Big Bug Allotment Management Plan

Prescott National Forest

Bradshaw Ranger District

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Approved by: _____ Date: 2/8/12
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Introduction

The Big Bug Grazing Allotment is located on the Bradshaw Ranger District of the Prescott National Forest. Elevations on the allotments range from approximately 5,700 feet in the Whitehorse Pasture to approximately 7,700 feet in the Battle Fire Pasture. There are five distinct vegetative communities within this elevation range: Chaparral, Pinyon-Juniper Woodland, Ponderosa Pine and Ponderosa Pine/Gambel Oak Woodlands, Mixed Conifer, and Riparian.

Droughty conditions have affected vegetation and available water. Adaptive management practices, particularly the use of the drought management guidelines, has made a difference in regards to short term fluctuations in resource conditions. Range condition and trend data from the Environmental Analysis conducted on the Big Bug, Burnt Ranch, and Cold Springs Allotments in 2005 indicates that most (93-95%) of Big Bug, Burnt Ranch and Cold Springs Allotments are meeting or exceeding Forest Plan standards with all areas in fair to good condition and soil conditions are predominantly in satisfactory condition.

Goals and Objectives of Management

Desired conditions for this project are derived from the general Forest Plan goal of "manag(ing) forest lands with a primary emphasis on healthy, robust environments with productive soils, clean air and water, and diverse populations of flora and fauna" (Forest Plan, pg 11). Desired conditions for this project are focused on those resource elements within the scope of the decision that can be affected by livestock grazing and grazing management.

DESIRED CONDITIONS INCLUDE THE FOLLOWING:

1. Soil conditions in an adequate state to sustain long-term productivity.
2. Vegetative communities of diverse composition that provide for watershed health, wildlife habitat, and forage for herbivores.
3. Adequate vegetative ground cover to provide biological productivity and maintain environmental quality.

PROJECT OBJECTIVES INTENDED TO ACHIEVE THE ASSOCIATED DESIRED RESOURCE CONDITIONS FOR THE BURNT RANCH/COLD SPRING ALLOTMENTS ARE:

- Improve soil function to enhance soil conditions by striving to attain/maintain the following Vegetation Ground Cover (VGC) levels (effective litter and vegetative basal area).
    - Chaparral 40-60% VGC level
    - Ponderosa Pine 60-80% VGC level
- Manage for diverse population of flora that provides for watershed health, wildlife habitat, and forage for herbivores.
- Allow riparian vegetation to reach or move towards potential.
- Maintain the hydrologic system necessary to maintain state water quality standards.

Grazing Management Strategy

Grazing Period/Duration

- Permitted livestock: The term permit for the Big Bug Allotment is issued for grazing livestock and will not exceed 1,680 head months (140 head year round). Stocking may be more or less than the range in any given year to allow for exceptional fluctuations of weather and available forage.
- The grazing management system will incorporate growing season rest or deferment to provide for grazed plant recovery. Livestock use in pastures will be rotated annually so that the pastures are not used during the same season every year.
- No grazing is authorized in the Walker, Lynx, and Walker Road East Pastures. In addition, no grazing is authorized in the Lynx Lake Recreation Area and the Bootlegger or Upper Grapevine Pastures associated with the Grapevine Botanical Area. Permitted livestock will be allowed to trail through the Bootlegger-Grapevine Pastures on established roads to FR87A to the Coyote Springs Trail to the Mesa Unit with no drifting allowed.
- Proposed adjustments, based on fluctuations of weather and available forage, to the annual authorized livestock numbers may occur during the grazing year, and will be initiated through updating the cooperative Annual Operating Instruction (AOI).
- Pastures with riparian ecosystems would primarily be grazed during plant dormancy periods. In some instances, growing season grazing may occur when conditions would encourage good livestock distribution in the uplands.

Grazing Frequency and Timing

- Timing of livestock use will be determined through an assessment of adequate available forage. Pasture moves will be directed by utilization monitoring and management objectives specified in this AMP and in yearly AOI's.
- Specific dates of use and numbers of livestock will be determined using an adaptive management process based on monitoring of the allotment's resource conditions and comparison of management objectives. These dates and numbers will be designated by the AOI and authorized by the annual grazing application and validated by the Bill of Collection.

Grazing Intensity

- Forage utilization:
    - Upland Herbaceous will not exceed 40% in pastures used during the growing season. Grazed herbaceous forage is expected to have sufficient regrowth and recovery prior to the end of the growing season.
    - Upland Herbaceous will not exceed 55% in pastures used during the dormant season.
    - Upland shrubs and riparian woody species will not exceed 20% which is equivalent to browse of 50% of available leaders.
    - In Mexican Spotted Owl (MSO) Protected Activity Centers, utilization will not exceed 40% of annual forage production to provide for maintenance of critical habitat, adequate levels of residual plant cover, fruits and seeds, and plant regeneration.
- Utilization levels, in combination with resource characteristics (i.e. soil surface components, erosion status, plant vigor, etc) may indicate the need for annual changes in management in order to continue progress towards meeting desired conditions. Changes can include modifying authorized livestock numbers, season of use, class of animal, or other modifications defined in the Decision Notice.
- Application of standard practices such as salting, herding and controlling access to water to achieve proper distribution or relieve impacts on sensitive or natural concentration areas. Protein, salt, and other supplements will not be placed within ¼ mile of water or any identified sensitive plant population or areas with a loss of soil function.

Grazing Monitoring

Two types of monitoring will be used, implementation and effectiveness monitoring. Both qualitative and quantitative monitoring methods will be used in accordance with the Interagency Technical References, Region 3 Rangeland Analysis and Management Training Guide, and the Region 3 Allotment Analysis Handbook.

Implementation Monitoring

Implementation monitoring will be conducted by the Forest Service in cooperation with the permittee and may include but is not limited to: livestock actual use data, grazing intensity evaluations during the grazing season (within key and critical areas), utilization at the end of the growing season (within key areas), and visual observation of vegetation and ground cover. Monitoring will be used to determine current resource status and to ensure the allotment management plan, terms of the grazing permit and desired conditions are being met.

- **Critical Areas:** (Defined as: ***An area which must be treated with special consideration due to the inherent site factors, size, location, condition, values, or significant potential conflicts among uses***).
    - Riparian areas and springs across the allotment.

- **Key Areas:** (Defined as: ***A relatively small portion of a range, selected because of its location, use, or grazing value as a monitoring point for grazing use. It is assumed that key areas, when properly selected, reflect the over-all acceptability of current management over the range and serve as a representative indicator sample of range conditions, trend and degree of grazing use.)***
    - Key areas for the allotment and individual pastures will be determined in the near future by the Forest Service in conjunction with the grazing permittee.

EFFECTIVENESS MONITORING

Effectiveness monitoring will evaluate the success of management in achieving the desired objectives will occur within key areas on permanent transects at an interval of ten (10) years or less. Effectiveness monitoring may also be conducted if data and observations from implementation monitoring (annual monitoring) indicate a need. Initial baseline monitoring will occur.

Adaptive Management

Adaptive management allows the Forest Service to adjust: the timing, intensity, frequency and duration of grazing; the grazing management system, and livestock numbers. If adjustments are needed, they are implemented through the Annual Operating Instructions. Adaptive management will also allow for the optional construction of new and existing rangeland improvements if they have been identified and are determined, through monitoring, to be necessary for achieving resource objectives.

Range Improvements

All new fencing and reconstruction of old fence will be built to the 1986 Prescott National Forest Land Resource Management Plan standards (LRMP, page 35) to provide for wildlife passage through the fence. At a minimum, this will be a 4-strand fence with a smooth bottom wire 16 inches off the ground and a total fence height of 42 inches or less with a minimum spacing between the top wire and second wire of 12 inches.

Proposed rangeland improvements that may be constructed as needed based on monitoring include:

- An exclosure fence installed around the riparian area in the Whitehorse Pasture.
- Livestock exclosure fencing around springs located in the Smith Pasture.

RANGE IMPROVEMENT MAINTENANCE SCHEDULE

All existing range improvements are shown on the allotment map and range improvement inventory sheets of the permit. The grazing permittee is responsible to maintain all improvements assigned to the term permit.

All maintenance must be done annually whether the allotment is grazed or not.

Maintenance must occur throughout the season and cannot be a one-time action.

Damage resulting from big game, wind, other acts of nature, or human caused actions, must be repaired in a timely manner so as to ensure the integrity of the structures.

All maintenance of exterior fences must be completed prior to the turn-on date each year. It is the responsibility of the permittee to coordinate with adjacent allotment permittees to ensure maintenance is completed in a timely manner.

Mitigation Measures

Soil and Water

Best Management Practices will diminish livestock grazing impacts on soil and watershed conditions to comply with the Clean Water Act.

Practices include but are not limited to:

- Preparation of annual operating instructions with the permittee to allow for consideration of current allotment conditions and management objectives.
- Periodic field checks to identify needed adjustments in season of use and livestock numbers, forage utilization, assessment of rangeland to verify soil function, vegetation health and trend.
- Application of standard practices such as salting, herding, and controlling access to water to achieve proper distribution or lessen the impact on areas which are sensitive or are natural concentration areas.
- Pastures with riparian ecosystems will be grazed primarily during plant dormancy periods.

Wildlife/Rare Plants

Wildlife/Rare Plants mitigation measures are important to maintain habitat and population needs. Relevant mitigation measures include the following:

- No human disturbance is allowed in Mexican Spotted Owl (MSO) Protected Activity Centers (PAC) during the MSO breeding season, March 1 – August 30.
- No livestock management activities (herding, fence repair) will be allowed within ¼ mile of the fence intersection between Bannie Eugene and White Horse Pastures and the recreation boundary fence during bald eagle occupation of its nest beginning December 1 and extending potentially through June 30.
- All new or reconstructed fencing would be built to accommodate wildlife passage using a 4-strand fence with a smooth bottom wire 16 inches off the ground and a total fence height of 42 inches or less.

- All new or reconstructed water developments would include wildlife access and escape ramps.

APPENDIX 1

BEST MANAGEMENT PRACTICES

Range Improvement Installations

The following BMP's provide general guidelines for newly constructed range improvements. Range improvements may be constructed as an adaptive management technique.

24.22 Special Erosion Prevention Measures on Disturbed Land

All areas of surface disturbance will be treated following completion to prevent erosion. Areas will be ripped or scarified, and smoothed or sloped to return the areas to its natural contours, if deemed necessary.

24.16 Streamside Management Zone

All areas within 150 feet of a drainage are in a streamside management zone. These areas require special soil and water conservation prescription prior to implementation.

25.16 Soil Moisture Limitations

All operations will be conducted during periods when the probabilities for precipitation, wet soils, and runoff are low.

25.18 Revegetation of Surface Disturbed Areas

All areas that have disturbance will be evaluated to determine if reseeding is necessary or if natural recruitment is adequate. TES will be used to determine the appropriate grass seed specification.

24.3 Slash Treatment in Sensitive Areas

All areas will be mulched with vegetation slash, certified weed free hay, or any other material deemed appropriate

24.14 Protection of Extremely Unstable Lands

Range improvement installation locations will avoid unstable lands. Unstable lands that are unavoidable will require special erosion control measures.

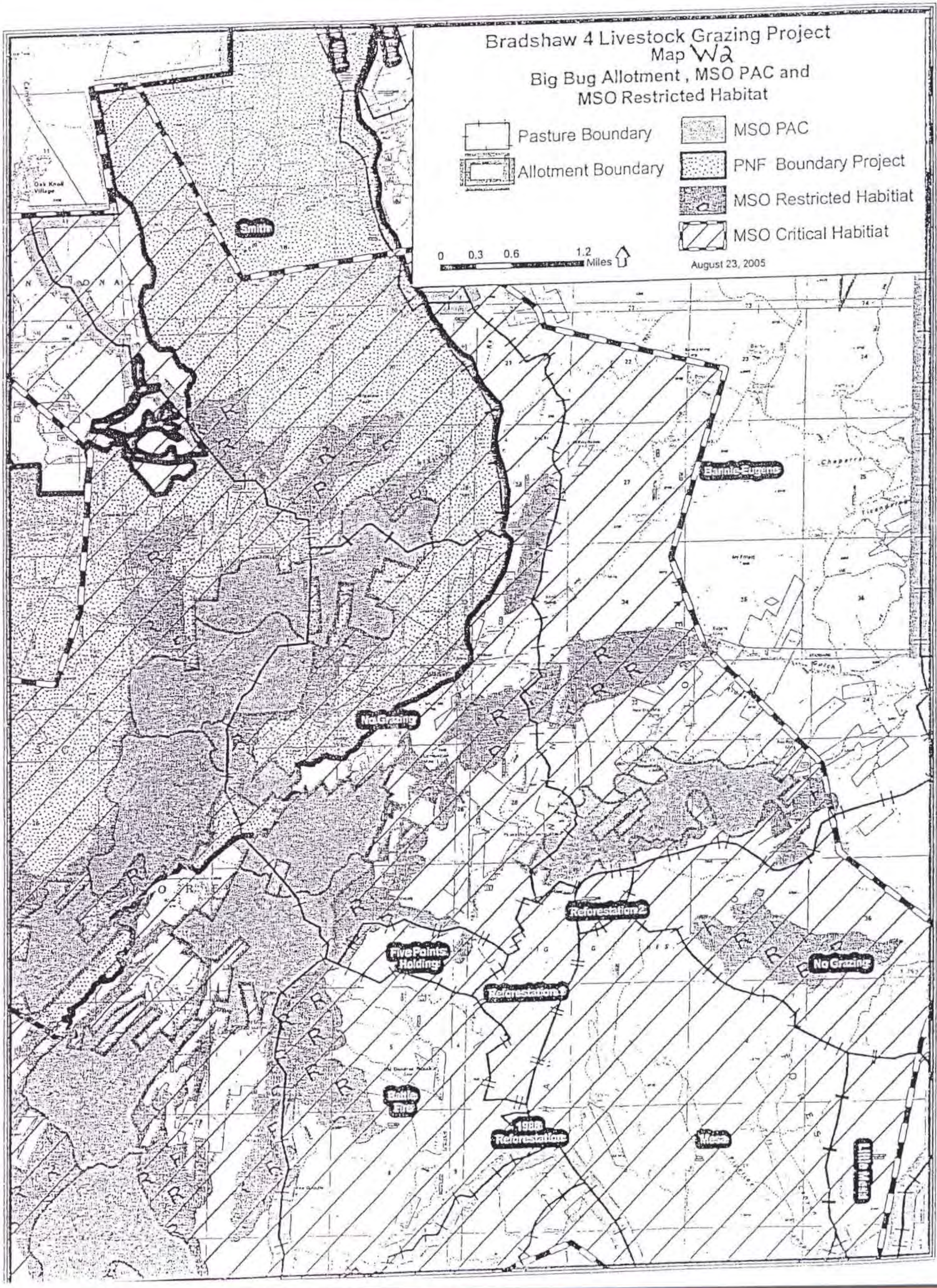
41.25 Maintenance of Roads

Road maintenance will concentrate on improving drainage. Road drainage measures will not channel run-off directly into stream courses. This includes out-sloping the road and maintaining leadoff ditches. Roadwork will not occur during wet or storm conditions.

31.0 Fire Recovery

Recovery/Establishment: Livestock use will not be permitted until the soils and vegetation have recovered (USDA & USDI, 2002).

Grazing Management After Recovery/Establishment Period: An evaluation is required at the end of the second growing season to determine if additional practices are needed (USDA & USDI, 2002).



Bradshaw 4 Livestock Grazing Project
Map W2
Big Bug Allotment, MSO PAC and
MSO Restricted Habitat
Pasture Boundary
Allotment Boundary
MSO PAC
PNF Boundary Project
MSO Restricted Habitiat
MSO Critical Habitiat
0 0.3 0.6 1.2 Miles
August 23, 2005
Smith
Bannie-Eugene
No Grazing
Reforestation2
Five Points Holding
Reforestation1
No Grazing
Battle Fire
1988 Reforestation
Mesa
Little Wash