



# United States Department of the Interior

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In reply refer to:  
AESO/SE  
02EAAZ00-2012-I-0262

October 18, 2012

Mr. Richard Reitz, District Ranger  
Globe Ranger District  
Tonto National Forest  
7680 South Six Shooter Canyon Road  
Globe, Arizona 85501

RE: Capitan, Coolidge-Parker, Ranger Station Grazing Allotments

Dear Mr. Reitz:

Thank you for your October 2, 2012, request for informal consultation with the U.S. Fish and Wildlife Service (FWS) pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). This letter documents our review of the issuance of three 10-year term grazing permits for the Capitan, Coolidge-Parker, and Ranger Station allotments on the Globe Ranger District of the Tonto National Forest. We received your request for consultation and your Biological Assessment (BA) the same day. You concluded that the proposed project "may affect, but is not likely to adversely affect" the endangered Arizona hedgehog cactus (*Echinocereus triglochidiatus* var. *arizonicus*) and the threatened Mexican spotted owl (*Strix occidentalis lucida*) (MSO). We concur with your determinations and provide our rationales below. MSO critical habitat is designated on the Globe Ranger District. However, the three allotments have been excluded from critical habitat because they occur within the Globe-Miami Canyons and/or Pinal Mountain Wildland Urban Interface (WUI) Areas. These are among the 157 WUI areas excluded from designation as critical habitat (69 FR 53182) and therefore, MSO critical habitat is not addressed in this consultation.

## DESCRIPTION OF THE PROPOSED ACTION

A complete description of the proposed action is found in your September 19, 2012, and October 2, 2012 BAs. Additional information about your proposed action was provided from your September 2012 Environmental Assessment, conversations and meetings between our staffs, and conversations with the permittee of the Coolidge-Parker Allotment, who has been granted applicant status for the purpose of this consultation.

The proposed action is adaptive management for on-going livestock grazing for Capitan, Coolidge-Parker, and Ranger Station allotments over a 10-year period. The proposed action also

includes an increase in the number of animal unit months (AUMs) and range improvements for the Coolidge-Parker Allotment. No changes in livestock numbers or improvements are proposed for the Capitan and Ranger Station allotments. Livestock grazing will be year-long in which, pastures will be grazed based on the conditions of the resources. Livestock use in the Mountain pastures will generally be every other year. The timing, intensity, and frequency of grazing would be adjusted periodically to allow for increase in perennial forage plants. If adjustments are needed, they would be implemented through Annual Operating Instructions, which would adjust livestock numbers so that use is consistent with current productivity and sufficient to obtain stated objectives based on monitoring. Total use at end of growing season on herbaceous forage plants (perennial grasses) will be authorized from 30 to 40% on the Capitan and Ranger Station allotments; and from 35 to 45% on the Coolidge-Parker Allotment.

The authorized Animal Unit Months (AUMs) for each allotment is listed below along with the names of the pastures. There are two Mountain Pastures and both contain a MSO Protected Activity Center (PAC). Once the AUMs are reached, livestock will be moved out of a critical area or pasture as described under Adaptive Management and associated monitoring.

- Capitan Allotment – 395 AUMs up to 2830 AUMs for the Maverick, Harvey, Indian Spring, Hog Trough, and City Well pastures.
- Coolidge-Parker Allotment – 415 AUMs up to 1550 AUMs for the Mountain, East Harvey, West Harvey, CCC, Home, 66, Antive, Exchange pastures.
- Ranger Station Allotment – 324 AUMs up to 624 AUM for the Mountain, Northwest, Southeast, Hayes pastures.

### **Proposed Improvements for the Coolidge-Parker Allotment**

#### Mountain Pasture

*Sawmill Tunnel Spring (STS):* Because existing spring-works at STS have limited utility as a livestock water development, they would be replaced with closed spring-works including a nearby wildlife drinker. New spring-works would be resistant to damage by wildlife and people. Water would be gravity-fed to a wildlife friendly water trough near Sixshooter Canyon, then down-slope to a mid-slope water trough location.

*Squaw Spring- Pinal Creek pipeline and water troughs:* Construct a pipeline with up to four livestock water troughs. It would begin at Squaw Springs, extend to the cement storage tank near Upper Pioneer Pass Recreation Area, and then parallel Pinal Creek downstream to the Mountain/West Harvey Pasture boundary fence.

*Bear Paw Spring:* Construct a new water trough and spring works and potentially add a supplemental water supply. Water from Squaw Spring – Pinal Creek Pipeline may be used as an additional water source for Bear Paw Spring.

*Pioneer Pass (Lower Corral) Improvement:* Construct a 100-ft. x 100-ft. livestock corral, and 200 to 250-feet of low-standard access from Forest Road 112 to Lower Corral. Move water trough and storage tank from lower East Mountain Trailhead to the corral. Lower Corral is for temporarily holding livestock for management, which could include transport, medical attention, and other actions.

*Pinal Peak Range Improvement:* Construct a 100 ft. x 100 ft. livestock corral in the borrow pit and clear a twenty-five foot wide livestock trailing lane (lane) between the corral and recreation area/mountain pasture fence (~500 ft.). Within the lane, clear understory vegetation so livestock can be trailed from Pinal Peak Corral into Mountain Pasture. During grazing years, cattle will be trucked to Pinal Peak Corral and turned-out into Coolidge-Parker Mountain Pasture.

*Coolidge-Parker Mountain Pasture Boundary Fence:* Construct a fence between the Mountain Pasture and the CCC, West Harvey, and East Harvey pastures to the north.

#### Antive and West Harvey Pastures

*Watering facility:* Four troughs with above ground pipeline will replace existing stock tanks. Cattle will be managed by turning water off to locations where forage has been utilized.

*Corral:* A small corral of about one-tenth acre will be built on the northern end of Antive Pasture. Purpose of corral is to cull out sick animals when needed for medical attention or branding.

*West Harvey Pasture Pipeline:* Construct an above ground pipeline to be brought from East Harvey windmill to an existing pipeline in West Harvey Pasture. Three drinkers will be installed which will regulate and manage grazing by selecting which drinkers to fill.

The objectives of these range improvements are to provide livestock water, contribute to improving livestock distribution, control livestock movements, and facilitate livestock handling activities.

#### **Additional Range Improvements in the Mountain Pastures (Coolidge-Parker Allotments and Ranger Station)**

*Ridge Pipelines:* Using water from Squaw Spring, Ferndell Spring overflows, or other sources, construct pipelines along major ridgelines and place multi-use water troughs for livestock and wildlife in functional locations along the ridgelines to improve livestock distribution and wildlife habitat quality.

#### **Adaptive Management**

The Globe Ranger District would implement best management grazing practices, watershed practices, and activities associated with adaptive management and monitoring strategies to work to resolve any disparities between current conditions and the geographic area's site-specific desired conditions as derived from the Tonto National Forest Plan.

Adaptive management is defined as a type of natural resource management in which decisions are made as part of an ongoing process. Under the proposed action, the current Tonto National Forest Plan direction would guide management. Livestock grazing, as well as vegetation management practices on the three allotments would be authorized incorporating adaptive management to meet Tonto National Forest Plan goals, objectives, standards, and guidelines. An allotment(s) specific defined starting point management that is believed to be capable of maintaining or moving toward desired resource conditions in a timely manner would be implemented. Monitoring would be employed to evaluate both implementation and effectiveness of management actions. If monitoring indicates that practices are being properly implemented and that resource trends are moving towards meeting desired conditions in a timely manner, management may continue. If monitoring indicates that there is a need to modify management practices, adaptive options (e.g., The Allotment Management Plan will incorporate an adaptive management strategy under which the duration, timing, and frequency of grazing, as well as the number of livestock authorized annually may be continually modified in response to changing resource conditions and achievement of management objectives) would be selected and implemented following design criteria.

In all cases, management would use vegetation management tools that would meet the Tonto National Forest Plan Objectives, Standards and Guidelines, and maintain or move existing resource conditions toward project specific and Geographic Area desired conditions. Any review of monitoring results would consider changed circumstances and site-specific environmental effects of range improvements in the context of the overall project.

### **Management Practices**

Management practices include measures to reduce or avoid resource impacts that are incorporated into the project design.

### **Soil, Water and Vegetation**

- Utilization of key upland herbaceous forage species in key areas will be managed to achieve the goal of 35-45% annual utilization as a pasture average.
- In riparian areas, allowable use for obligate riparian trees species will be limited to < 50% of terminal leaders (top 1/3 of plant) on palatable riparian tree species accessible to livestock (usually < 6 feet tall). Use of deergrass will be limited to < 40% of plant species biomass. Emergent species (rushes, sedges, cat-tails, horse-tails) will be maintained at six to eight inches of stubble height during the grazing period. Utilization will be measured seasonally, when livestock are in the pasture. Livestock will be moved from the critical area or pasture when recommended guidelines are met.
- Management practices will be used to achieve proper distribution or lessen the impact on sensitive areas. Practices include herding, salting and controlling access to waters. Salt will be placed on good feed, one quarter to one half mile from waters and salting locations will be moved annually. Placement of liquid or bulk supplements will require prior approval of the District Ranger.

## Monitoring

Effectiveness monitoring includes measurements to track the condition and trends of upland and riparian vegetation, soil, and watersheds. Effectiveness monitoring would occur at least once over the ten-year term of the grazing authorizations, or more frequently if deemed necessary.

Implementation monitoring would occur yearly and would include such things as inspection reports, forage utilization measurements in key areas, livestock counts and facilities inspections. These data could include browse utilization measurements, perennial grass stubble height measurements, photo points, or height/weight relationships for certain perennial grass species.

Utilization in riparian areas would be monitored on key forage species, which are native perennial grasses that are palatable to livestock. At a minimum monitoring would include use in key areas, but may include monitoring outside of key areas. Over time, changes in resource conditions or management may result in changes in livestock use patterns. As livestock use patterns change, new key areas may be established and existing key areas may be modified or abandoned in cooperation with the permittee.

*Wildlife Monitoring:* Project related MSO monitoring will be conducted according to FWS protocols. Implementation monitoring trips in MSO PACs would occur during the breeding season and be conducted in accordance with your proposed conservation measures described in the October 2, 2012, BA.

*Vegetation Monitoring:* Key area monitoring would follow procedures described in Interagency Technical Reference and Region 3 Rangeland Analysis and Training Guide. Utilization on browse species is limited to 50% of annual growth on terminal leaders. Periodic (approximately 8-10 year intervals) monitoring for vegetation trend will include cover and frequency. If it is concluded through monitoring that pastures have been over utilized or that trend is declining, then adjustments to timing, intensity and frequency of grazing will be made to move toward desired conditions. If necessary, above ground water developments may be moved to achieve management objectives and improved distribution of cattle.

*Riparian Monitoring:* Utilization of critical riparian areas will be measured seasonally while livestock are in pasture. If utilization reaches limits of recommended guidelines, livestock will be moved from critical area or pasture considering time of year and extent of area involved.

Copies of the monitoring data collected from the Mountain pastures will be submitted to our office along with the Annual Operating Instructions and any modifications to the three allotments annually.

## DETERMINATION OF EFFECTS

We concur with your determination that the proposed action “may affect, but is not likely to adversely affect” the Arizona hedgehog cactus and Mexican spotted owl for the following reasons:

### Arizona Hedgehog Cactus

- Other species of *Echinocereus* occur within the allotments and resemble the AHC. AHC is extremely difficult to distinguish from other closely related species and definitive separation

may require chromosome counts. However, any red claret-cup hedgehog varieties found in the allotments have been treated as if they are the variety *arizonicus*.

Within the allotments, AHC are commonly found growing in boulder crevices or rocky habitat that is inaccessible to livestock. A few are found along established trails on flat, level ground where there is some risk of direct effects to plants from livestock. The Globe Ranger District biologist has done extensive fieldwork in these allotments from 1998-2010 and has not observed any AHC trampled. In 2000, Forest Service biologists monitored AHC during the flowering season on generally flat bedrock terrain within AHCs main population. They did not observe trampling where many cattle tracks were interspersed with approximately 100 AHC plants.

Potential effects of grazing on Arizona hedgehog cactus have been assessed on the Devil's Canyon Allotment, where in a plot of over 100 plants accessible to livestock, no trampling was noted (C. Woods, TNF, pers. comm.). In another study, trampling by livestock occurred in less than 0.25 % (1.25 plants) of all plant observations (n=500) (Cedar Creek Associates, Inc. 1994). A trampled plant does not necessarily mean a dead plant, as these cacti will survive some vegetative damage, and continue to grow and reproduce.

As a result of these studies, there is a small possibility of direct damage to plants from livestock trampling. In most instances, however, livestock grazing, livestock concentrations, and/or feeding areas are not anticipated to occur where plants are found. When trampling does occur, which limited studies have shown to be rare, it is not known to what extent trampling would result in actual plant mortality. We believe it is reasonable to anticipate, until studies show otherwise, that the few instances of trampling by livestock would not result in cactus mortality. No herbivory by livestock has been observed on Arizona hedgehog cactus, therefore we anticipate no effects from livestock herbivory.

It is not known how landscape-level use of Arizona hedgehog cactus habitat by livestock may or may not impact the overall distribution, abundance, or establishment of the cactus (M. Falk, USFWS, pers. comm.), as no studies have been initiated to address these questions. Since the majority of known individuals occur in areas that are not accessible to livestock, we anticipate that indirect effects to the overall population and habitat are insignificant.

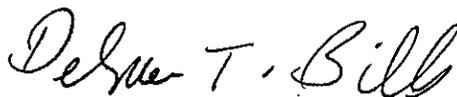
In summary, we do not expect livestock will eat Arizona hedgehog cactus, therefore no effects are anticipated to occur from herbivory. Additionally, we believe the likelihood of injury, due to the rare occurrence of trampling Arizona hedgehog cactus is small, and the indirect effect to plant populations and habitat will be insignificant. Any range improvements within AHC habitat will follow conservation measures described in the October 2, 2012, BA to avoid adverse impacts to the cactus and its habitat. Therefore, the effect of the proposed action is considered insignificant and discountable.

### Mexican Spotted Owl

- Three MSO PACs are within the boundaries of the Coolidge-Parker and Ranger Station allotments. The Ferndell Spring PAC (120201) and the Pioneer Pass PAC (120202) are within the Mountain Pasture on the Coolidge-Parker Allotment; and the Icehouse Canyon PAC (120207) is in the Mountain Pasture on the Ranger Station Allotment. The majority of protected MSO habitat in the Mountain pastures occurs on steep, rocky slopes that are largely inaccessible to livestock and/or has limited forage production or vigor due to high canopy cover that does not promote livestock use of these areas. Most of the livestock grazing in the Mountain pastures will be in the drainages. However, because grazing will generally occur every other year, it is anticipated that this rest will allow the vegetation in riparian areas, headwater drainages, and upland habitats on slopes less than 40% to recover from grazing effects and provide or maintain sufficient cover to MSO prey base. Our analysis is also contingent upon your adaptive management strategy that uses targeted resource monitoring during the life of the propose action to determine if utilization levels have been exceeded or range conditions show a downward trend. If this occurs, it would necessitate the need to move cattle out of the Mountain pastures prior to the end of the season. Therefore, we anticipate that any direct or indirect effects to the owl or its prey base from authorized use levels will be insignificant.
- All construction and reconstruction activities (water developments, pipeline, corrals, etc.) will be completed outside of the MSO breeding season (March 1<sup>st</sup> through August 31<sup>st</sup>). Annual maintenance of range improvements, which are necessary and would occur within occupied MSO habitat, will be minimized by restricting activities to daylight hours, limiting the number of trips into PACs during the breeding season, and keeping noise levels below disturbance thresholds (e.g., noise levels would be less than 65 dBAs to avoid adverse effects to nesting owls). Therefore, though some human disturbance associated with the proposed action will occur during the MSO breeding season, disturbance effects to MSO will be discountable.

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, these determinations may need to be reconsidered. We also encourage you to coordinate the review of this project with the Arizona Game and Fish Department. In all future correspondence on this project, please refer to consultation number 02EAAZ00-2012-I-0262. Should you require further assistance or if you have any questions, please contact Kathy Robertson (x 232) or Debra Bills (x 239).

Sincerely,



*for* Steven L. Spangle  
Field Supervisor

Mr. Richard Reitz, District Ranger

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cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ  
Assistant Field Supervisor, Fish and Wildlife Service, Flagstaff, AZ  
District Biologist, Globe Ranger District, Young, AZ (Attn: Craig Woods)  
DC Cattle Company, LLC, Globe, AZ (Attn: David L. Cook)

W:\Kathy Robertson\Section 7\Capitan, Coolidge Parker, Ranger Station concur.doc:egg