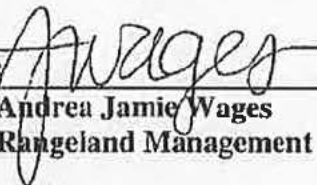


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<b>GRAZING PERMIT - PART 3</b> (Reference FSM 2230)	Permittee Number			
	Permit Number 12158			

**Allotment Management Plan  
(AMP)  
Captian Allotment  
Globe Ranger District  
Globe, Arizona**

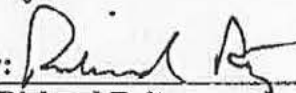
Prepared by:



Date: 02/06/2014

Andrea Jamie Wages  
Rangeland Management Specialist

Approved by:



Date: 02/06/2014

Richard Reitz  
District Ranger

Approved Allotment Management Plans contain pertinent information and further clarifies direction received from project-level NEPA and shall become included in Part 3 of your current Term Grazing Permit. Modification to AMP can be made, within scope of project-level NEPA. Changes to Forest Plan may precipitate a need for AMP modification, to stay in line with current policies (FSH 2509.21.1(3))

## **Introduction**

Capitan Allotment was analyzed in conjunction with Coolidge-Parker and Ranger Station Allotments. Forest personnel reviewed existing information, collecting field data where needed, to develop the purpose and need for action. District Ranger Larry Widner formally initiated an Environmental Assessment in 2003. A scoping letter was sent out to interested/affected parties to solicit comments from public concerning the proposed action in 11/24/2003. Public comments were analyzed in April 2004 to (1) from interested and affected parties; (2) define issues with proposed action; (3) develop alternatives to address significant issues identified.

In April 2013, Richard Reitz, District Ranger, signed a Decision Notice and Finding of No Significant Impact for Alternative 2, Proposed Action.

## **Goals and Objectives of Management**

Tonto National Forest Plan, as amended, identifies all goals and objectives for management of natural resources. The following are a few, but not all, specific goals and objectives identified for the Capitan Allotment:

- Maintain a minimum of 30% effective ground cover for watershed protection and forage production, especially in primary wildlife forage producing areas. Where [presently] less than 30% exists, it will be the management goal to obtain a minimum of 30% effective ground cover (Page 40-1)
- Forage use by grazing ungulates will be maintained at or above a condition which assures recovery and continued existence of threatened and endangered species (Page 42)
- Manage riparian areas to the level needed to provide protection and improvement (Page 42-2)
- Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, livestock forage production, and dispersed recreation. Watersheds will be managed so as to improve them to a satisfactory or better condition. Improve and manage the included riparian areas (as defined by FSM 2526) to benefit riparian dependent resources (Page 193)

Analysis outlined objectives for the Capitan Allotment:

- *Soil, Water and Vegetation:* Objective is to mitigate the effects of livestock and facilitate construction through use of Best Management Practices (FSH 2509.22) and adaptive management (FSH 2209.13).
- *Wildlife:* Objective is to mitigate impacts to wildlife from livestock grazing and disturbance associated with construction of range facilities.

- *Riparian Resources:* Objective is to minimize potential negative impacts to riparian areas and associated uplands which provide important wildlife habitat and watershed stability.
- *Heritage Resources:* Objective is to protect historic and prehistoric heritage sites from impacts caused by range improvement projects or livestock concentrations.
- *Recreation Resources:* Objective is to protect recreation sites and trails from impact caused by range improvement projects or livestock concentration.

A primary objective for this Allotment Management Plan is to move toward and eventually achieve desired conditions. The Environmental Analysis describes desired conditions as the following:

- *Vegetation:*
  - Increase cover of native herbaceous species
  - Increase plant basal area and litter cover
  - In grasslands, increase foliar canopy cover, basal cover and vigor of "decreasing" perennial grasses
  - In chaparral, increase foliar canopy cover and vigor of "preferred" shrub species
  - In pinyon-juniper woodlands, increase all above attributes
  - For all communities, allow for physiological needs of remnant perennial grass populations (i.e. conservative use, rest-rotation)
- *Soils:*
  - Manage or improve soils currently in satisfactory condition
  - Improve soils in impaired condition so they are attaining or moving toward satisfactory condition
  - Improve soils in unsatisfactory condition so they are attaining or moving toward impaired or satisfactory condition
- *Hydrology/Riparian, for Arrastra Gulch #1, Arrastra Gulch #2:*
  - Maintain residual herbaceous vegetation along greenline or streambank whenever precipitation is expected
  - Minimize the annual impacts to seedling and sapling riparian woody species
  - Limit physical impacts to alterable streambanks and greenlines, where applicable
  - Optimize riparian tree and shrub establishment, especially following episodic, regional winter storms
  - Increase the density, vertical and horizontal canopy cover of woody riparian species
  - Maintain or increase canopy cover of herbaceous species to at least 50% (or 5% to 25% for reaches not at a trace to 1%)
  - Decrease greenline to greenline width
  - Optimize the establishment of floodplains and streambanks
  - Improve stream channel function and stability
- *Wildlife:*
  - Identify, survey, map, and analyze habitat for all Federally-listed species. Identify management conflicts and enhancement opportunities. Correct any management conflicts or

problems.

- Manage Mexican Spotted Owl and Northern Goshawk habitats within the project area according to standards and guidelines in the Tonto NF Plan (Replacement Pages 40-1 through 40-13).
  - Manage Mexican spotted owl using appropriate recommendations and conservation measures from their species recovery plan.
  - Forage use by grazing ungulates will be maintained at or above a condition which assures recovery and continued existence of threatened and endangered species.
  - Coordinate with Range to achieve at least 80% of the potential riparian overstory crown coverage.
  - Coordinate with Range to achieve at least 50% of the cottonwood-willow and mixed broadleaf acres in structural Type 1 (by 2030).
  - Rehabilitate at least 80% of the potential shrub cover in riparian areas through the use of appropriate grazing systems and methods.
  - Allow for forage to maximize threatened and endangered species, management indicator species, and emphasis harvest species.
  - Manage chaparral type to emphasize production of whitetail deer.
  - Manage pinyon-juniper type to emphasize production of mule deer.
  - Provide wildlife access and escape ramps on all livestock and wildlife water developments.
  - Conduct surveys and write reports on allotments scheduled for re-analysis and possible stocking adjustments. Allow for forage to maximize Threatened and Endangered (T&E) species, management indicator species, and emphasis harvest species.
  - Continue to clear future proposed projects for threatened, endangered, proposed, and candidate plant and animal species. Clearances will be done by a wildlife biologist and reviewed by the Forest Biologist.
- Recreation:
    - Work toward range improvements being moved or built away from view of casual observer.
    - Work toward range improvements out of site of campgrounds, roads, and trails.
    - Salt, mineral block and water troughs placed well away from trails and campgrounds, where applicable.

### Adaptive Management

*Duration and timing of grazing:* The sequence and timing of pasture moves will be adjusted annually and documented in the annual operating instructions. Management may be adjusted through the use period based on monitoring of range readiness, ecological condition, and grazing impacts.

*Intensity of grazing:* Consistent patterns of utilization in excess of moderate intensity would be used as a basis to modify management practices or reduce livestock numbers in subsequent grazing years.

Livestock adaptive management will be based on annual variation in precipitation while maintaining a viable livestock operation. These limits set standards that will be monitored throughout the year to

determine if annual authorized numbers prescribed meet goals and objectives. Precipitation, specifically time and intensity, drives much of our rangeland perennial and annual plant production. Overall rain amounts will be used in conjunction with monitoring data such as plant vigor, health, diversity and occurrence in determining if desired conditions are met.

If additional tools are needed to mitigate or enhance effects of livestock grazing and management, those tools will be assessed separately. Tonto National Forest Plan is scheduled to be revised in the future. Change to Tonto National Forest desired conditions and objectives may require modification to AMP.

At annual operating instruction meetings, permittee, range specialists and other cooperative personnel will discuss any critical factors that may be affecting multiple uses, including livestock management. This group must focus on defining criteria, specific to these factors, which move management toward desired goals and objectives. Instructions will include these discussions, but final determination will be made by Forest Official in charge.

Adaptive management (FSH 2209.13) is a tool that uses documented results of management actions to continually modify management in order to achieve specific objectives; Practices include, but are not limited to:

- Monitoring indicates whether or not desired conditions are being achieved. If conditions are not trending toward the desired condition, then adaptive management tools, such as those listed, may be used to modify management:
  - Modifying specific number of livestock authorized annually
  - Adjusting dates for grazing
  - Changing kind of animal (i.e. cow/calf to yearling)
  - Modifying pasture rotations
- Changes that will not exceed limits for timing, duration, or frequency as defined in term grazing permit
- Implementing adaptive management through Annual Operating Instructions (AOI)
- Using monitoring to identify range improvement needs
- Applying further interdisciplinary review if circumstances are beyond scope of this Allotment Management Plan

## **Management Strategies**

### Term Grazing Permit numbers

<b>Number</b>	<b>Class</b>	<b>Kind</b>	<b>From</b>	<b>To</b>
395 - 2830 AUMs	Cattle	Variable	03/01	02/28

(33-236 adult cattle)

### Pasture Rotation

Timing, intensity and frequency of conservative grazing will be managed to allow for increase of perennial forage plants. Timing and intensity in lower and mid elevations areas will be controlled in order to provide

physiological needs of remnant grass populations. When grazing adjustments are needed, they will be implemented through AOI's, which will adjust numbers so livestock use is consistent with current productivity and sufficient to obtain goals and objectives of management through monitoring. Total use at end of the growing season on herbaceous forage plants (perennial grasses) will generally be conservative.

Use of livestock will be dependent upon achieving and maintaining desired ecological conditions within allotment. Livestock stocking to upper AUM limits will not occur during periods such as, but not limited to, drought or poor range condition. As monitoring identifies surplus perennial forage, not essential to maintaining desired ecological conditions, additional livestock stocking may increase toward, but not exceed, upper AUM limit as authorized through AOI.

#### Livestock Distribution Aids/Animal Husbandry

Practices/Aids to achieve proper distribution will be implemented, including but not limited to, herding, salting, and water distribution. Herding and proper water distribution is an essential tool for moving livestock to areas of low use and away from sensitive areas, such as riparian areas.

Salt or other supplements will be placed no closer than ¼ to water (developed or live), in areas of low use of forage, and those locations will be moved annually. Hay or bulk feed is not allowed on Forest lands, unless otherwise approved by Forest Official. Protein blocks, nutrition supplements and other attractants may be authorized prior to use by Forest Official.

Salt will not, knowingly be placed at or near archeological sites.

#### Allowable Use Standards

Forage utilization will be managed at a level providing for grazed plant recovery, increases in herbage production and retention of herbaceous litter to protect soils.

- Uplands
  - Perennial Herbaceous 30-40% of key species by weight
  - Browse 50% current years growth
- Riparian
  - Utilization in riparian areas will not exceed 20% of current annual growth by woody species.
  - Maintain residual herbaceous vegetation along the greenline or streambank whenever precipitation is expected.
  - In riparian areas, allowable use for obligate riparian trees species – limit use to <50% of terminal leaders (top 1/3 of plant) on palatable riparian tree species accessible to livestock (usually < 6 feet tall).
  - Deergrass – limit use to < 40% of plant species biomass. Emergent species (rushes, sedges, cattails, horse tail) – maintain six to eight inches of stubble height during the grazing period.

### **Monitoring Plan**

Monitoring would be done following procedures described in the Sampling Vegetation Attributes (1999),

Utilization Studies and Residual Measurements (1999), Region 3 Rangeland Analysis and Training Guide (FSH 2209.21), Service wide Rangeland Analysis and Management Training Guide (FSH 2209.14) and Grazing Administration Handbook, Chapter 90 and R3 Supplement (FSH 2209.13). These data are interpreted to determine whether management is achieving desired resource conditions, whether changes in resource condition are related to management, and to determine whether modifications in management are necessary. Effectiveness monitoring would occur at least once over the ten-year term of the grazing authorization, or more frequently if deemed necessary. Changes in riparian vegetation and stream channel geomorphology condition and trend will be measured at five to ten year intervals. Protocols are described in the Sampling Vegetation Attributes (1999), Utilization Studies and Residual Measurements (1999), Cowley and Burton (2005), or the most current acceptable method.

Implementation monitoring would occur yearly and would 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 Sampling Vegetation Attributes (1999), Utilization Studies and Residual Measurements (1999) and with consideration of the Principles of Obtaining and Interpreting Utilization Data on Southwest Rangelands (Smith et al. 2005). These data could include browse utilization measurements, perennial grass stubble height measurements, photo points, or height/weight relationships for certain perennial grass species. Utilization measurements in riparian areas are made following the Sampling Vegetation Attributes (1996), Utilization Studies and Residual Measurements (1996), and Cowley and Burton (2005) or the most current acceptable method and would gather the information described under the proposed action and alternatives.

Utilization 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. Data collection procedures and interpretation would consider guidance contained in the Principles of Obtaining and Interpreting Utilization Data on Southwest Rangelands (Smith et al. 2005) publication. Over time, changes in resource conditions or management may result in changes in livestock use patterns. Recent and future facility changes and additions i.e. water developments, fences is anticipated to positively affect favorable grazing patterns. Monitoring to detect effect of these facility changes is ongoing and determination of effect has yet been established. 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.

Permittees would be encouraged to participate in monitoring activities. Records of livestock numbers, movement dates and shipping records would be kept by the permittee and would be provided to the District Range Staff annually.

#### Effectiveness Monitoring

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

*Range Condition and Trend:* Parker Three-Step and other transect monitoring techniques were established throughout. Photo points and vegetative ground cover data show how the site has changed over time.

Canopy cover would provide an indication of how plants are growing, assuming that if they are getting

bigger and occupying more space they are doing well and can be a relative gauge of vigor.

### Implementation Monitoring

Implementation monitoring will occur at any time during the grazing year and can include the following, but are not limited to, allotment inspection and improvement reports, permit compliance, forage production and utilization, and precipitation records.

*Permit Compliance:* Throughout each grazing year Forest Service personnel would monitor to determine accomplishments of the grazing permit terms and conditions, the AMP, and the Annual Operating Instructions (AOI).

*Allotment and Range Improvement Inspections:* Allotment inspections are a written summary documenting compliance monitoring to provide an overall history of that year's grazing. This document may include weather history, the year's success, problems, improvement suggestions for the future, and a monitoring summary.

*Forage Production and Utilization:* Utilization measurements (ocular and/or actual measure) would be taken in key areas which would reflect grazing effects within the allotment.

Frequency and ground cover data were collected using the widely accepted Plant Frequency Method (Ruyle 1997). These data monitors trend in plant species abundance, plant species distribution, and ground cover. This would provide information on plant composition and additional information on regeneration.

*Permittee monitoring:* Permittees that engage in monitoring without Forest Service involvement is highly recommended. For example, utilization levels, precipitation amounts, livestock counts and actual pasture rotation dates are a few types of permittee monitoring. Yearly, reports and inspections will be given to your Rangeland Management Specialist to be used with other data at annual meetings to determine if desired conditions are being achieved.

### Riparian Monitoring

Arrastra Gulch #1 and #2 both lie in Indian Springs pasture and during this analysis had a condition of unstable and severely impaired, respectively.

Monitoring in riparian areas will focus on these locations with objectives to achieve allowable use standards, using monitoring methods listed above. Monitor for increasing riparian shrub and woody species cover. Monitoring strategy will include specified riparian objectives and desired conditions for riparian management measures, listed below.

### City Well and Hayes pasture monitoring

Monitoring will be focused to improve grazing conditions with adaptive management strategies to increase soil organic matter and improve perennial grass richness and evenness.

Monitoring will use methods from above referenced guides to focus on allowable use standards on perennial grasses and plant frequency and composition.

## **Management Measures**

Management measures include that mitigation needed to reduce or avoid resource impacts that may result from this decision. These measures have been used in previous decisions and have been found to be effective at reducing potential negative environmental impacts. They are consistent with applicable LMP

standards and guidelines and the terms, conditions, and conservation measures of the Biological Assessment completed for the Allotment. Implementation of these practices in combination with adaptive management strategies is intended to avoid adverse environmental impacts.

#### *Wildlife*

- All water developments (i.e. troughs and storage tanks) will include wildlife access and escape ramps.
- If in the future, a new list of proposed structural range improvements are needed and approved by Forest Official will be surveyed for threatened, endangered, or sensitive species prior to any ground-disturbing activities. Facilities will be designed and constructed to have no adverse effects on listed species.
- All troughs will be left operational year round for wildlife accessibility unless in limited circumstances where freezing temperatures may damage facilities.

#### *Heritage Resources:*

- Before range improvement maintenance or construction occurs, an archaeological clearance must be approved and all necessary consultation with SHPO (State Historic Preservation Organization) and the potentially interested tribes prior to issuing any decision regarding the construction, modification or removal of improvements. This approach, based on long term consultation with SHPO and on Region 3 policy as embodied in the *Heritage Consideration Checklist*. If it is determined that a site exists, the improvement must be located in such a way that it does not affect the site.
- No salting will occur within or adjacent to identified heritage sites.

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

- Provide for physiological fitness of remnant perennial grasses
- Achieve proper distribution through riding, herding, salting and water distribution.

*Noxious Weeds:* Noxious weeds located in these allotments would be treated as necessary. The permittee and Forest Service will coordinate the weed inventory and treatment. Noxious weed monitoring is carried out at the same time allotment inspections are conducted. As noxious weed populations are found they are mapped, monitored, and treated. Treatment methods would follow guidelines established in the "Final Environmental Impact Statement for Integrated Treatment of Noxious or Invasive Weeds" (2005).

#### *Recreation:*

- Any maintenance or construction of improvements throughout allotment will need to meet Forest Plan recreation standards and Management area 2D (1985 TNF Plan, as amended)
- Excluding livestock from improved recreation and residential sites and facilities through approved positive control (i.e. fencing) or "virtual fencing" methods that will meet Forest Plan requirements of Management Area 2D.

#### *Riparian:*

- Livestock will be moved from the critical area or pasture when allowable use levels have been met.

- Salt will be located a ¼ up to ½ mile away from water and salting locations will be moved annually.
- Restricting livestock use in riparian areas during and after a climatic event such as drought and flooding to support limited physical impacts to alterable streambanks and/or greenlines, minimize annual impacts to seedlings and sapling riparian woody species, and maintaining herbaceous vegetation along streambank or greenline.

## **Administrative**

### Range Improvement Maintenance

#### *Existing Improvements*

Range improvements references any activity or program “designed to improve production of forage and included facilities or treatments constructed or installed for the purpose of improving range resource or management of livestock” (36 CFR 222.1(21)), are an effective part of any grazing management plan. Permanent structures such as stock tanks, storage tanks, pipelines, troughs, fences, etc are located in Part 3 of your Term Grazing Permit. Temporary structures which are short lived and portable improvements will be added to your Term Grazing Permit through a modification or addition to your AOI, indicating type of temporary improvement, removal date, etc.

These improvements are on National Forest Lands and all improvements must be kept to Forest Service standards (Appendix 1). An issuance of a grazing permit and permittee’s acceptance does not convey improvement ownership.

According to Forest Service Manual, Regional Supplement, 2240.3, a schedule of maintenance of all improvements in your Term Grazing Permit, requires normal maintenance to maintain the improvements in usable, sound condition. If range improvements deteriorate beyond the point that normal maintenance is needed, improvement will be considered a new project.

Tonto Forest Plan (1985), as amended (pg 43) “assures permittee maintenance of existing improvements on an annual basis to assure full life of project”. In order to set up a schedule of improvement maintenance in the next 5 years, at least 10% of existing range improvements will be maintained to usable, sound condition each year until all improvements are in usable, sound conditions. These specific improvements will be discussed with permittee and Forest Officer at yearly annual meetings.

A current map of existing improvements will be made part of your Term Grazing Permit.

#### *New range improvement projects*

Any new temporary or permanent range improvement project will require a separate level of analysis. Appropriate clearances will be required and any new improvement must be outside a ¼ of improved recreation sites or trails. Relocation of new improvements would be made if heritage sites exist.

### Annual Operating Instructions (AOI)

AOI’s specify annual actions that are needed to implement management direction set forth in NEPA, Forest Plan and Forest Service accepted peer reviewed studies. Development of an AOI should be a cooperative effort of range staff and permittee. Document shall clearly and concisely identify the obligations of the

permittee and Forest Service, and annual grazing management, requirements, standards and monitoring, in order to document compliance.

These instructions should include, but are not limited to:

- **Livestock Numbers:** Maximum annual livestock numbers authorized, including number, type, class, timing and duration.
- **Rotation Schedule:** Planned sequence of grazing, management prescriptions and monitoring.
- **Range Improvement and Maintenance:** All improvements to be maintained or built including responsible party and stipulations. Highlight at least 10% of improvements to be maintained during grazing year.
- **Grazing Prescriptions:** Allowable use and any other standards that may apply, which must be followed by permittee.
- **Monitoring:** Current season monitoring may include compliance, utilization, etc. Details of monitoring items and decision points are needed to determine when a change is necessary and to guide direction of those changes.

#### Salt, Salt Meal and Feeding

No salting within ¼ mile of water (live or developed), recreation sites or trails.

#### Travel Management Guidelines and/or restrictions

The Tonto National Forest is currently planning the implementation of the Travel Management Rule, as directed by the Washington and Regional Offices of the Forest Service. These programs are aimed at reducing non-essential roads for watershed and resource protection. These closures will be honored by the permittees.

If you need to enter a motor vehicle restricted area, you must have special authorization in the form of an Off-Road Vehicle Permit or specific authorization through your Annual Operating Instructions. Entering a restricted area without authorization is a violation of 36 CFR 261.