United States Department of the Interior

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In Reply Refer to:
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November 6, 2018

Memorandum

To: Field Manager, Hassayampa Field Office, Bureau of Land Management, Phoenix, Arizona

From: Field Supervisor, Arizona Ecological Service Field Office, Phoenix, Arizona

Subject: Concurrence for the reissuance of the Horseshoe Allotment grazing lease

Thank you for your correspondence dated October 1, 2018, which we received on October 4, 2018. This letter documents our review of the proposed renewal of the Horseshoe Allotment Grazing Authorization within Yavapai County, Arizona, in compliance with section 7 of the Endangered Species Act of 1973 (ESA) as amended (16 U.S.C. 1531 et seq.). The Horseshoe Allotment consists of approximately 32,000 acres 50 miles north of Phoenix, Arizona. The action area includes portions of Silver Creek, Indian Creek, Bishop Creek, and parts of the Agua Fria River drainage. Your letter concluded that the proposed project "may affect, but is not likely to adversely affect" the threatened western yellow-billed cuckoo (cuckoo) (*Coccyzus americanus*) and its proposed critical habitat, the threatened northern Mexican gartersnake (gartersnake) (*Thamnophis eques megalops*) and its critical habitat, the endangered Gila chub (*Gila intermedia*) and its designated critical habitat, and the endangered Gila topminnow (*Poeciliopsis occidentalis*). We concur with your determinations and provide our rationales below.

In consideration of this consultation, it should be noted that the Gila chub was formerly considered a separate taxonomic entity but is now recognized, along with headwater chub and roundtail chub, as a single taxonomic species – the roundtail chub (*Gila robusta*) (82 FR 16981). We intend to reevaluate the status of the Gila chub; however, until that evaluation is completed and we publish potential proposed and final rules to delist the Gila chub, its legal status remains as an endangered species with designated critical habitat. Our effects analysis in this concurrence reflects this status. Moreover, because we have not completed a range-wide status assessment of *Gila robusta*, we briefly provide below general life history and habitat information about the entity formerly known as *Gila intermedia*.

DESCRIPTION OF THE PROPOSED ACTION

A complete description of the proposed action is included in your October 1, 2018, biological assessment (BA) and the accompanying maps sent to our office, as well as supplemental information clarifying the proposed action through emails and phone conversations.

To support the desired future conditions and goals laid out in the Bureau of Land Management's (BLM) Resource Management Plan and the Coordinated Resource Management Plan (CRMP) and to comply with federal regulations, the BLM is adjusting the terms of the Horseshoe Allotment grazing lease prior to its renewal to facilitate the management of resources.

The Horseshoe Allotment is approximately 32,000 acres, is located within the Agua Fria National Monument, and consists of the North and South River, Boone and Double Tank, Indian, New Mill, Joe's Hill, Lousy, and Silver Creek Pastures. The lease renewal will allow grazing on the Horseshoe Allotment for ten years and for up to 4,572 animal unit months, which is equivalent to 381 cow/calf annually. Currently, the allotment is achieving desired resource conditions of upland and riparian sites on all the pastures. However, because of the drought and Cave Creek Complex Fire, some riparian sites, especially Silver Creek, which experienced heavy sediment loads, are not properly functioning. The grazing strategy on the Horseshoe Allotment pastures applies the following conservative utilization thresholds to maintain or improve the watershed function of these riparian and upland communities:

Table 1: Allowable use on the Horseshoe Allotment

Vegetation	**Use Threshold**
Upland Herbaceous Species	30-40% of current year's growth
Upland Browse Species	50% of current year's growth
Tobosa grass in Key Pronghorn Fawning areas†	Maintain a minimum of 8 inches average stubble height on Tobosa grass during pronghorn fawning season (late March through June).
Riparian Herbaceous Species	Limited to 50% of plant species biomass and maintain 6-8 inches of stubble height for emergent species such as rushes, sedges, cattails, and horsetails measured during grazing season.
Riparian Woody Species	Limited to 40% of leaders browsed on upper third of plants up to six feet tall

The BLM will collect final utilization and stubble height readings at the end of pasture use and at the end of the growing season, each year to ensure vegetation does not exceed thresholds (Table 1). Based on pasture threshold assessments annual authorized use of pastures may vary. However, as long as pastured do not exceed threshold conditions the management of livestock will continue under a selective rest-rotation strategy and will follow a prescribed pasture rotation. The BLM will also measure livestock utilization of important riparian areas within the allotment seasonally, while livestock are in the pasture.

The BLM will inspect riparian pasture fences, including a permanent exclosure fence around a segment of Silver Creek for broken or rotten posts, broken fence wire, or broken or missing stays before allowing livestock into that pasture. They will also inspect fences after moving livestock out of the pasture. The permittee is responsible for fixing any broken fences. The BLM will check riparian fences following high flow events and will carry out bi-annual checks in addition to the permittee's monitoring.

The BLM will also follow its drought policy using the annual seasonal cycle of grazing to determine drought-caused circumstances or resource conditions. This policy has three phases that area assessed annually and they are 1) Pre-Season, 2) Early to Mid-Season, and 2) Late-Season to Post-season. By applying the utilization thresholds, monitoring pasture and exclosure fences, and following the BLM drought policy the proposed project would serve to maintain or improve the watershed function of upland and riparian plant communities, which are already meeting upland health and desired resource conditions.

There is the expectation that once the habitat within Silver Creek recovers that the BLM and partners could reintroduce Gila chub and Gila topminnow. If this occurs, the BLM will reinitiate consultation. Likewise, if the BLM finds that the exclosure fence is not keeping livestock out of Silver Creek or riparian pastures during the growing season then BLM will adjust the fence monitoring or management strategy and consider reinitiating consultation.

Conservation measures

The proposed action includes a variety of conservation measures to manage wildlife and habitat resources on the allotment, especially those associated with Silver and Indian creeks and the Agua Fria River. To prevent year-round grazing at Silver Creek and associated springs, the BLM will construct a permanent exclosure fence. They will also suspend surface water diversions at Indian and Silver creeks and the Agua Fria River to increase surface water flow. Livestock grazing in riparian areas will occur only in the winter non-growing season (November 1-March 1).

The proposed action will reduce the area allowed for grazing, restrict the duration livestock may graze in riparian areas, and implement more conservative use thresholds for herbaceous and woody riparian species. The total length of riparian habitat (combining Silver and Indian creeks, Larry Creek tributary, and the Agua Fria River) on the Horseshoe Allotment is 17 miles. The proposed Silver Creek year-round exclosure will extend for 4.5 miles and encompass 766 acres. The remaining 12.5 miles of riparian area along Indian Creek, Larry Creek tributary, and the Agua Fria River are located in other pastures on the allotment. Larry Creek tributary is inaccessible to livestock due to topographical features. The BLM excluded livestock from Silver Creek year-round, but livestock will have access to the remaining riparian area along the Agua Fria River and Indian Creek during the winter non-growing season. Overall, the proposed action reduces the amount of riparian area available for grazing from 17 to 12.5 miles, a 26% reduction. Fencing materials would be wildlife friendly and built to BLM agency standards. Personnel will build the exclosure fence using power tools such as augers, rock drills, and power saws to trim vegetation along the fence line and install fence posts into rock.

Gila chub and Gila topminnow both occur within the action area in the Larry Creek Tributary.

The Gila chub designated critical habitat occurs along Silver Creek and the Larry Creek Tributary, while there is no Gila topminnow designated critical habitat in the allotment. Silver Creek's surface flow is now mostly absent due to increased sediment from the 2005 Cave Creek Complex Fire and does not currently support Gila chub or Gila topminnow. Within the Larry Creek tributary, Gila chub and Gila topminnow were abundant in 2016. This area is inaccessible to livestock due to terrain. The only Gila chub critical habitat that is accessible to livestock is the 164-foot Silver Creek crossing. The stream channel in this crossing is bedrock and is usually dry both upstream and downstream. Gila chub and Gila topminnow surveys will continue within Silver and Larry Creeks.

The action area also includes cuckoo and gartersnake proposed critical habitat along Indian and Silver creeks and the Agua Fria River. The proposed action will limit livestock use of riparian pastures along these three streams to the winter non-growing season (November 1-March 1) within the Horseshoe Allotment, benefitting 12.5 miles of riparian habitat. The cuckoo has been known to breed during the summer months in areas surrounding the Agua Fria River, Indian Creek, and Silver Creek as recent as 2014. There have been no documented occurrences of the northern Mexican gartersnake in the action area; yet the gartersnake may occur within the broader Agua Fria drainage (last sighting in the Agua Fria drainage in 1993). With the exception of Larry Creek, most all other creeks and drainages in the allotment contain non-native fish, which likely affects gartersnake presence.

DETERMINATION OF EFFECTS

We concur with your determination that the proposed action "may affect, but is not likely to adversely affect" the western yellow-billed cuckoo, Gila chub, Gila topminnow, or the northern Mexican gartersnake and associated designated or proposed critical habitat for the following reasons:

Gila chub and critical habitat

- Occupied Gila chub habitat and critical habitat in Larry Creek is inaccessible to livestock due to terrain. Therefore, there will be no direct effects to Gila chub and effects to the primary constituent elements (PCEs) of critical habitat in Larry Creek will be insignificant and discountable.
- Silver Creek does not currently support Gila chub due to reduced surface flow and increased sediment from the 2005 Cave Creek Complex Fire. The new exclosure will prevent livestock from entering Silver Creek where Gila chub used to occur; therefore, effects to Gila chub in Silver Creek are discountable due the proposed exclosure fence.
- Gila chub are absent at the Silver Creek crossing due to the lack of surface flow. In addition, the Silver Creek crossing consists of hardened bedrock preventing increased sedimentation farther downstream where Gila chub could occur. Therefore, continued livestock use of the 164-foot wide Silver Creek crossing will not cause direct effects to Gila chub or its habitat, and any indirect effects to the chub or habitat located downstream would be insignificant.
- The upland range condition within the allotment is meeting the BLM's health and resource standard condition. As a result, proposed use and thresholds should maintain or improve current conditions for the Gila chub and its critical habitat.

- The BLM excluded livestock from nearly all of Silver Creek within the allotment; therefore, there will be insignificant effects to perennial pools and runs between pools (PCE 1), water temperature (PCE 2), water quality (PCE 3), invertebrate food base (PCE 4), and cover in and around the water channel (PCE 5). In addition, we do not anticipate that installation of the exclosure fence, which includes a water gap fence, will hinder or alter the natural flow of the stream (PCE 7).

Gila topminnow and critical habitat

- Gila topminnow occupy Larry Creek, which is inaccessible to livestock due to terrain; therefore, there will be no direct effects to individual fish from livestock at this location.
- Silver Creek, due to loss of surface flow from sediment following the 2005 Cave Creek Complex Fire, likely does not support Gila topminnow. Therefore, there are unlikely to be any direct effects to Gila topminnow from livestock use.
- The BLM excluded livestock from Silver Creek; therefore, there are no direct effects to potential habitat from the proposed action.
- Livestock use of the Silver Creek crossing is not expected to cause direct or indirect effects to Gila topminnow because (except during high flow events) Gila topminnow do not currently occur in Silver Creek and any increased sediment from this crossing will likely be immeasurable due to the small area that cattle are able to access.
- The upland range condition within the allotment is meeting the BLM's health and resource standard condition. As a result, proposed use and thresholds should maintain or improve current conditions for the Gila topminnow and its habitat.

Yellow-billed cuckoo and proposed critical habitat

- Installation of the exclosure fence on Silver Creek, and livestock grazing on the Agua Fria River and Indian Creek will occur when cuckoos are not present in Arizona. Because cuckoos will not be present, these activities will not result in any direct effects to the species from these activities.
- Livestock use of riparian pastures during the winter non-growing season will result in insignificant effects to the cuckoo and its habitat because livestock access to these pastures during the non-growing season will limit grazing impacts to riparian plant growth and regeneration. Monitoring of the riparian vegetation utilization thresholds will ensure that the proposed action minimizes effects to vegetation and habitat function.
- Restricting livestock access to riparian areas during the winter non-growing season will limit grazing effects to the abundance, distribution, and recruitment of riparian plants (PCE 1 and 3) and presence of insect species (PCE 2) resulting in insignificant effects to cuckoo proposed critical habitat. In addition, limiting livestock use of the riparian pastures to the non-growing season will result in insignificant effects to dynamic hydrologic river processes (PCE 3) by reducing effects to riparian plants species and associated stream function.
- Installation of the Silver Creek exclosure fence will occur outside of the riparian area; therefore, we do not anticipate any adverse effects to cuckoo proposed critical habitat plant species (PCE 1), insect populations (PCE 2), or hydrologic processes (PCE 3).

Northern Mexican gartersnake and proposed critical habitat

- At this time, we do not think that northern Mexican gartersnakes occur in the area, or if they are present, they occur at very low numbers due to the lack of habitat (no perennial water, harmful nonnatives). Therefore, there should be no direct effects to gartersnakes from the proposed action. Should any gartersnakes occur, we think that direct effects from livestock are unlikely due to the gartersnakes secretive behavior and because livestock will only have access to riparian areas during the winter months when gartersnakes are less likely to be surface active.
- The proposed fence installation will result in insignificant and discountable effects because the BLM intends to build the fence outside of the riparian area, in dry bedrock where there is no riparian vegetation.
- Restricting livestock access to riparian areas to the winter non-growing season, improved fencing, and associated utilization monitoring will limit grazing effects to the abundance, distribution, and recruitment of riparian plants, herbaceous vegetation, and aquatic habitat (PCE 1) in proposed critical habitat.
- Livestock grazing and the installation of exclosure fencing will not create obstructions to proposed northern Mexican gartersnake critical habitat terrestrial space (PCE 2).
- Improved riparian grazing management by limiting grazing to the non-growing season should improve riparian habitat and stream quality (PCE 3).
- Livestock grazing and fence installation will have discountable effects on the presence and distribution of harmful nonnative aquatic fish, amphibians, or crayfish (PCE 4), because those activities are not capable of introducing or transporting these species or otherwise benefitting them.
- The BLM will continue to work with partners to reduce the presence of nonnative species and improve native prey species when and where possible (PCE 4).

In keeping with our trust responsibilities to American Indian Tribes, by copy of this letter we are notifying potentially affected Tribes of this proposed action and encourage you to invite the Bureau of Indian Affairs to participate in the review of your proposed action. We also encourage you to coordinate the review of this project with the Arizona Game and Fish Department.

Thank you for your continued coordination. No further Section 7 consultation is required for this project at this time. Should project plans change, or if information on the distribution or abundance of listed species or critical habitat becomes available, this determination may need to be reconsidered.

In all future correspondence regarding this project, please refer to consultation number 02EAAZ00-2016-I-0366. Should you require further assistance, or if you have any questions, please contact Nichole Engelmann or Greg Beatty at 602-242-0210.

Sincerely,

Shaula J. Hedwall

Jeffrey A. Humphrey
Field Supervisor

cc (electronic)
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