria expectation of occupied, nor allow us to conclude that take will occur.

It is difficult to quantify the number of individual frogs taken because: (1) dead or impaired individuals are difficult to find and losses may be masked by seasonal fluctuations in environmental conditions; (2) the status of the species could change over time through immigration, emigration, and loss or creation of habitat; and (3) adequate surveys have not been completed to determine the numbers of Chiricahua leopard frogs in areas potentially affected by the proposed action. However, the FWS anticipates the following forms of take over the life of the project for the Alpine and Coyote-Whitmer allotments only:

- 1. Direct mortality or injury of all frogs at all livestock tanks where maintenance activities result in significant disturbance at the tank (e.g., dredging or silt removal, major repair of berms) and frogs are present during the maintenance activity;*
- 2. Direct mortality or injury through trampling, destruction of egg masses, small tadpoles, and metamorphosing frogs at all stock tanks at which cattle have access to the tank from March through October; trampling and destruction of small tadpoles and overwintering frogs at all stock tanks where cattle have access from November through February;*
- 3. Harm or harass of frogs at one locality (livestock tank, stream, or spring) due to unintentional introduction of chytridiomycosis resulting from cattle moving among frog populations or transport of water or mud from aquatic sites by ranch hands, or other activities associated with the grazing management program.*
- 4. Harm or harass including lost productivity of Chiricahua leopard frogs due to loss of bankline and emergent cover at three Chiricahua leopard frog sites where cattle have*

access to banklines of occupied frog habitats. Harm due to sedimentation of pools or other forms of habitat degradation at three Chiricahua leopard frog sites where cattle are contributing to erosion in watersheds upstream of occupied Chiricahua leopard frog habitat.

5. *Harassment of Chiricahua leopard frogs at three tanks due to unintentional movement of nonnative bullfrogs, fish, salamanders, or crayfish to a tank occupied by Chiricahua leopard frog.*
6. *Harassment of Chiricahua leopard frogs at three livestock tanks where cattle have access to the tank and fouling of the water occurs to such an extent that conditions become toxic to frogs.*

Occupancy of suitable habitat by Chiricahua leopard frogs is dynamic. Discovery of new populations, recolonizations of extirpated sites, and extirpation of occupied sites are common occurrences with this species; therefore, we expect that over the life of this action, sites where take may occur (sites occupied by Chiricahua leopard frogs) will change across the allotments. The above anticipated take takes into account the dynamic nature of frog occupancy; thus, we do not believe reinitiation is needed whenever a new population of Chiricahua leopard frogs is found, or frogs in a stockpond are periodically absent.

If, during the course of the action, the amount or extent of the incidental take anticipated is exceeded for Chiricahua leopard frog, the Forest Service must reinitiate consultation with the AESO immediately to avoid violation of section 9. Operations must be stopped in the interim period between the initiation and completion of the new consultation if it is determined that the impact of the additional taking will cause an irreversible and adverse impact on the species, as required by 50 CFR 402.14(i). An explanation of the causes of the taking should be provided to the FWS.

In addition, Term and Condition 1.1 on page 30 of the conference opinion is replaced as follows:

- 1.1 *Forest Service shall continue to submit an annual report to us that, at a minimum, briefly summarizes for the previous calendar year: (1) The implementation of terms and conditions and conservation recommendations, and (2) documentation of take or monitoring for listed species; if Chiricahua leopard frogs are found on the Forest in areas outside of those currently known, you shall notify us (by telephone, electronic transmission, facsimile, or letter) within 10 calendar days of your knowledge of these site(s) and propose a site plan to minimize take at the new location. The report shall also make recommendations for modifying or refining these terms and conditions to enhance protection of the Chiricahua leopard frog or reduce needless hardship on you or your permittee(s).*

Finally, Terms and Conditions 4.3 through 4.6 on page 40 of the conference opinion will be deleted.

Please note the reinitiation clause remains the same. Reinitiation of formal consultation is required if the amount or extent of incidental take is exceeded, if new information reveals effects of the action that may impact listed species or critical habitat in a manner or to an extent not considered in this opinion, if the action is subsequently modified in a manner or to an extent that causes an effect to the listed species or critical habitat that was not considered in this opinion, or if a new species is listed or critical habitat designated that may be affected by this action.

As stated in our July 18, 2002, letter to you, we believe that other sections of this biological opinion may no longer be current. We still believe that the best remedy to this would be reinitiation of this consultation to address these concerns. If the Forest has any questions or concerns about the reinitiation process or would like further information please do not hesitate to contact us.

We appreciate your cooperation and patience in this process. If we can be of further assistance, please contact Jennifer Graves (x232) or Debra Bills (x239) at the Arizona Ecological Services Field Office. Please refer to the numbers on page 1 of this document in future correspondence concerning this consultation.

Sincerely,

/s/ Steven L. Spangle
Field Supervisor

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (ARD-ES)
District Ranger, Alpine Ranger District, Alpine, AZ

John Kennedy, Arizona Game & Fish Department, Phoenix, AZ

LITERATURE CITED

Seburn, C.N.L., D.C. Seburn, and C.A. Paszkowski. 1997. Northern leopard frog (*Rana pipiens*) dispersal in relation to habitat. *Herpetological Conservation* 1:64-72.

Sredl, M.J., S.G. Seim, D.L. Waters, M.J. Goode, J.M. Howland. 1994. Apache-Sitgreaves National Forests Riparian Amphibians and Reptiles Survey: Locality Information and Survey Results For 1992 and 1993 Field Season. Arizona Game and Fish Department, Nongame and Endangered Wildlife Program, Technical Report 55.

APPENDIX A

Alpine Eight Allotment Chiricahua Leopard Frog Conversion



