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AESO/SE
02-21-05-F-0847
02-21-98-F-0399

May 11, 2005

Ms. Jeanine A. Derby, Forest Supervisor
Coronado National Forest
300 West Congress Street, 6th Floor
Tucson, Arizona 85701

Dear Ms. Derby:

On October 6, 2005, we received your October 5, 2005, supplemental biological assessment (BA) and request for reinitiation of formal consultation on the effects of 10-year allotment management plans (AMPs) for the HQ, Campini, and Blacktail livestock grazing allotments on the threatened Chiricahua leopard frog (*Rana chiricahuensis*) (CLF), the endangered Sonora tiger salamander (*Ambystoma tigrinum stebbinsi*) (STS), and the threatened lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*) (LLNB), in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq*.) (Act). These species were most recently addressed in the October 24, 2002, Final Biological and Conference Opinion on Continuation of Livestock Grazing on the Coronado National Forest (02-21-98-F-0399-R1) (2002 BO) (see consultation history). Our concurrence remains the same for the endangered northern aplomado falcon (*Falco femoralis septentrionalis*) (NAF) as consulted on in the 2002 BO for these three allotments.

These three allotments are located between the Huachuca Mountains and the San Rafael Valley in the Huachuca Ecosystem Management Area (EMA) of the Sierra Vista Ranger District, Coronado National Forest. You are requesting reinitiation of consultation for these three allotments because the proposed action for their management has changed; and the AMPs will remain, with minor changes, in effect for a longer time (six years longer) than was described in the 2002 BO. Effects to the listed species noted above remain measurable and reasonably certain to occur.

This BO is based on the 2002 BO and its supporting administrative record, information provided in your supplemental BA (October 5, 2005), telephone and electronic conversations between our staffs, and other sources of information. References cited in this biological opinion are not a complete bibliography of all literature available on livestock grazing, species of concern, or other subjects considered in this opinion. A complete administrative record of this consultation is on file in this office.

Consultation History

- July 26, 1999: We issued a BO (02-21-98-F-0399) for On-going and Long-Term Grazing on the Coronado National Forest for all allotments.

- October 24, 2002: We issued a reinitiated BO (02-21-98-F-0399-R1) for the Continuation of Livestock Grazing on the Coronado National Forest for all allotments.

- September 27, 2004: We issued a reinitiated BO (02-21-98-F-0399-R3) for Livestock Grazing on the CNF for all allotments (with a concurrence for all allotments regarding proposed MSO critical habitat).

- January 7, 2005: We issued a reinitiated BO (02-21-98-0399-R4) for Livestock Grazing on the CNF for the Duquesne, Hayfield, and Lochiel 10-year AMPs.

- November 28, 2005: We sent you the DRAFT of this BO (22410-2006-F-0082).

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

You propose to authorize continued livestock grazing and develop 10-year AMPs for the HQ, Campini, and Blacktail allotments. Grazing on the allotments will be authorized under the following conditions:

- Forage utilization on the allotments will be limited to 45 percent of current year's growth of key species in key areas.

- Management on each allotment will ensure that pastures receive periodic growing season rest.

- Range improvements will be constructed to the degree necessary to achieve management objectives and move the project area toward desired condition.

- Provisions for the protection and recovery of threatened and endangered species will be incorporated in accordance with the Land Resource Management Plan (LRMP) and species' recovery plan objectives.

The proposed action incorporates management flexibility by providing a range of allowable use expressed as animal unit months (AUMs). Initial stocking rates are set based on existing resource and infrastructure conditions and are supported by production and utilization data collected during the past 10 years. We compared the permitted numbers of cow/calf units in the 2002 BO to your proposed action for this reinitiation for each allotment. You are proposing to reduce permitted cow/calf units (head) in Blacktail by 23, in Campini by 50, and increase in HQ by 7, for a total overall reduction of 60 head across these three allotments. All three allotments will remain as year-long grazing, with rotation through pastures and seasonal rest.

You are also proposing range projects for these three allotments, summarized in Table 1. Range projects were not included for these three allotments in the 2002 BO, but range projects in general, and for other allotments, were addressed in great detail in the 2002 BO. Minimization measures for those described projects are incorporated and referenced herein, as appropriate for the CLF, STS, and LLNB.

Table1. Proposed Range Projects for the HQ, Campini, and Blacktail allotments.

Allotment	Proposed Action	Purpose/Objective
All	Continue to authorize grazing. Develop Allotment Management Plans	Balance permitted use with capacity and to provide long-term management to achieve desired conditions.
HQ	Develop upland waters in the two primary pastures by piping water from an existing well.	The allotment is reliant on dirt tanks, which requires the permittee to haul water in some years. Permanent waters would improve distribution and reduce overuse of some areas.
HQ	Construct erosion control structures to arrest and rehabilitate head cuts.	Erosion cuts are threatening an otherwise functioning gentle drainage system. Structures would improve soil retention and vegetation cover.
Campini	Cross-fence the large Mesa pasture to create 2 pastures. Construct a water lot around George Tank to water both pastures.	An additional pasture would increase deferment time for all pastures and create 3 pastures of approximately equal capacity. This would reduce the duration of grazing in any given pasture, promote plant vigor, and increase management flexibility.
Campini	Realign the fence separating Heifer and Lower pastures.	This would increase capacity and improve distribution in the Heifer pasture by allowing the use of forage that is not used by cattle in Lower pasture and reducing grazing intensity in other areas.
Blacktail	Fence an existing spring in Sundown Canyon and pipe water to a nearby location.	This would protect aquatic and riparian resources at the spring site and provide reliable water for livestock.

We received a copy of your detailed and descriptive proposal on November 15, 2005, explaining the head cut repair process for the three cuts on the HQ allotment. As noted in Table 1, above, head cuts in the HQ allotment are to be repaired by placement of erosion control structures in the head cuts. This will involve placing about 190 cubic yards of rock, held together and in place by woven wire fencing, within the active cuts. These structures will hold and help stabilize soils. Vehicles hauling rock and supplies will access the allotment on an existing two-track road and drive about 100 feet off the road to each head cut.

Minimization measures for all range projects for listed species will be consistent with applicable LRMP standards and guidelines and the terms and conditions and conservation measures of existing BOs and concurrences. Livestock movement through pastures (frequency and timing)

will be determined by the results of your monitoring of livestock use levels and resource objectives. We are consulting on the highest permitted numbers of livestock and the longest permitted grazing use proposed, remaining aware that you may choose to manage the allotments at fewer numbers and lesser durations.

Livestock grazing and management actions are described in much greater detail in the 2002 BO (02-21-98-F-0399-R1) and in your supplemental BA. Refer to these for a more complete discussion of Forest-wide livestock grazing.

Monitoring

Your proposed action includes monitoring that you will use to determine whether management is being properly implemented, and whether the actions are effective at maintaining or achieving desired conditions. Monitoring will include utilization monitoring in designated key areas. If monitoring indicates that desired conditions are not being achieved, changes in management may be proposed. Such changes may include administrative decisions such as the specific number of livestock, specific dates for grazing, class of animal, or modifications in pasture rotations, but will not exceed the limits for timing, intensity, duration, and frequency defined for the proposed action and analyzed herein.

If monitoring demonstrates that management options beyond the scope of this analysis are warranted or if significant new information demonstrates that there may be effects not previously considered, further analysis and reinitiation of section 7 consultation will occur, if necessary. Additional improvements not disclosed and analyzed herein will require site-specific analysis and decisions.

You agree to continue to monitor incidental take of listed species and report any mortality along with implementation of terms and conditions in your annual report to us. Incidental take monitoring will remain as was originally consulted on in the 2002 BO for the CLF, STS, and LLNB.

Conservation measures

General and species-specific conservation measures identified in the 2002 BO are in effect on these allotments and will continue to be implemented under the proposed action, as appropriate. These measures are incorporated by reference. In addition, prior to any ground-disturbing construction activities, you will survey for sensitive species (including threatened and endangered species), as appropriate, and avoid effects to detected individuals.

STATUS OF THE SPECIES

Chiricahua leopard frog

The status of the CLF remains similar to that described in the 2002 BO (available on our website at http://arizonaes.fws.gov, under Document Library; Biological Opinions), with the addition of some recovery actions and planning, and apparent declines in some portions of the species' range. Recovery efforts in 2004 produced a Safe Harbor Agreement (SHA) with the Malpai Borderlands Group (southeastern Arizona). Efforts continue to complete an Altar Valley SHA

and a statewide SHA by 2006. Chiricahua leopard frogs were translocated to Sierra Blanca Lake in the White Mountains, and a refugium population was established on a ranch in the Baboquivari Mountains in 2004. A draft recovery plan is in development and is anticipated to be available for public review in Spring 2006.

Sonora tiger salamander

The status of the STS remains similar to that described in the 2002 BO (available on our website at http://arizonaes.fws.gov, under Document Library; Biological Opinions). The species appears to co-exist with well-managed livestock.

Lesser long-nosed bat

The status of the LLNB remains similar to that described in the 2002 BO (available on our website at http://arizonaes.fws.gov, under Document Library; Biological Opinions). One large post-maternity roost site is known to exist in the Patagonia Mountains. Numerous mines, adits, and caves exist in the Huachuca Mountains, and significant roosts exist at Coronado National Memorial and Fort Huachuca.

ENVIRONMENTAL BASELINE

In the years between 2002 and 2005, soil, water, and vegetation were examined and analyzed in key areas of these three allotments. The environmental baseline remains similar to that described in the 2002 BO and is included herein.

Chiricahua leopard frog

Stock tanks and a spring exist in the project area. Recent CLF surveys have not detected CLF, but have detected bullfrogs. Additional water projects proposed for these allotments may create potential habitats, but it is very likely they will be occupied by bullfrogs, precluding any CLF re-colonization.

Sonora tiger salamander

Habitat (stock tanks) likely to be inhabited by STS exists on the three allotments. Additional water projects are proposed for all three allotments and these may be inhabited by STS over time. We note that bullfrogs currently occupy many of the tanks on these three allotments. This may affect STS reproduction or survival but is not expected to affect STS occupancy of tanks.

Lesser long-nosed bat

LLNB roost sites are known from the Patagonia and Huachuca mountains and likely forage in or pass through the three allotments; however, no roosts are known from the allotments. Paniculate agaves, potential forage plants for LLNB, appear to be absent on the HQ allotment and are uncommon on the Campini and Blacktail allotments. No evidence of livestock or other herbivory on agave flower stalks was observed during an inspection of the Campini and Blacktail allotments in September 2005.

EFFECTS OF THE PROPOSED ACTION

Chiricahua leopard frog

CLF have been surveyed for and not detected at the stock tanks and spring in the project area; bullfrogs have been and continue to be detected in tanks and the spring. Bullfrog presence renders potential sites unsuitable for CLF habitation and re-colonization. As part of the proposed action, the Forest will continue to implement the terms and conditions of the 2002 BO, along with the STS pond maintenance guidelines, which should insure detection of any extant frogs and insure maintenance of suitable habitats. If CLF occur on these allotments during the term of this action, effects will be as described in our 2002 BO.

Sonora tiger salamander

All but one record for the STS are from the upper Santa Cruz and San Pedro watersheds, which are located in the San Rafael Valley and nearby mountains. On these three allotments, STS have been recorded from at least seven sites, all of which are ponds maintained for livestock waters. Sites are generally less than 45 percent slope and between 5,200 feet and 6,200 feet in elevation. All stock ponds that hold water at least from January through June within the three allotments represent potential STS habitat. STSs have persisted in the presence of livestock grazing for many years. Occupied habitats are restricted to earthen stock tanks that are maintained for livestock. Stock pond management and maintenance guidelines are being implemented on the allotments as part of the STS recovery plan and these guidelines will continue to be implemented.

The 2002 BO determined that livestock management on the HQ, Campini, and Blacktail allotments was likely to adversely affect the STS. This determination was partly based on the presumed presence of unsatisfactory soils and degraded watersheds throughout the project area. Recent (2005) soil condition assessments show this is not the case; rangeland vegetation and soil condition are good throughout the project area and are not now thought to be adversely affecting STS habitats, especially in light of the implementation and continuation of the STS pond management and maintenance guidelines. Incidental take of STS is still likely to occur on all three allotments due to trampling, stock tank maintenance, disease transmission, and other factors, as described in our 2002 BO.

You plan to repair erosive head cuts on the HQ allotment, which should reduce sedimentation into STS-occupied habitats downstream in the San Rafael Valley. While these changes may still affect any STS that inhabit stock tanks on the allotments, fencing waters and a broader distribution of livestock on the uplands is expected to redistribute and may reduce effects to STS in allotment stock tanks, depending on the location of STS and the activity at those tanks.

Lesser long-nosed bat

Because agaves are so scarce and scattered on these three allotments, none are likely to suffer effects from water developments (fences, head cut repair, pipelines, and water trough placement). The 2002 BO conservation measure states that no more than one percent of agaves within 0.5 mile of a range project will be destroyed; this remains in effect for this reinitiation.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in this BO. Human traffic through the action area by undocumented migrants and smugglers has increased since 2002, with associated increased effects to the land, including a tangled network of illegal trails, human-caused wildfires, and accumulated large amounts of trash, ranging from diapers and clothes to plastic, glass, and metal. Otherwise, the analysis of cumulative effects remains unchanged from the 2002 BO.

CONCLUSION

Chiricahua leopard frog

After reviewing the anticipated effects of the revised proposed action and conservation measures for the proposed project, the environmental baseline for the action area, the current status of the CLF, and the cumulative effects, we affirm our previous conclusion from the 2002 BO that the proposed action is not likely to jeopardize the continued existence of the CLF. No critical habitat has been designated, thus none will be affected. We base our determination on the rationale presented in our 2002 BO and the following:

1. Livestock grazing effects on any CLF and their habitats on the allotments (stock tanks and associated waters) will be further reduced by partial or total fencing of several tanks and the creation and re-routing of existing waterlines for additional waters in the uplands.
2. Reduced stocking rates and improved overall dispersal of livestock are anticipated to reduce heavy livestock use at stock tanks and springs.
3. No CLF were detected on the allotments during recent surveys.

Sonora tiger salamander

After reviewing the anticipated effects of the revised proposed action and conservation measures for the proposed project, the environmental baseline for the action area, the current status of the STS, and the cumulative effects, we affirm our previous conclusion from the 2002 BO that the proposed action is not likely to jeopardize the continued existence of the STS. No critical habitat has been designated, thus none will be affected. We base our determination on the rationale presented in our 2002 BO and the following:

1. Livestock grazing effects on STS and its habitats on the allotments (stocktanks and associated waters) will be further reduced by partial or total fencing of several tanks, the creation and re-routing of existing waterlines for additional waters in the uplands, and head cut repair.
2. Reduced stocking rates and overall redistribution of livestock is anticipated to reduce effects of livestock use at stocktanks.

Lesser long-nosed bat

After reviewing the anticipated effects of the proposed action and conservation measures for the proposed project, the environmental baseline for the action area, the current status of the LLNB,

and the cumulative effects, we affirm our previous conclusion from the 2002 BO that the proposed action is not likely to jeopardize the continued existence of the LLNB. No critical habitat has been designated, thus none will be affected. We base our determination on the rationale presented in the 2002 BO, and the following:

1. Agaves do not appear to exist on the HQ allotment and are very uncommon on the Blacktail and Campini allotments.
2. No LLNB roosts occur on the allotments, and although roosts occur in the nearby mountains, and mines, shafts, audits, and caves occur in the Huachuca Mountains, none will be affected by the proposed action.
3. Per the 2002 BO, should effects to agaves be unavoidable in a range project, no more than one percent of agaves within 0.5 mile of the project will be injured or destroyed.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is defined (50 CFR 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined (50 CFR 17.3) as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. "Incidental take" is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

AMOUNT OR EXTENT OF TAKE ANTICIPATED

Chiricahua leopard frog

CLF have not been detected on these allotments; bullfrogs occupy the stock tanks and the spring in the project area. Without a reasonable expectation of occurrence in these allotments, we believe there will be no take of CLF.

Sonora tiger salamander

Because STS occur in stocktanks on these three allotments, we anticipate the amount and extent of incidental take will remain the same as described in the 2002 BO (pages 50 and 51).

Lesser long-nosed bat

Consistent with the 2002 BO, and for the reasons given in that BO, we do not anticipate incidental take of LLNB.

EFFECT OF THE TAKE

Sonora tiger salamander

We determine that this level of anticipated take is not likely to jeopardize the continued existence of the STS.

REASONABLE AND PRUDENT MEASURES AND TERMS AND CONDITIONS

All reasonable and prudent measures and their accompanying terms and conditions remain as provided in the 2002 BO for the STS.

CONSERVATION RECOMMENDATIONS

No additional conservation recommendations beyond those described in the 2002 BO for the CLF, STS, and LLNB are provided.

Disposition of Dead or Injured Listed Species

Upon locating a dead, injured, or sick listed species, your initial notification must be made to our Law Enforcement Office, 2450 West Broadway Road, Suite 113, Mesa, Arizona 85202 (telephone: 480/835-8289) within three working days of its finding. Written notification must be made within five calendar days and include the date, time, and location of the animal, a photograph if possible, and any other pertinent information. The notification shall be sent to the Law Enforcement Office with a copy to this office. Care must be taken in handling sick or injured animals to ensure effective treatment and care and in handling dead specimens to preserve the biological material in the best possible state.

REINITIATION NOTICE

This concludes reinitiation of formal consultation on the actions outlined in your request. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of your action that affects listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) your action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

We appreciate your efforts to identify and minimize effects to listed species from this project. For further information please contact Thetis Gamberg (520) 670-6150 (x 231) or Jim Rorabaugh (602) 242-0210 (x 238).

Please refer to consultation number 22410-2006-F-0082 in future correspondence concerning this project.

Sincerely,

/s/ Steven L. Spangle
Field Supervisor

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (ARD-ES)
Field Supervisor, Fish and Wildlife Service, Albuquerque, NM
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ
Assistant Field Supervisor, Fish and Wildlife Service, Flagstaff, AZ
Resource Assistant, U.S. Forest Service, Coronado National Forest, Tucson, AZ*
(Attn: Paula Medlock) (*e-mail transmission –hard copy not required. Pmedlock@fs.fed.us)

Bob Broscheid, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ

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