


# Allotment Management Plan Smith Canyon Allotment

USDA Forest Service  
Chino Valley Ranger District, Prescott National Forest  
Yavapai County, Arizona

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Reviewed by/ agreed to  Date 2/10/17  
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- The maintenance of fully functional riparian systems supported by herbaceous and multi-age woody vegetation, within site potential, that provides for stable stream channels and banks and habitat for riparian-dependent plants and animals;
- Protection and preservation of important historic and cultural sites; and
- The maintenance of suitable habitats for Management Indicator Species, Migratory Bird Treaty Act species, Forest Service Sensitive species, and for indigenous plant and animal species.

## Resource Objectives

The following management objectives were developed to measure progress towards meeting desired conditions:

- Improve or maintain cover of perennial grasses to achieve mid- to high similarity with the potential perennial grass canopy cover and composition as shown in the Ecological Classification for the Prescott National Forest for key TEUI map units; achieve an upward trend in vegetation condition towards this objective.
- Detect an improvement of vegetation spatial distribution (GAP) within 5-7 years (soil health).
  - Smith Canyon pasture; TEUI 427
  - Granites pasture: TEUI 461
  - Spider pasture TEUI 486
  - Smith Mesa pasture TEUI 490

## Grazing Management

### Permitted Numbers, Season of Use, and Animal Unit Months

| # of Livestock  | Season of Use | Animal Unit Months                                    |
|---|---------------|---|
| Between 200 to 275 head of cattle, cow/calf pairs and bulls | yearlong      | Not to exceed 3,300 Animal- Unit- Months <sup>1</sup> |

The period of grazing and the stocking numbers on NFS lands will be determined by monitoring, designated in the Annual Operating Instructions (AOI) and authorized in the Bill for Collection.

AOI will be prepared each year in cooperation with the permittee to allow for consideration of current allotment conditions and management objectives. This AOI will detail the current season's grazing schedule, the stocking level, the improvement maintenance needs, needed improvements, and the allowable use levels on key forage and browse species.

Annual stocking would be based on adaptive management, considering forage production, water availability, and resource conditions. Annual stocking could fall below the low end of the proposed stocking range. There are seven main pastures used in a

<sup>1</sup> Animal-Unit-Month (AUM) is the amount of oven-dry forage required by one mature cow of about 1,000 pounds, either dry or with a calf up to six months of age, or their equivalent, for a standardized period of 30 animal-unit-days.

The following measures will be applied in areas of concern where current conditions are not meeting desired conditions, and management objectives have been established to measure progress towards meeting desired resource conditions:

- Smith Canyon pasture: Incidental use levels (0-30%) to promote biomass retention and subsequent litter development (TEUI 427 & 461), and seasonal deferment and/or rest and improving livestock distribution by controlling access to waters and herding.
- Granites pasture: deferred season of use to allow further graminoid biomass retention (TEUI 461) and control access to water facilities to improve distribution. An additional water source is proposed that would distribute cattle away from the area needing improvement.
- Spider pasture: incidental use (0-30%) in the no capacity areas of TEUI 486 (Dillon field, south of Fair Oaks Road).
- Smith Mesa pasture: rest and incidental use (0-30%) in TEUI 490. Control access to water and place salt and supplement in locations to discourage concentrated use in TEUI 490.

Once desired conditions for vegetation or soil are being met in areas needing improvement, then the allotment-wide utilization standards could be applied.

In the event that the above resource protection measures do not accomplish site-specific resource objectives, additional optional measures may be implemented. These optional measures will be designed to address site-specific resource concerns and may include, but are not limited to, such things as temporary fencing, electric fencing, and reconstruction of existing non-functional improvements and construction of new improvements such as drift fences.

## **Rangeland Improvement Program**

### Construction of New Range Improvements:

Construction of the following new structural improvements has been approved to address resource concerns. These improvements are intended to aid in the achievement or maintenance of desired resource conditions by improving livestock distribution. The Forest Service will work in collaboration with the Permittee, AZ G&F and other partners as the opportunity presents.

Because of limited road access for large vehicles like well-drilling rigs, the proposed water developments on the Smith Canyon Allotment would likely be trick tanks (catchment apron that directs rainfall into a storage tank and pipeline system with troughs), or earthen stock tanks (dug out areas that collect rainfall directed from shallow ditches).

- Construct 3 reliable water developments in Smith Canyon Pasture:
  - one north of Sheridan Lake in the north half of section 21;
  - one on the south benches in NE quarter of section 35;
  - one in north half of section 6. Two of these (section 21 and 35) are to replace existing earthen stock tanks that are non-functional and replace with trick tanks.
- Cottonwood Pasture SW quarter of section 31;
- Granites Pasture north half section 4;

## **Drought Management**

Perennial grasses and major browse species need deferment/rest in order to provide time to recover from drought induced stress. Even when rested or deferred, if adequate precipitation is not received, recovery may not be adequate for livestock use.

Move cattle to the next scheduled pasture when utilization in pastures is met. If complete removal of livestock is necessary, they may be authorized to return to the allotment once conditions improve; meaning sufficient recovery from the effects of drought stress has occurred and there has been enough herbaceous production to support livestock numbers. Potential return of livestock will be evaluated no earlier than the summer growing season.

## **Monitoring and Evaluation**

### Implementation Monitoring

This monitoring will be conducted on an annual basis and will include such things as livestock actual use (# of head, # of months) and scheduled and unscheduled inspections to ensure that all livestock and grazing management measures stipulated in the permit, AMP, and AOI are being implemented (e.g. cattle numbers, on/off dates, rotation schedules, maintenance of improvements, mitigation measures).

*Monitoring activities would be focused on those resources that need improvement or where there is a concern for an important habitat type. For this project, there are soil and vegetation condition concerns in the Smith Canyon pasture in TEUI 427 and 46, and soil condition concerns in Granites pasture TEUI 461, Spider pasture TEUI 486, Smith Mesa pasture TEUI 490.*

- Canopy gap and vegetative ground cover will be measured at key areas in Smith Canyon pasture (TEUI 427), Granites pasture (TEUI 461), Spider pasture (TEUI 486), and Smith Mesa pasture (TEUI 490) Results of monitoring will be analyzed against baseline data or Ecological Classification description to determine if objectives are being met.

Forage utilization will be monitored on the allotment at key areas and at areas identified with site-specific resource concerns. *See Attachment 2, Key Area Map.*

The key area concept is based on the premise that no range of appreciable size will be grazed uniformly (Holechek, Pieper and Herbel, 1998). When key areas are “properly” used there may be substantial areas that are used more or less than the key areas, including some that will not be used at all. Forest Service personnel can work with the permittee in selecting these areas.

*(Monitoring of allowable use on key forage species in key areas is the joint responsibility of the Forest Service and the permittee. Although the Forest Service will make every effort to assist the permittee in ensuring compliance with standards, the permittee has the ultimate responsibility for ensuring that the allowable use standards are met).*

If periodic field checks indicate that plant vigor or production is poor, and bare soil is increasing, this would trigger a need to make adaptive management adjustments. This could also result in re-evaluation of vegetation or soil condition through effectiveness monitoring.

Field Checks will include informal inspections, formal inspections, and permittee compliance monitoring.

### **Informal Inspections**

**Attachment 1, Relevant Forest Plan Standards and Guidelines**

| <b>Range Management</b>      |  |
|------------------------------|--|
| <b>Std-Range-1</b>           | <b>Water troughs shall incorporate escape devices to prevent animal entrapments</b>  |
| <b>Std-Range-2</b>           | <b>Year-long livestock grazing in riparian areas (streams, springs, and seeps) shall be avoided to prevent adverse impacts to water quality and riparian habitat in those areas</b>  |
| Guide-Range-1                | The placement of salt, minerals, and/or other supplements for the purposes of livestock management should be located further than one-quarter mile from riparian areas or seasonally present water.  |
| Guide-Range-2                | For structural improvements: <ul style="list-style-type: none"> <li>• Implement design features that incorporate wildlife needs and reduce barriers to movement and entrapment hazards</li> <li>• Consider wildlife needs in fence placement and design to reduce barriers and hazards to movement and minimize chances of entrapment</li> <li>• Remove fencing when it is no longer needed</li> </ul>                               |
| Guide-Range-3                | After occurrence of wildland fire or mechanical activity that removes most vegetation, a time period for recovery, establishment, and regrowth of vegetation should be determined and applied to meet site-specific objectives   |
| Guide-Range-4                | Livestock salting should be located away from known locations of Southwestern Region sensitive plant species so that plants are not adversely affected by associated trampling   |
| Guide-Range-5                | Livestock use of woody riparian species (e.g. cottonwood, willow, ash, and alder) should provide for maintenance of those species and allow regeneration of new individuals leading to diverse age classes of woody riparian species where potential for native woody vegetation exists  |
| Guide-Range-6                | Grazing intensity, frequency, occurrence, and period should provide for growth and reproduction of desired plant species while maintaining or enhancing habitat for wildlife   |
| <b>Watersheds guidelines</b> |  |
| Guide-WS-4                   | Adverse impact to stream channel features (e.g. streambanks, obligate riparian vegetation) should be minimized by modifying management actions. Examples of modification could include, but are not limited to: adjusting timing and season of grazing, limiting use and location of heavy machinery, or avoiding placing trails or other recreation structures where recreation use could negatively affect stream channel features |
| Guide-WS-5                   | Ground cover sufficient to filter runoff and prevent erosion should be retained in riparian corridors, seeps, and springs  |
| Guide-WS-9                   | Along perennial streams, perennial intermittent streams, and spring ponds, mitigation such as offsite water for livestock should be provided to reduce impacts on riparian communities and groundwater dependent sites   |

Attachment 2, Key Area Map

