ALLOTMENT MANAGEMENT PLAN

FOR THE

DUQUESNE ALLOTMENT

SEIRRA VISTA RANGER DISTRICT

CORONADO NATIONAL FOREST

Prepared By: _____ Date: 4/29/05

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Agreed To By: Earl M. Hardy Date: 4/29/05

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Permittees

Approved By: _____ Date: 04/29/05

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INTRODUCTION

The Duquesne Allotment has been permitted to Earl M. and Georgiana K. Hardy since December 1995. In 2005, an environmental analysis (EA) was completed, and a new term permit was issued for a range of 127-175 cow/calf cattle year long (CYL), with an additional 10 CYL private land permit. The EA and decision notice were the guiding documents for this allotment management plan.

The Duquesne Allotment lies on the east side of the Patagonia Mountains in Santa Cruz County, Arizona. The north end is seven miles southeast of Patagonia, and the south end is less than one mile from Mexico. Elevations range from 5,000 to 7,000 feet. The total acreage is 12,536 acres, of which 9, 554 forest acres are considered capable of supporting livestock grazing. Approximately 1300 acres of alienated (non-federal) land consisting of patented mining claims are found in the interior of the allotment, primarily in the vicinity of Washington Camp and Duquesne. Most of these acres are unfenced and available to Duquesne Allotment cattle. These lands have limited grazing capacity and are not included in capacity estimates for the allotment. The permittee owns 62 deeded acres and leases 970 acres in the vicinity of Washington Camp, which are the basis for the private land permit.

The allotment is broken into 13 pastures, and has historically been grazed as a two-herd deferred rotation, consisting of a northern herd and a southern herd. Allowable use has been set at 45% of key species in key areas. The lack of reliable waters in several pastures on the allotment contributes to uneven livestock distribution. During dry periods, dirt stock tanks go dry and livestock concentrate around the few reliable troughs and wells.

An allotment analysis conducted in 1960 indicated that of the primary range, 3% was in good range condition, 77% was in fair condition, and 20% was in poor condition. All of the 1588 acres of secondary range was considered good condition. An analysis conducted in 1999 indicated that approximately 90% of the allotment was in good ecological condition and 10% was in fair condition. No differentiation was made between primary and secondary range in 1999. Riparian studies conducted in 1999 reported good and fair riparian conditions in Duquesne Wash and Finly & Adams Canyon, respectively. It is worth noting that different methods were used during the 1999 range and riparian analyses than were used in the previous studies.

During the San Rafael ecosystem planning effort of 1992-94 desired conditions were described for the Forest land in the area of the San Rafael Valley. The desired conditions and objectives in this document are strongly influenced by that planning effort.

GOALS & OBJECTIVES

The Coronado LRMP (page 10) contains the following goals for the range program on the Forest:

- To restore rangeland to at least moderately high ecological condition (70% to 75% of potential production, fair range condition) with stable soil and a static-to-upward trend.
- Produce livestock products consistent with other resources and uses.
- Eliminate grazing from areas not capable of supporting livestock without significant detriment to range or other resources.
- Balance permitted grazing use with grazing capacity.
- Provide habitat for wildlife populations consistent with the goals outlined in the Arizona and new Mexico Department of Game and Fish Comprehensive Plans and consistent with other resource values.

- Provide for ecosystem diversity by at least maintaining viable populations of all native and desirable nonnative wildlife, fish and plant species through improved habitat management.
- Improve the habitat of and the protection for local populations of Threatened and Endangered species to meet the goals of the Endangered Species Act of 1973.

The grazing permit and allotment management plan for the Duquesne Allotment will support these goals by providing for the following specific objectives, which constitute the desired condition in the analysis area:

- Grazing activities contributing to impaired soil quality are corrected through improved distribution.
- Ecological condition as expressed by the number of acres in fair or better condition is maintained or improved.
- Range production and movement toward site potential for each soil/vegetation site is increased.
- All grazing improvements on all allotments are in proper working order.
- Develop reliable upland waters to improve livestock distribution and pasture reliability.
- Increase rest periods in all pastures.

The purpose of this allotment management plan is to describe on-the-ground management practices, which will achieve the above goals and objectives.

ALLOTMENT MANAGEMENT PLAN

A. Grazing Strategy

To improve distribution and lengthen rest periods in all pastures, a single herd rest-rotation plan will be implemented. Development of reliable upland waters is required for a single herd rotation to be successful, and should be the highest priority. The completion of three pipelines from existing wells will provide adequate water to implement the rotation.

Under a single herd rotation, the herd will spend the winter months in the southern pastures (Callihan, Duquesne, and Santo Nino) from October – March and summers in the northern pastures. The northern pastures are divided into four groups of roughly the same capacity (Apache; Upper and Lower Mowry; Sepprel and South Mowry; L&J and Harristeen). Three of the four northern pasture groups will be used each year, with the fourth being rested. Growing season (July-September) use will occur in two of the four groups each year, followed by growing season rest the next two years. The Callihan/Breeding will be used for fall shipping in October. The Finley & Adams will be used as a travel trap for approximately two weeks in both the spring and fall. The order in which the Duquesne and Santo Nino pastures are used will alternate to provide for cool season species' growth. See the attached rotation guide. Until the Mowry and Shaffer pipelines are completed and a single-herd rotation is implemented, no more than 2376 AUM's (150 CYL cow/calf) will be authorized.

This rest-rotation plan is intentionally designed to be fairly flexible. Actual move dates will be dictated by forage and water availability. Utilization in all pastures will not to exceed 45% in the key areas. Herding and salting will be used to ensure allowable use is not exceeded. Salt and supplement will be placed appropriately, on good feed, at least ¼ mile from water and out of livestock concentration areas. Salt and supplement locations should be rotated so as not to

degrade a particular site. All troughs should have water when livestock are not present, and be equipped so that small animals can safely enter and exit.

B. Terms & Conditions from Biological Opinion

The following mitigation measures have been developed to reduce or eliminate potential wildlife impacts:

- All range construction projects will be designed to avoid the destruction of agaves and the disturbance of lesser long-nosed bat roosts. If impacts to agaves are unavoidable, the Forest will ensure that no more than 1% of agaves within 800 meters of the project are impacted.
- Sonora Tiger salamander stockpond management and maintenance guidelines are in effect on the Duquesne Allotment and will continue to be implemented (EA p. 15, PR Doc. 22). The Forest will continue to inventory stock ponds within the range of the salamander with the objective of identifying sites where bankline vegetation or submerged aquatic cover can be enhanced to benefit salamander habitat.
- The Forest will implement conservation measures on the Duquesne Allotment in order to minimize impacts to Chiricahua leopard frog (EA p. 15). These measures include requirements to survey for and salvage frogs during stock pond cleaning activities; measures designed to minimize the introduction of non-native species or chytrid contamination into occupied sites; measures to reduce direct mortality and damage to aquatic cover as a result of livestock impacts and the requirement to monitor and report incidental take. The Forest will continue to inventory stock ponds within the range of the Chiricahua leopard frog with the objective of identifying sites where bankline vegetation can be enhanced to benefit frog habitat.
- Stockponds will be evaluated for the feasibility of partially fencing tanks (or completely fencing tanks in the case of double tanks, or if upland water is developed in the vicinity) for habitat enhancement of aquatic species.

C. Other Mitigation Management Practices

- The District Biologist in cooperation with AGFD has identified Mearns' quail key areas within identified high quality habitat. Allowable use within key areas will be 45% maximum with a desirable level of 35-40%. The objective of these use levels will be the maintenance of an average minimum standard of six inches of herbaceous stubble height as quail cover. This standard will be met within the normal cycle of wet and dry years.
- All water developments will be equipped with wildlife access and escape ramps, and water will be available in all troughs whether livestock are present or not, unless water has been turned off to reduce livestock impacts in a particular portion of a pasture.
- All new fencing will be built to Forest Plan standards that 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.
- The following Best Management Practices for grazing (FSH 2209) apply: Annually prepare an operating plan with the permittee to allow for current allotment conditions; make periodic field checks to identify needed adjustments in season of use and livestock numbers, including

stock counts, forage utilization, assessment of rangeland to verify soil and vegetative condition and trend; and use necessary techniques to achieve proper distribution or lessen the impact on areas which are sensitive or will naturally be overused.

D. Livestock Distribution Aids

- Use of salt, protein, and other nutritional supplements are encouraged for livestock health and to improve livestock distribution. All supplements will be placed on forage, no less than ¼ mile from water, and away from natural concentration areas such as drainage bottoms, saddles, roads and trails. Supplement locations will be rotated periodically. No hay or bulk feed may be fed on Forest Lands.
- Supplements will be packed into remote country, and not simply dumped out of a truck where it is convenient, as this does not promote improved livestock distribution.
- Water may be turned off to discourage livestock use in a portion of a pasture, but must be made available again once livestock leave the pasture.
- New water developments will be constructed in uplands to encourage livestock use out of the bottoms.
- Existing water lots around dirt tanks will be maintained in satisfactory condition to control livestock access to water.
- Regular herding of livestock will be used to improve livestock distribution.

E. Range Improvement Construction Priority

The following prioritized improvements will be completed to implement the grazing strategy:

- A pipeline will be constructed from the El Paso Well to provide upland waters to the L&J, Harristeen, Upper Mowry, Lower Mowry, and Apache Pastures in 2005 and 2006.
- A pipeline will be constructed from the Shaffer Well to provide upland water in the Finley & Adams, South Mowry, Upper Mowry, Callihan and Duquesne Pastures in 2006.
- A pipeline will be constructed from the Willow Canyon Well on the San Rafael Allotment to provide water to the Apache Pasture in 2006.
- The Santo Nino Pasture will be divided to improve livestock use of the upper elevations of the pasture in 2007.
- New storage tanks will be added to the Sweetwater and Marlboro wells.
- Some dirt stock tanks will be fenced to control cattle access in order to meet utilization goals on surrounding forage.
- Young junipers that are invading loamy bottoms may hand-grubbed.

Unless the permittee obtains a grant or other funding source, the Forest Service will supply the materials for the above projects and the permittee will provide the labor for installation. Once the pipelines from the El Paso and Shaffer Wells are complete, the single herd rotation can begin.

F. Range Improvement Maintenance

Maintenance of all structural improvements listed in the term grazing permit is the responsibility of the permittee. Likewise, the maintenance of any new improvements as a result of this plan will be the responsibility of the permittee. All improvements must be kept in a serviceable condition. The forest service will assist in supplying materials if budgets allow.

G. Fires

One of the goals of that evolved from the San Rafael Valley ecosystem management planning effort was to re-establish the role of fire on the landscape. Naturally ignited wildfires will be aggressively fought when they endanger life or property. Fires on other portions of the allotment will be fought with a containment strategy, being allowed to burn to the nearest roads or natural barriers. When planning prescribed fires, the permittee will be consulted, so that he will have time to make adequate preparations for his livestock operation, and so the rotation can be altered to allow fine fuels to accumulate. Burned areas will be allowed to rest for 1-2 growing seasons to ensure adequate recovery before livestock will be allowed access. Large portions of the Duquesne Allotment are candidates for mechanical treatments to reduce fuel loading and improve watershed conditions.

H. Monitoring

Key grazing areas have been identified in most pastures, and will be monitored for utilization levels and long-term trend. The permittee is encouraged to participate in the monitoring practices. Close records of livestock numbers, movements dates, shipping records, and rainfall dates and amounts will be kept by the permittee and will be provided to the USFS annually. Long term trend monitoring will include, but are not limited to: measurements to track upland range condition and watershed condition (hydrologic function), as well as the use of permanent photo points. Techniques may include, but are not limited to: dry weight rank, comparative yield, pace transects, parker 3-step, repeat photography, grazed plant count, and clipping and weighing.

Additionally, species-specific monitoring requirements are in place for Mearns quail as described in the Grazing Strategy portion of this document.

Duquesne Allotment Single Herd Rotation

YEAR 1

Pasture	Months	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Santo Nino	3.0												
Duquesne	2.0												
Callihan	2.0												
U/L Mowry	2.0												
Apache	2.0												
Sepprell/S Mowry	1.5												
L&J/ Harristeen	2.0												
Finley & Adams	1.0												

YEAR 2

JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN

YEAR 3

Pasture	Months	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Santo Nino	3.0												
Duquesne	2.0												
Callihan	2.0												
U/L Mowry	2.0												
Apache	2.0												
Sepprell/S Mowry	1.5												
L&J/ Harristeen	2.0												
Finley & Adams	1.0												

YEAR 4

JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN

Rotation Begins Again

Warm season rotation: Sepprell, U/L Mowry, Apache, L&J
Finley & Adams as swing pasture & reserve
Callihan for fall shipping & swing pasture
Winter use in Duquesne & Santo Nino; alternate spring use for cool season species; encourage riparian developmnet
Upland waters will need to be functioning prior to implementing rotation