

Decision Notice for the Copper Creek Grazing Authorization Project

U.S. Forest Service
Cave Creek Ranger District
Tonto National Forest
Yavapai County, Arizona

Introduction

The Copper Creek grazing allotment encompasses approximately 35,000 acres in southeast Yavapai County, 50 miles north of Phoenix, Arizona. It is located at the northwest portion of the Cave Creek Ranger District of the Tonto National Forest. Vegetation on the allotment is made up of tobossa grassland, semi desert grassland, and desert scrub in the higher elevations. The Copper Creek allotment consists primarily of five pastures: Bobcat, Brooklyn, Cornstalk, Granite-Mesa Butte, and Perry Mesa.

In the mid-1990s, a Coordinated Resource Management Plan (Coordinated Plan) was proposed that would allow Copper Creek to be grazed in conjunction with Bureau of Land Management's (the Bureau) adjacent Horseshoe Allotment. The goal of the Coordinated Plan was to achieve desired conditions across the two allotments by running one livestock operation with a common herd of cattle.

An environmental assessment was completed in 1997 to evaluate the effects of implementing the Coordinated Plan under the *National Environmental Policy Act* (NEPA)¹. That same year a Decision Notice was signed by both the Forest Service and the Bureau. The resulting Coordinated Plan was signed in spring of 1998, and since then, the Copper Creek and Horseshoe Allotments have been run as a single operation. The Forest Service, the Bureau, and permit holder (permittee) are partners in the implementation of grazing plans on the allotment.

Every year, annual operating instructions are developed for grazing management on the Copper Creek Allotment in coordination with the permittee and the Bureau. These instructions are within the bounds and constraints of the original 1997 decision and are guided by the Coordinated Plan. However, because this decision was to implement the Coordinated Plan, which had specific dates, schedules, and limitations on when certain pastures could be used, the recent instructions are outside of these specific timelines for pastures used. The most recent operating instructions were developed within revised policy² that administratively authorizes additional flexibility in grazing schedules on a trial basis within specific utilization standards that have been adhered to for this allotment. Authorized date and numbers of cows are different than what is authorized by the 1997 decision.

¹ Environmental Assessment #AZ-024-95-60: "Horseshoe/Copper Creek Allotments Coordinated Resources Management Plan".

² Forest Service Handbook 2209.13, Chapter 90.

Additionally, in 2005, the Cave Creek Complex fire (Complex fire) burned 243,800 acres of the Cave Creek Ranger District including most of the Copper Creek Allotment. After the fire, the allotment was put into non-use for resource protection and development while conditions were allowed to improve. Cattle were restocked on Copper Creek in 2012.

Purpose of and Need for Action

The Tonto National Forest Land Management Plan (Forest Plan) identifies the Copper Creek Allotment as suitable for domestic livestock. The purpose of this action is to authorize livestock grazing in a manner consistent with direction to move ecosystems towards their desired conditions. Authorization is needed on this allotment because:

Where consistent with other multiple use goals and objectives, there is Congressional intent to allow grazing on suitable lands (*Multiple Use Sustained Yield Act of 1960, Wilderness Act of 1964, Forest and Rangeland Renewable Resources Planning Act of 1974, Federal Land Policy and Management Act of 1976, National Forest Management Act of 1976*).

This allotment contains lands identified as suitable for domestic livestock grazing in the Tonto National Forest Plan and continued domestic livestock grazing is consistent with the goals, objectives, standards, and guidelines of the Forest Plan (Forest Plan, pages 24, 91 - 118).

It is Forest Service policy to make forage available to qualified livestock operators from lands suitable for grazing consistent with land management plans (Forest Service Manual 2203.1; 36 CFR 222.2 (c)).

It is Forest Service policy to continue contributions to the economic and social well-being of people by providing opportunities for economic diversity and by promoting stability for communities that depend on range resources for their livelihood. (Forest Service Manual 2202.1)

Additionally, there is a need to coordinate management of the Copper Creek Allotment with the adjacent Horseshoe Allotment, under Bureau of Land Management authority, and allow for flexibility in scheduling pasture use and rest periods to meet resource objectives across the two allotments. As part of a collaborative management approach, and consistent with objectives described in the Forest Plan, range and wildlife habitat improvements are also needed to facilitate livestock distribution and provide reliable waters for wildlife in the area.

Decision and Rationale

The Copper Creek Grazing Authorization Project Final Environmental Assessment (Final EA) documents the environmental analysis and conclusions upon which this decision is based. Based upon my review of supporting analysis documentation, I have decided to implement Alternative A, the Proposed Action, as described in Chapter 2 of the Final EA which will authorize livestock grazing on the Copper Creek Allotment in a manner that is consistent with Forest Plan standards, guidelines, and objectives and maintains or improves natural resource conditions. In addition to authorizing livestock grazing, my decision incorporates authorization for range improvements, adaptive management for native fish

introductions, monitoring, and management practices and mitigation measures. Specifically, I have decided to implement the following:

Grazing Authorization

Livestock grazing within the Copper Creek Allotment will be conducted under the following terms:

Permitted Livestock Numbers

Permitted use numbers will vary from 200 to 500 head of livestock which is equal to 2,400 to 6,000 Animal Unit Months (AUMs), year-long and up to 250 yearlings (which is equal to 787.5 AUMs for 250 yearlings for four and a half months) for natural increase (last year's calves) from January 1 to May 15, annually. These stocking numbers are based on the currently permitted stocking rate and the results of monitoring data. Table 1 shows the permitted numbers for Copper Creek.

Table 1: Proposed Stocking Numbers

Class of animal	Current Stocking in AUMs	Begin Date	End Date	Maximum Stocking ³	Maximum Stocking in AUMs
Cow/Calf pairs	284/ 3,408 AUMs	1-Mar	28-Feb	200-500	2,400 to 6,000
Yearlings	N/A	1-Jan	15-May	Up to 250	Up to 787.5

Grazing System

Livestock will be grazed using a flexible livestock rotational system with a selective rest-rotation strategy. A selective rest-rotation strategy is comprised of two components. The selective component uses current climatic and on the ground monitoring data along with utilization triggers to prompt livestock rotations. The rest component is a period of no grazing, or deferment, within a pasture to allow for the physiological needs of plant recovery and reproduction after grazing has occurred within that pasture.

Annual authorized livestock numbers are the number of cattle that are determined can be appropriately grazed in a given year based on precipitation, pasture rotation, forage production and other resource concerns. This number can be adjusted from initial stocking levels on a yearly basis but will not exceed the permitted number of livestock. A stock and monitor approach, consistent with regional Forest Service direction Region 3 Supplement to FSH 2209.13 chapter 90, will be used to establish grazing capacity over the long term (five to ten years). Actual permitted levels of grazing will be determined annually by the Cave Creek District Ranger with the permittee based on the results of monitoring and successful implementation of management practices. Additionally, annual authorized use will vary based on current range conditions, including forage availability, water availability, current growing conditions, and resource monitoring. Scheduling of pasture use will vary from year to year as detailed in Copper Creek Annual Operating Instructions (AOI). Pasture rotation schedules provide the basis for scheduled use, rest, and recovery periods after scheduled grazing to maintain or improve range and watershed conditions. The length of the grazing period within each pasture will also be considered and managed for the desired

³ This is the upper limit of cow/calf pairs.

grazing intensity and utilization guidelines. Range readiness of pastures may be checked along with rest and recovery of key species to ensure proper rest and recovery of those plant species has occurred. If, due to circumstances such as drought, fire, exceedance by wildlife use, or other reason, plants have not recovered sufficiently to meet their key physiological requirements, grazing could be delayed or pushed off until sufficient plant recovery has occurred.

Grazing intensity will be measured using forage utilization. Forage utilization will be managed at a level corresponding to light to conservative grazing intensity in order to provide for grazed plant recovery, increases in herbage production, and retention of herbaceous litter to protect soils. Conservative use equates to 30 to 40 percent on herbaceous species and up to 50 percent use on browse. Consistent patterns of utilization in excess of 40 percent on key species in key areas will be used as a basis to modify management practices or take administrative actions necessary to reduce utilization in subsequent grazing seasons. Allowable use for riparian and upland vegetation is summarized in Table 2.

Table 2: Upland and Riparian Utilization Guidelines

Vegetation	Use Threshold
Upland Herbaceous Use	30-40% of current year's growth
Upland Browse Species	50% of current year's growth
Riparian Herbaceous Use	Limited to 40% utilization of plant species biomass of deer grass and maintain 6-8 inches of stubble height for emergent species such as rushes, sedges, cattails, and horsetails; measured during the grazing season.
Riparian Woody Species	Limited to 50% of leaders browsed on upper 1/3 of plants up to 6 feet tall

The goal is to achieve conservative use in the uplands over successive years. This strategy recognizes the importance of the AOI in allowing for modification of management. These actions include, but are not limited to; adjustments of timing, intensity, frequency, and duration of grazing to reach resource objectives (Forest Service Handbook 2209.13 - Chapter 90)⁴.

When pasture rotation schedules are determined for the upcoming grazing year, the grazing permit holder (permittee) will be required to follow the prescribed pasture rotation or develop alternative plans with the Forest Service if resource or livestock management concerns arise. Concurrent with this project, the Bureau of Land Management is also evaluating the reauthorization of livestock grazing on the adjacent Horseshoe Allotment. If grazing is authorized on both allotments, pasture use could be scheduled to rotate livestock among the pastures on both the Horseshoe and Copper Creek Allotments. This strategy will maximize management flexibility to respond to resource conditions. In this case, the Cave Creek District Ranger, the Bureau Monument Manager, and the permittee would collaborate to schedule pasture use across both allotments. If livestock grazing is not authorized on the Bureau's Horseshoe Allotment, the Copper Creek Allotment will still be grazed according to a yearlong select-rest rotation grazing strategy

⁴ For more information on how this strategy will be monitored, see the Monitoring section of this alternative.

that allows for periodic rest of individual pastures. Grazing utilization standards will be maintained as described above and livestock numbers would be maintained at the authorized levels using the stock and monitor approach as previously described.

Management systems will be designed to incorporate at least one growing season of rest or deferment in order to provide grazed plant recovery. Timing of pasture moves will be determined by forage utilization monitoring and resource management objectives specified in the Copper Creek AOI with the following design criteria.

Actual rotation of cattle will be determined annually through the Copper Creek AOI. Modifications to these documents may be implemented at any time throughout the grazing season in response to unforeseen environmental or management concerns. Such changes may be in response to resource conditions including but not limited to: water availability, forage conditions, drought, fire, and management objectives. This includes using monitoring results to continually modify management in order to achieve desired conditions. This will provide the flexibility to adapt management to current conditions. Such changes may include annual administrative decisions to adjust the number of livestock, dates for grazing (season of use), class of animal, or pasture rotation. These changes will not exceed the limits for timing, intensity, duration, and frequency as defined in the grazing permit.

The Forest Plan (p. 24) identifies the goal of the range program to incorporate the social and economic needs of permittees into the process of balancing permitted grazing use with capacity. Adjustments of livestock numbers must recognize the economic viability of each ranching operation and the time frame for adjustments in livestock numbers for proper management depends considerably on the permittees willingness to implement proper management systems and level of funding for both operation and maintenance of range improvements. The criteria or steps used to implement proper range management include:

1. Through range analysis and production and utilization surveys and/or agreement on a proper level of permitted use with permittees, provide a balance of permitted use with forage capacity.
2. Cooperatively with the permittee, develop an allotment management plan that establishes allotment goals and objectives and provides for grazing systems and management practices that will provide an improving trend in range conditions.
3. Identify the structural and non-structural improvements needed to facilitate implementation of grazing systems and management practices in the allotment management plan.
4. Develop an annual action plan and schedule for improvements, through program planning budgeting system.
5. Monitor allotment management plans to determine if management objectives are being met.

Management Tools

As described in the Public Involvement section of Chapter 1 of the Final EA, the Forest Service, Bureau of Land Management, Arizona Game and Fish Department, Natural Resource Conservation Service and the grazing permittee for the allotment, along with a diverse stakeholder group, have begun drafting a revised Coordinated Resource Management Plan (revised coordinated plan) for the Copper Creek Allotment. The revised coordinated plan would be used in place of a traditional allotment management

plan to implement the authorization, mitigation measures, monitoring and adaptive management strategies and objectives described in this decision. Management actions in the revised coordinated plan will be limited to those that fall within the scope of this decision and those currently authorized by existing law, regulation, and policy. The intent of the revised coordinated plan will be to provide a coordinated grazing management strategy across the two allotments (Copper Creek and Horseshoe Allotments) while moving natural resources on the Copper Creek Allotment toward the desired conditions.

If monitoring indicates that desired resource conditions outlined in chapter I of the Final EA are not being achieved in the desired time frame or areas for this allotment, management will be modified to more closely achieve those desired conditions. Such changes may include annual administrative actions to adjust the specific number of livestock and/or animal unit months, specific dates for grazing, class of animal, or pasture rotations. These changes will not exceed limits for timing, intensity, duration, and frequency, as described in this decision.

Necessary changes will be implemented through the AOI, which will adjust use to be consistent with current productivity and resource conditions. The AOI will also include mitigation measures and Best Management Practices to avoid or minimize effects to wildlife, soil, and water quality. Modifications to the AOI may be implemented at any time throughout the grazing season in response to unforeseen environmental concerns such as drought, fire, flood, etc., or management and livestock operation concerns.

The following is a list of when administrative actions will be necessary in the management of this allotment:

- Monitoring shows management objectives have not been achieved or that trend toward achieving desired conditions is not improving or improving at an adequate rate.
- Annual indicators of grazing use or grazing guidelines are not met.
- Climatic events, fire, flood, or uses and activities detrimentally impact resource conditions and a modification of grazing use is needed to provide for recovery of the site.

There are several types of administrative actions that could take place within the allotment. These actions will comply with the Forest Plan and mitigations detailed later in this section. The following list includes some of these actions:

- Extending or shortening time in a pasture based on utilization levels in uplands and riparian areas;
- Assessing the readiness of a pasture and changing its position in the rotation for the season;
- Time or season of pasture use;
- Resting a pasture for one or more growing seasons;
- High intensity, short duration grazing⁵;
- In the event of extended drought, severe fire, or depleted rangelands, complete removal of livestock until rangelands have recovered;

⁵ This tool is not meant to be used as an allotment wide grazing system but rather will be looked at to achieve specific resource goals such as reducing noxious weeds in combination with an integrated weed management plan. Archeological surveys would need to be conducted in any area this tool is planned to be used.

- Decrease or increase herd size within the limits of the permitted numbers;
- Temporarily closing off water in a portion of a pasture to manipulate grazing pressure and intensity of use;
- Use of salt and mineral blocks to aid in distribution, especially away from critical areas such as riparian areas;
- Excluding livestock from specific areas temporarily or permanently for other resource objectives;
- Changing or limiting season of use to minimize impacts to riparian vegetation and water quality.

If monitoring indicates desired conditions are not being met, the District rangeland management specialist, in consultation with the permittee and resource specialists, as appropriate, will:

- Evaluate the potential cause for not meeting desired condition or indicator such as utilization;
- Evaluate the need to implement alternative strategies;
- Generate documentation necessary in the AOI and/or permit and allotment files for the action to be implemented; and
- As necessary, conduct additional site specific surveying, such as for cultural resources.

Range Improvements

Existing structural range improvements are critical to the management of livestock on the National Forest. These range improvements allow for management of grazing in conjunction with multiple use objectives by providing control of livestock movements across the allotment. This is done through the construction of barbwire fences, access to water sources and use of handling facilities for the inspection and transportation of livestock. As cattle are fenced into specific areas called pastures and then rotated through these areas, the majority of the allotment at any given time is rested from livestock grazing, thereby providing for plant recovery and reproduction. Additionally, springs have been developed to provide water for livestock away from critical riparian areas and to more evenly distribute the grazing pressure from livestock across any given pasture. Livestock can also be excluded from locations where they tend to concentrate or areas that are deemed not suitable for livestock use.

All of the structural range improvements currently located on the allotment will continue to be maintained. Areas where livestock are already excluded will continue to be excluded from livestock such as the Bishop Creek enclosure area. These areas will remain excluded from livestock grazing unless further analysis determines that there is no longer a sufficient reason to do so. The road through the Bishop Creek enclosure may be used to drive cattle when moving between the Cornstalk pasture to or from the Bobcat pasture. Cattle will be driven along Forest Service Road 677 and not be left to graze in the enclosure. The herd will be moved across the Bishop Creek Enclosure within one day; however if the whole herd cannot be gathered in one large group to be driven across through this area, then the herd will be driven in smaller groups, each of which would occur within one separate day's time not to exceed a total of five days.

To improve management of livestock on the allotment, adding fencing, constructing livestock handling facilities, protecting springs, and developing additional watering sources are authorized to facilitate better livestock distribution, reduce undesirable effects to riparian vegetation and wildlife habitat, or otherwise improve the rangeland resource.

Authorized Range Improvements

The following structural range improvements (Table 3 and Table 4) are planned to be completed in the next two years. It is not necessary for the improvements to be completed in a specific order. As these new structures are expected to be implemented during the first two years of this project, each area has been surveyed for heritage resources prior to this decision to reauthorize grazing on the allotment.

Implementation of the proposed range improvement infrastructure will be based on available funding and management objectives and include Range Betterment funds, permittee contributions and potential grant opportunities.

Table 3: Authorized Fencing Projects on the Copper Creek Allotment

Improvement ID	Pasture	Legal Location	Description
FN1	Brooklyn	T9.5NR3E Sec.36	Installation of barbwire fence at south end of FR 14 to protect heritage resource from unauthorized vehicular traffic. This fence will be constructed with a pedestrian walk-through for ease of access to monitor the site. Heritage surveys conducted in 2017 revealed a better configuration for this fence to better protect the adjacent heritage resources. The fence configuration will be implemented according to these recommendations.
FN2	Granite Mesa	T10NR4E Sec. 26	Develop an approximate 75 foot by 125 foot fenced cattle holding area. This will allow the permittee gather and hold cattle which will improve livestock management. This fence is proposed to be installed within the first two years following this decision ⁶ .

Table 4: Authorized Water Developments on the Copper Creek Allotment

Improvement ID	Pasture	Legal	Description ⁷
WD1	Granite Mesa	T10NR4E Sect. 26,27,34	Addition of a pipeline, water storage and drinker. This will increase water availability in the uplands and better distribute cattle.
WD2	Perry Mesa	T9.5NR4E Sec.19	Development of a new well and addition of water storage tank. This will increase water availability in the uplands and better distribute cattle.
WD3	Perry Mesa	T9.5NR3E Sec.36, 35	Addition of livestock drinker, pipeline, and water storage on west end near Forest boundary. This will increase water availability in the uplands and better distribute cattle.

⁶ In compliance with the Programmatic Agreement, cultural clearances were obtained for all range improvements which are anticipated to be implemented within the first two years of this decision. See the Heritage section of the Final EA for more information.

⁷ All water developments are anticipated to be installed within the first two years of this decision. Therefore cultural clearances have been obtained in compliance with the Programmatic Agreement. See the Heritage section of the Final EA for more information.

Improvement ID	Pasture	Legal	Description⁷
WD4	Perry Mesa	T9.5NR3E Sec.25, 26 and T9.5N, R4E, Sec 19	Installation of a pipeline from the previous proposed well to a new drinker. This will increase water availability in the uplands and better distribute cattle.
WD5	Perry Mesa	T9NR3E Sec.16,21	Addition of a drinker and pipeline from the existing Point Extreme well. This will increase water availability in the uplands and better distribute cattle.
WD6	Perry Mesa	T9.5NR3E Sec.25	Addition of a drinker near the South Campbell stock tank. This will increase water availability in the uplands and better distribute cattle.
WD7	Brooklyn	T9.5NR3E Sec. 31	Addition of a drinker and water pipeline from an existing well. This will increase water availability in the uplands and better distribute cattle.
WD8	Brooklyn	T9.5NR3E Sec.20,19 T10NR4E Sec. 31	Addition of a drinker from the Cornstalk solar well. This will increase water availability in the uplands and better distribute cattle.
WD9	Granite Mesa	T10NR4E Sec. 33,34	Addition of a water line from Copper Spring to a new drinker and water storage. Development new well, drinker, and storage at north end of sec. 33. This will increase water availability in the uplands and better distribute cattle.
WD10	Granite Mesa	T10NR4E Sec.14	Addition of water pipeline from Rugged Windmill drinker and existing storage. This will increase water availability in the uplands and better distribute cattle.
WD11	Bobcat	T10NR4E Sect. 9, 10	Addition of a drinker and pipeline from Old mine Windmill. This will increase water availability in the uplands and better distribute cattle.
WD12	Brooklyn	T9.5NR3E Sec.28,33	Addition of a water line from Rosalie Spring to a new drinker and water storage. This will increase water availability in the uplands and better distribute cattle.
WD13	Bobcat	T10NR4E Sec. 4,5	Development of a new well, drinker, and storage. This will increase water availability in the uplands and better distribute cattle.

In addition to the structural range improvements listed above, additional structural range improvements may be constructed on the Copper Creek Allotment. The effects of adding any additional infrastructure such as fencing or waters to achieve resource objectives in the future are discussed in the Final EA. All improvements will require heritage clearances prior to implementation. Additionally, a permit modification must be in place and signed prior to any work beginning. All structural range improvements will be constructed in accordance with Forest Service Structural Range Improvement Handbook (Forest Service Handbook 2209.22 R3). All improvements will be built within the sideboards detailed in the management practices and mitigation section of this decision. Additional guidance for structural range improvements include the following:

- Motor vehicle and or ATV/UTV access to improvement sites will be on existing roads. If road improvement is needed to access sites, prior approval by the District Office is required (See Travel Management Section).
- Disturbance to obligate riparian vegetation will be minimized, including but not limited to willows, cottonwoods, and sycamores.
- Spring developments will not dewater the spring and must maintain a residual flow for riparian obligate and wildlife species.
- Troughs: an overflow pipe, automatic shut-off valve, and approved wildlife entry/escape ramp will be installed. Troughs will be placed on rocks or concrete to prevent mud holes or sinkholes. Troughs will be painted a color which best blends with surrounding landscapes if using galvanized steel or other reflective surfaces.
- Water will be transported outside of riparian areas.
- Storage tanks will be painted a color which best blends with surrounding landscapes. Open top storage tanks will have approved wildlife escape ramps.
- Pipelines will be buried when crossing roadways and will not go through campgrounds.
- Fences will be comprised of four strands, with a smooth bottom wire at 18 inches off the ground and a maximum top wire height of 42 inches. If live trees are used as posts, trees must be protected from direct contact with the wire to prevent girdling.
- Wells: if using liquid or air drilling mediums, all drilled solids and fluids must be water-misted at exhaust point to reduce air particulates before being moved off-forest. If wells are re-drilled, registration of water rights will be made through Arizona Department of Water Resources in favor of USA-USDA-Forest Service-Tonto National Forest.
- All spring source facilities will be adequately protected or fenced and fences maintained to prevent livestock from getting into the source box. Once fenced, water will be piped to a trough located outside the enclosure to provide livestock water.
- Head box lids or covers shall be in place to prevent dirt, rodents, or other refuse from getting into the head box and prevent wildlife entrapment.

Maintenance of Existing Improvements

All structural range improvements will be maintained to Forest Service Standards as outlined in FSH 2209.22(R3). Any maintenance or reconstruction of improvements should be confined within original site disturbance and construction. Poles, posts, and trough framing materials used in the construction of the water development would be maintained, repaired, or replaced as needed. Open pipe posts would be capped to prevent wildlife entrapment. In addition the following guidance will be followed when maintaining structural range improvements:

Trough, Water System, and Stock Pond Standards

- New spring developments will be constructed with the spring box designed so that residual flow is left at the spring head to prevent dewatering.
- All outlet pipes and valves from head boxes will be functioning and any leaking should be kept to a very minimum.
- All above ground pipeline support structures will be maintained to keep the pipes at gradient and prevent sagging.
- Pipeline leaks will be repaired or the damaged section will be replaced with materials similar to the original construction materials.

- Pipelines with air and drain valves will be covered with a screen to prevent rodents and dirt from entering the pipe. Screens will be replaced as needed.
- Pipelines with valve covers boxes will be kept covered and repaired when needed.
- Pipelines will use existing pipeline routes for replacement of existing lines whenever possible. Placement of above or below ground lines will be determined on a site-specific basis.
- Water troughs will be kept at heights that make them useable to livestock. Troughs which become elevated from trampling livestock will be periodically backfilled to maintain a useable height.
- Troughs which become uneven due to settling will be reset and leveled.
- Troughs, storage tanks, and pipelines will be drained and cleaned periodically to prevent moss and debris buildup and damage from freezing.
- Stock water ponds will be kept clear of debris, dead animals, etc. Spillways will be cleaned and maintained to prevent washing out or becoming plugged. Rodent damage and damaging vegetation on dams will be reported to the administrative agency.
- Stock water development components (e.g., rusted out troughs, broken sections of pipe, etc.) replaced during maintenance or reconstruction will be removed and properly disposed of.
- Bottoms of troughs will be kept clear of the ground with at least 2 inches to 4 inches of clearance under the bottom of the trough to prevent rusting or decomposition.
- Water will not be allowed to overflow the sides of the troughs. Overflow pipes must be kept clear. Overflow water will be piped away from troughs at least 50 feet. The end of the overflow pipe must be protected from trampling by livestock. Water from overflow pipe must be directed away from the trough area and returned to its source.
- Inlet and outlet pipe shall be protected by anchoring to the trough with a single post next to the vertical pipe and a brace or pole supporting the horizontal pipe. Inlet and outlet pipeline will be buried as much as possible for their protection.
- All troughs will be equipped with a wildlife escape ramp from which birds and rodents can escape or drink from the trough.

Fence and Corral Standards

- Broken or rotten posts, broken braces and missing staples will be replaced where and when needed to maintain the fence.
- Wires will be re-stretched where needed.
- Broken or missing stays will be replaced where needed.
- The top wire on all range fences should be kept under 42 inches in height.
- Staples will not be driven so deep into the post that they scar or create a weak spot in the wire.
- Open pipe posts will be capped to prevent wildlife entrapment.
- All gates will be closed before livestock enter the grazing units and opened and tied back after livestock leave the allotment.
- Wire gate tension will be sufficient to prevent the gate from sagging and still be easily opened and closed. Gate loops will be made from smooth wire, not barbed wire.
- Trees which fall on fences will be cut and removed when and where needed; wire, if broken, will be spliced and re-stretched; poles if broken will be replaced.
- Broken or rotten sections of log or pole fences and corrals will be replaced as needed.
- Corrals will be kept clean of litter, in good repair, and in useable condition.
- Metal components of range fences and corrals (e.g., wire, stays, t-posts, gates, etc.) replaced during maintenance or reconstruction will be removed from the Forest and properly disposed of.

- All broken fence wire will be spliced and repaired in such a manner that tension on a wire can be maintained. Wire splices will be made with 12 gauge size tie wire or type of wire used in initial construction.

Adaptive Management: Native Fish Introductions

Forest Plan standards and guidelines and the Forest Service Manual direct the Tonto National Forest to work with other federal, state, and local agencies to manage for the persistence of native fish and wildlife species habitat on the Forest (Forest Service 1985). National Forest System directives also include managing lands and resources for the benefit of both Forest Service sensitive and federally protected fish and wildlife populations and their habitats (listed, candidate, and critical habitat under the *Endangered Species Act*), establishing objectives for habitat management that provides for recovery of these populations, and placing top priority on conservation and recovery of these species (Forest Service 2005).

The Tonto National Forest currently works cooperatively with the Arizona Game and Fish Department (Department) and the U.S. Fish and Wildlife Service to complete recovery actions for federally protected species and their habitats located on forest lands (see Forest Service 2010). Recovery projects for native and protected species are conducted as a partnership between the federal government and the Department through the Arizona Native Fish Coordination Team. Currently, this coordination team is actively seeking out streams and watered areas to introduce or reintroduce native fish populations to habitable areas on the Forest, potentially including areas within active grazing allotments. Suitable fish introduction areas have not been identified on the Copper Creek Allotment due to habitat loss and degradation from fires. However, there are streams within the Allotment that may become suitable habitat in the future depending on how resource conditions are influenced by weather and climate. Each situation will be evaluated under the federal-state partnership and the forest will work to take all reasonable and prudent measures to protect listed species habitats for recovery.

Adaptive management is a concept for dealing with uncertainty in environmental management and is used where the Forest Service is uncertain of any outcome but fairly certain of the direction they would pursue if a change were necessary (36 CFR 220.7(b)). If the Native Fish Coordination Team were to identify suitable habitat for native fish introduction within the Copper Creek Allotment, grazing management will adapt in the following ways:

- If the identified habitat occurs in an area already excluded from grazing, either by existing infrastructure or by natural barriers, then no change in management will be necessary.
- If the identified habitat occurs in an area which is accessible to livestock, and livestock use is anticipated to affect the introduced species, then certain management actions, such as those listed in the Management Practices section of this decision, will be taken to reduce or eliminate those effects. In areas where livestock use is minimal, this may be accomplished by herding or salting to further discourage cattle's use of the reintroduction area.
- If herding, salting, or other management practices are not effective to mitigate the effects on the introduced fish, or if introductions occur in areas more heavily used by livestock, fencing will be constructed to exclude livestock from the reintroduction area. In this case, a water source outside of the excluded area will be provided for livestock. Cultural clearances would be completed before ground disturbing fencing is constructed.

Monitoring

The objective of monitoring is to determine if management is being properly implemented and if the actions are effective at achieving or moving toward desired conditions.

Effectiveness Monitoring

Effectiveness monitoring includes measurements to track long-term condition and trend of upland and riparian vegetation, soil, and watersheds. Examples of effectiveness monitoring indicators include, but are not limited to pace transects, pace quadrat frequency, dry weight rank, ground cover, Parker 3-step, repeat photography, and Common Non-forested Vegetation Sampling Procedures which measures; frequency, fetch, dry-weight rank, production, and utilization. Monitoring will occur at established permanent monitoring points. Both qualitative and quantitative monitoring methods would be used in accordance with the Interagency Technical References (1996, revised 1999), Region 3 Rangeland Analysis and Management Training Guide (Forest Service, 1997), and the Region 3 Allotment Analysis Guide. These data are interpreted to determine if management is achieving desired resource conditions, if changes in resource condition are related to management, and to determine if modifications in management are necessary. Effectiveness monitoring will occur at least once over the ten-year term of the grazing authorization or more frequently, if deemed necessary.

Implementation Monitoring

Implementation monitoring will occur yearly and will include such things as inspection reports, forage utilization measurements in key areas, livestock counts, and facilities inspections. Utilization measurements are made following procedures found in the Interagency Technical Reference (1996, revised 1999), or the most current acceptable method, and with consideration of the Principles of Obtaining and Interpreting Utilization Data on Southwest Rangelands. The purpose of implementation monitoring is to determine if grazing meets conservative use guidelines in upland and riparian areas.

Utilization will be monitored on key forage species, which are native perennial grasses or browse species that are palatable to livestock. At a minimum, monitoring will include use in key areas, but may include monitoring outside of key areas. The Cave Creek Ranger District range personnel, permittee, and cooperators will be responsible for monitoring livestock grazing utilization. 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 and cooperators.

Information will be collected through routine pasture inspections and end of season utilization monitoring. Specific schedules for monitoring will be flexible from year to year based upon resource needs, which could change with climatic variations and management changes. Monitoring for plant cover, vigor, recruitment, and diversity, using techniques described in aforementioned publications, will ensure that wildlife needs and riparian and watershed conditions were moving toward desired conditions.

Monitoring methods could include, but are not limited to, utilization and stubble height monitoring, annual riparian monitoring, and photo point protocols. Data will be used, along with supporting

information to determine when livestock must be moved from one pasture to another and to make any necessary adjustments to livestock numbers and/or season of use (determined in AOI).

Key areas are described in “sampling vegetation attributes” (1996) as indicator areas that are able to reflect what is happening on a larger area as a result of on-the-ground management actions. A key area should be an area representative of the range as a whole, an area where livestock use occurs, located within a single ecological site and plant community, and be a minimum of 100 yards from fence lines, enclosures, roads, and trails. Key areas may be identified in the allotment management plan.

While monitoring techniques as described above will be conducted in key areas, these will not be the sole locations for gathering information from the grazing allotment to make decisions about the timing, intensity, duration, or frequency of livestock grazing in a given grazing season. The overall condition of the allotment, and such things as distribution patterns or rangeland improvement conditions could be assessed at any given time to help make those decisions.

Riparian Utilization Monitoring

Riparian components in key reaches will be monitored using riparian utilization measurements (implementation monitoring) following methods in *Sampling Vegetation Attributes and Utilization Studies and Residual Measurements* (1996, revised 1999) or the most current acceptable method.

In order to achieve Forest Plan Standards and Guidelines the following use guidelines for riparian components are as follows:

- Obligate riparian tree species – limit use to less than 50 percent of terminal leaders (top one third of plant) on palatable riparian tree species accessible to livestock (usually less than 6 feet tall);
- Deergrass – limit use to less than 40 percent of plant species biomass; and
- Emergent species (rushes, sedges, cattails, and horsetails) – maintain six to eight inches of stubble height during the grazing period.

The Forest Plan limits use to 20 percent of tree and shrub annual production *by volume*. The percent of leaders browsed was chosen as a surrogate guideline in place of percent volume because volume is an extremely difficult parameter to assess on an annual basis. The method employed for determining the percent of leaders browsed is an expedient and repeatable sampling technique. Mathematical relationships between the number of twigs browsed and percent of current annual growth removed have been established in previous studies (Stickney 1966).

Utilization limits for herbaceous riparian vegetation are intended to do two things: 1) protect plant vigor and 2) provide physical protection of streambanks or the sediment on the greenline that could develop into a bank feature. Deergrass was selected as the key species to monitor because it is the most common obligate, riparian, native, perennial grass on the Tonto National Forest. Additionally, deergrass exhibits a number of traits that make it an ideal stream-stabilizing plant. The above ground attributes of deergrass aid in preventing soil loss through decreasing flow velocity, they also trap sediment which aids in the rebuilding of stream banks. Furthermore, deergrass is a bunchgrass with an extensive root system which acts to stabilize streambanks (Cornwall 1998; Clary and Kruse 2003).

Monitoring short-term indicators, such as stubble height and woody utilization, during the grazing season, can help determine if grazing use criteria is moving riparian conditions toward management objectives over time (Burton *et al.* 2011). The document, *Principles of Obtaining and Interpreting Utilization Data on Southwest Rangelands* (Smith *et al.* 2005), will provide guidance for utilization data collection and interpretation.

If utilization reaches limits of recommended allowable use, livestock will be moved from the critical area or pasture considering time of year and extent of area involved. Actual use records in combination with utilization measurements will inform if it may become necessary to minimize or remove access to riparian habitat, if grazing pressure becomes a limiting factor in the use of pastures

Heritage Resource Monitoring

In accordance with Appendix H, the *Standard Consultation Protocol for Rangeland Management* (the Protocol) of the *First Amended Programmatic Agreement Regarding Historic Property Protection and Responsibilities* (Programmatic Agreement) between the USDA Forest Service Region 3, the State Historic Preservation Officers (SHPO) of Arizona, New Mexico, Texas, and Oklahoma, and the Advisory Council on Historic Preservation, signed December 24, 2003, monitoring will be conducted as part of the day-to-day activities of the professional cultural resource specialists and certified para-archaeologists working in the area. Grazing allotments cover most of any given forest, and when archaeologists are in the field conducting surveys, they are most likely surveying within a grazing allotment. The archaeologists will use these opportunities to observe and report on grazing activities, the effectiveness of the grazing strategy, and potential impacts to heritage resources. Any incidents of damage to historic properties from grazing will be reported, and the archaeologists will draw upon the protection measures outlined in the Protocol to ensure that the effects are avoided or minimized.

Noxious Weed Monitoring

Noxious weeds located in these allotments will be treated as necessary. The permittee and Forest Service will coordinate weed inventory and treatment. Noxious weed monitoring will be carried out at the same time allotment inspections are conducted. As noxious weed populations are found, they are mapped, monitored, and treated. Treatment of invasive species will be carried out in accordance with practices established in Tonto's Environmental Assessment of Integrated Treatment of Noxious or Invasive Weeds as detailed in the decision notice and finding of no significant impact, pages three and four (Forest Service 2012).

Management Practices and Mitigation Measures

Range

Livestock management practices such as herding and salting are critical to achieve proper livestock distribution within each unit/pasture. The Forest will work with the permittee and other specialists to implement strategies in order to achieve proper distribution, protection, and management of cattle on the allotment. Tonto National Forest Grazing Practices are as follows:

- Forest Plan Standards and Guidelines applicable to livestock grazing will be followed (Forest Plan, p. 24).
- Salt and/or supplements will be placed where forage is abundant and current grazing use levels are low. Salt and/or supplements will not be placed any closer than one quarter mile from available water, recreation sites, or designated trails except where prior written approval had been obtained from the District Ranger.
- No salting will occur within or adjacent to identified heritage sites. Salt will be removed from pastures when cattle have left an area, and not placed within a pasture until the cattle arrive. Additionally, salt will not be placed in the same location(s) each year.
- Troughs will be left full of water and operational year round for wildlife accessibility, unless in limited circumstances where extreme freezing conditions may damage facilities.
- When entering the next scheduled pasture, all livestock will be removed from the previous pasture within two weeks (dependent on terrain).
- Permittee will ensure that enough time is allowed to remove livestock to meet the pasture move date(s) and avoid unauthorized and excess use.
- Permittee will ensure all infrastructures are in functioning condition prior to entering the next scheduled pasture.

Travel Management

Tonto National Forest is still in the process of evaluating its Travel Management Plan, which would implement the Travel Management Rule. The Travel Management Rule is aimed at reducing non-essential roads for watershed and resource protection and requires forests to designate a system of roads and trails for motorized vehicle use on the forest. Once the final decision for the Tonto National Forest Travel Management Plan is signed, a Motor Vehicle Use Map will be released, depicting the designated road and trail system. At that point, motorized cross-country travel will not be permitted on the forest. In general, the permittee will be required to follow Travel Management policies and limit the use of motorized vehicles to those roads and trails designated on the Motor Vehicle Use Map.

According to the final Travel Management Rule, motor vehicle use exempted from designation includes "Motor vehicle use that is specifically authorized under a written authorization issued under Federal law or regulations" (36 CFR 261.13(H)). Grazing permits fall under this exemption.

The following on-going activities requiring motor vehicle use off of designated routes will be authorized by the grazing permit to conduct livestock grazing activities on National Forest System lands within the Tonto National Forest:

- Off-road vehicle use by pickup, trailer, ATV, UTV, or motorcycle needed to transport materials or machinery to maintain or inspect structural range improvements (fences, corrals, cattle guards, pipelines, water delivery systems, troughs, earthen tanks) assigned in Part 3 of the grazing permit as the permit holder's responsibility for maintenance will be authorized. Existing routes or the shortest, most direct route to the improvement must be used and route construction (i.e. blading a path) will not be allowed without additional authorization.
- Using an off-road vehicle to place supplements in strategic locations for livestock management purposes may be authorized by the District Ranger in the Annual Operating Instructions when requested.

Off-road vehicle use to gather or move livestock will not be authorized. Cross-country motorized travel will not be allowed when conditions are such that cross-country travel would cause unacceptable natural and/or heritage resource damage. Off-road use of heavy equipment (i.e. backhoe, dozer, loader, etc.) may be authorized by a separate permit modification for range improvement development, as needed. Cross-country travel to construct new structural or non-structural range improvements and other off-road travel by the permit holder is analyzed in the Final EA.

No additional Section 106 cultural compliance is required for specific limited-use authorizations already covered by separate decisions under the *National Environmental Policy Act* per The Region 3 Region-wide Travel Management protocol with the Arizona State Historic Preservation Officer. Motor vehicle use in designated wilderness areas would continue to be managed consistent with the provisions of the *Wilderness Act [Section 4(d)(4)(2)]* that provides for limited exceptions for grazing livestock as further defined in the Congressional Guidelines (FSM 2323.22).

Wildlife

Since site specific information regarding precise location and timing of all range improvements are not available at this time, the Forest Service will implement the following actions to protect listed species:

- For improvements proposed in the Perry Mesa pasture, Sonoran desert tortoise habitat, if present, will be avoided to minimize overlap with livestock concentration areas.
- All water developments will include wildlife access and escape ramps. When possible, waters will be kept available to wildlife year round.
- All fencing will be built to Forest Service standards to provide for wildlife passage through the fence. At a minimum, this will be a four-strand fence with smooth bottom wire 18 inches off the ground and a total height of 42 inches or less.

Riparian

The following are riparian mitigation measures:

- All existing developed and new developed springs will be fenced to exclude livestock access. A trough(s) will be located outside of the enclosure to provide water for wildlife and livestock.
- Construction of developed spring enclosures will be required to have an archeological clearance prior to any construction and will be phased in over time.
- Livestock will not be trailed through riparian areas.
- Salt and/or mineral supplements will be placed at least a quarter mile from riparian areas.
- New spring developments will be constructed with the spring box designed so that residual flow is left at spring head to prevent dewatering.
- New troughs will be placed in the uplands, at least 400 feet away from riparian areas.

Heritage

Mitigation of impacts to heritage resources is best accomplished by avoidance of these properties during placement and construction of all range improvements. It can also be achieved by minimizing opportunities for the localized concentration of animals, improving distribution across the allotment and across each pasture, and by reducing the intensity of grazing for the allotment as a whole. In instances

where proposed improvements will involve potential ground disturbance, such as stock tanks and other water developments, a 100 percent archaeological survey will be conducted for areas which have no previous survey coverage, or have outdated surveys, which do not conform to current standards.

Other, more specific mitigation requirements may be identified as each of these improvements is developed and a heritage inventory is made of their areas of potential effect. Such protective measures are developed in accordance with the goals of the project, taking into account site vulnerability as well as the methods of project implementation. All inventoried heritage sites are treated as eligible for the National Register of Historic Places with the exception only of those that have been formally determined to be not eligible in consultation with SHPO.

Archeological clearance must be approved with all necessary consultation with SHPO and the potentially interested Tribes prior to issuing any decision regarding the construction, modification, or removal of all improvements. This approach, based on long-term consultation with SHPO and on Region 3 policy as embodied in the Programmatic Agreement, specifically Appendix H—the Protocol developed pursuant to Stipulation IV.A of the Programmatic Agreement—is considered to be the "standard operating procedure" for treating potential grazing impacts to heritage resources on the Tonto National Forest.

Protection measures identified under the Protocol include:

- Archaeological survey will be conducted for areas proposed for surface disturbance which have no previous survey coverage, or have outdated surveys, which do not conform to current standards.
- Relocation or redesign of proposed range improvements and ground-disturbing management practices to avoid direct and indirect impacts to historic properties.
- Relocation of existing range improvements and salting locations sufficient to ensure the protection of historic properties being impacted by concentrated grazing use.
- Fencing or enclosure of livestock from individual sensitive historic properties or areas containing multiple sensitive historic properties being impacted by grazing.
- Periodic monitoring to assess site condition and to ensure that protection measures are effective.

Other mitigation measures involving data recovery, for example, may be developed and implemented in consultation with the SHPO as the need arises. The appropriate tribes will be consulted, if the mitigation is invasive or if it affects a TCP or other property of concern for them.

Cultural resource surveys were conducted for this project in 2017⁸. A total of 58 archaeological sites were either revisited or identified during these surveys. The Tonto National Forest has determined that the proposed project will have no adverse effect on historic properties, as per *36 CFR 800.5(a)*, provided that the mitigation measures outlined below are implemented:

- Avoidance is the preferred mitigation for all historic properties.

⁸ A detailed report of these survey results is on file with the Forest Archeologist and summarized in the project record.

- The non-ground-disturbing removal of an existing North-South fence across site AR-03-12-01-00043 and the construction of a new East-West fence between sites AR-03-12-01-00043 and AR-03-12-01-1866 would provide better site protection for both of these historic properties.

The 1985 Forest Plan and its Amendments 21 (May 3, 1995) and 29 (July 31, 2017) establishes standards and guidelines (under Decision Unit 3) that are applicable throughout the Forest regarding the management and protection of prehistoric and historic archaeological sites and other historic properties. The Amendment states that interpretive opportunities for Heritage (archaeological and historic) resources should be pursued as a high priority when opportunities arise. Other management direction, specifically applied toward the protection of archaeological and historic resources from looting or vandalism is found in the *Archaeological Resources Protection Act*. If opportunities to provide educational and interpretive signs are identified in the project area, these may be installed under the direction of the Forest Archeologist and approval of the Cave Creek District Ranger⁹.

Other Alternatives Considered

In addition to the selected alternative, I considered a no grazing alternative per *Forest Service Handbook 2209.13*—Alternative B as detailed in Chapter 2 of the Final EA. Under this alternative, the term grazing permit would be cancelled following guidance in *36 CFR 222.4* and *FSM 2231.62*. According to *Forest Service Manual, Southwest Region Supplement 2240.3(2)*, “The Government holds title to all range improvements.” Existing boundary fences will be assigned to adjacent permittees (if applicable). Interior fences and other infrastructure will be removed, as funding or workforce allows, mitigating potential adverse impacts to wildlife and public users. Water developments, important for wildlife, will be maintained, where feasible, or removed using other program funds or volunteers. Under this alternative, if the Native Fish Coordination Team were to identify suitable habitat for native fish introduction within the Copper Creek Allotment, the effects of grazing management would not be a consideration.

I did not select this alternative because it does not meet the purpose and need for this project, as previously detailed.

Public Involvement

In March of 2015, the Forest Service and the Bureau released a combined scoping letter soliciting comments on management of the allotments. Ten written comments were received. Commenters were supportive of the collaborative effort for managing the allotments and many stated they had participated in previous meetings to discuss and support the proposed Coordinated Resource Management Plan. Most comments were focused on protecting the numerous cultural resources in the area, though measures to protect rare plants, soils in riparian areas, fawns during fawning season, and invasive weed control were also raised as concerns. One commenter was also concerned that increasing available water would increase the potential for West Nile Virus.

⁹ Locations for potential educational or interpretive signs have not been identified. Additional cultural clearances or surveys may be necessary before any signs are installed.

As the Bureau and Forest Service are with different federal departments (Department of Interior and Department of Agriculture respectively), regulations governing compliance with the *National Environmental Policy Act* are also different. As time passed, and joint analysis was conducted, each agency decided they would prepare their own environmental analysis to minimize process confusion (internally and externally) and improve efficiency moving forward. To honor the intent of the Coordinated Resource Management Plan and all of the public involvement to date, the Bureau and Forest Service committed to coordinate public outreach and required consultation work as much as possible throughout the completion of the planning processes.

In April 2016, the Cave Creek District Ranger initiated a review of the 1997 Environmental Assessment for the Copper Creek Allotment consistent with Chapter 10 of Forest Service Handbook 1909.15 to determine whether current management was within the scope of actions considered and analyzed as described in that EA. The review determined that the 1997 Environmental Assessment and Decision Notice/Finding of No Significant Impact was insufficient to authorize grazing in compliance with the draft Coordinated Resource Management Plan, specifically in relationship to management actions on the Gila Chub (Listed; Endangered, 2005). It was further determined at that time that there was a need to engage in more current consultation with the U.S. Fish and Wildlife Service and the State Historic Preservation Office.

Despite the Forest Service's decision to prepare a separate environmental assessment from the Bureau, all relevant issues raised during the combined scoping process were considered by the Cave Creek District Ranger when developing alternatives, mitigations/monitoring and environmental analyses for the current action on the Copper Creek Allotment.

On February 24, 2017, a Public Notice was published in the *Arizona Capitol Times*, the newspaper of record, notifying the public that the Preliminary EA was available on the Schedule of Proposed Actions and beginning the 30 day public comment period. Additionally, notices were sent to 60 interested and affected parties known to the Forest, the Bureau of Land Management, and the Arizona Game and Fish Department advertising the available comment period. A public meeting was also held on March 20, 2017, during the public comment period, to share information about this project and the opportunity to comment, as well as to share information about the status of analysis for the Bureau's Horseshoe Allotment. Approximately 60 people were notified directly by email of this public meeting and a news release was issued by the Forest¹⁰.

Eight comment letters were received. The majority of comments concerned the protection of the vast amount of cultural resources located in the project area and of the protection of riparian resources¹¹. The archaeological survey for the Copper Creek Allotment, follows the approach outlined in *Appendix H: Standard Consultation Protocol for Rangeland Management of the First Amended Programmatic Agreement Regarding Historic Property Protection and Responsibilities Among New Mexico Historic*

¹⁰ Mailing lists of all agencies and persons contacted are available in the project record.

¹¹ For a complete detail on how comments on the Preliminary EA were addressed, see the Response to Comment Report in the project record.

Preservation Officer, and Arizona State Historic Preservation Officer, and Texas State Historic Preservation Officer, and Oklahoma State Historic Preservation Officer, and the Advisory Council for Historic Preservation, and USDA Forest Service Region 3. Per the procedures outlined in Section II.C, "the standard Section 106 process will be implemented on all range improvements and ground disturbing management practices that are planned and have been identified on the ground at the time of the NEPA analysis. This includes new range improvements, vegetation treatments, or other ground disturbing practices and activities." Surveys were completed on nearly 800 acres of the allotment in 2017, the resulting effects determinations and recommendations are incorporated into this decision (see above). Appendix, Standard Consultation Protocol for Rangeland Management developed pursuant to Stipulation IV.A of the Programmatic Agreement, is considered to be the "standard operating procedure" for treating potential grazing impacts to heritage resources on the Tonto National Forest. Effects to these resources can be found in the Heritage Resources section of the Final EA.

Another area of common concern in public comments was how the reauthorization of livestock grazing would impact riparian areas within the allotment. One of the most important factors influencing riparian conditions is utilization (Mosley *et al.* 1999; Clary and Kruse 2003). Forage utilization will be managed at a level corresponding to light to conservative grazing intensity in order to provide for grazed plant recovery, increases in herbage production, and retention of herbaceous litter to protect soils. Conservative use equates to 30 to 40 percent on herbaceous species and up to 50 percent use on browse. Consistent patterns of utilization in excess of 40 percent on key species in key areas will be used as a basis to modify management or take administrative actions necessary to reduce utilization in subsequent grazing seasons. Light to conservative use levels, in addition to mitigation measures such as not trailing livestock through riparian areas, nor placing salt and/or mineral supplements within stream or riparian corridors will ensure direct and indirect effects to riparian areas and stream channels will be minimal. These mitigation measures are detailed in the Management Practices and Mitigation Measures section of the Proposed Action in Chapter 2 of the Final EA. Utilization monitoring and mitigation measures are intended to achieve the desired conditions identified in the Purpose and Need for this project. If desired conditions are not being achieved, the Management Tools described in the Proposed Action would be implemented to ensure that progress towards achieving desired conditions is occurring at an acceptable rate. My decision will also authorize the installation of additional water sources for cattle away from riparian areas. By adding additional water sources, livestock distribute across a pasture more evenly. If the only water source is in a riparian area, then those areas have concentrated use that can quickly exceed our utilization standards. By increasing water sources, livestock tend to travel around the allotment to more prime forage areas not needing to go as far to any specific water source, thereby relieving pressure on our critical riparian areas.

Finding of No Significant Impact

After considering the environmental effects described in the Final EA and incorporated specialist reports, I have determined that the Proposed Action will not have significant effects on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Details of the finding of no significant impact can be found in the Final EA. Thus, an environmental impact statement is not necessary and will not be prepared.

Findings Required by Other Laws and Regulations

This decision is consistent with the Tonto National Forest Land Management Plan. As discussed in the separate resource sections of Chapter 3 and in detail in the finding of no significant impact section of the Final EA, the actions associated with the Proposed Action comply with all applicable laws that the Forest Service must comply, including but not limited to: *Multiple Use Sustained Yield Act; Wilderness Act; Forest and Rangeland Renewable Resources Planning Act; Federal Land Policy and Management Act; Clean Water Act; Endangered Species Act; and Migratory Bird Treaty Act.*

Administrative Review and Objection Rights

The analysis for this Decision Notice was completed under the authority of the Project-level Predecisional Administrative Review Process per *36 CFR 218 parts A and B.*

On August 11, 2017, the legal notice for the objection period for the Copper Creek Grazing Authorization project was posted in the *Arizona Capitol Times* and an email we sent to all participants who had standing to object for this project. In this notice, the public was notified that a draft decision based on the final environmental assessment was made following the pre-decisional objection process, pursuant to Forest Service regulations at *36 CFR 218*. No formal objections were filed.

Implementation Date

Implementation of activities under the selected action will occur based on this Decision Notice. Once this decision is signed, implementation of the Copper Creek Grazing Authorization project can begin immediately pursuant to regulations at *36 CFR 218*.

Contact

For additional information concerning this decision, contact: Eric Hoskins, Rangeland Management Specialist, at 28079 North AZ Highway 188, Roosevelt, Arizona 85545, phone (602) 225-5332 or ehoskins@fs.fed.us.



MICAH GRONDIN

Cave Creek District Ranger

Tonto National Forest

01-26-2018

Date

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