United States Department of Agriculture | **Forest Service** | **Mormon Lake Ranger District**
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File Code: 2230

Date: June 17, 2004

Flying M Ranch
c/o Jack, Kit and Mandy Metzger
P O Box 700
Flagstaff, AZ 86002

Dear Jack, Kit and Mandy:

This is an update to your 2004 Annual Operating Instructions (AOI) for the Anderson Springs Allotment. These Annual Instructions are a part of your term grazing permit as indicated in Part Two. In addition, this letter is to document actions that need to be taken this year to keep the Forest Service and this allotment in compliance with previous commitments from environmental assessments, allotment management plans and guidelines and recommendations for rare wildlife and plant species, including those that are threatened or endangered.

Allotment Area Description

The Anderson Springs Allotment consists of 44,586 acres southeast of Flagstaff, Arizona, and lies within Mormon Lake Ranger District of the Coconino National Forest, see Map 1. The allotment lies east of Mormon Lake and Forest Service Highway 3 and runs east to the forest boundary. . The grazing system is a multiple pasture deferred rest rotation system.

The western and southwestern portion of the allotment is a ponderosa pine community at an elevation of approximately 7200'. The northwestern and central portions of the allotment are transition grassland with sparse ponderosa pine and pinyon-juniper throughout. Going east, the allotment has pinyon-juniper, which extends down Anderson Mesa to the forest boundary. Riparian and wetland areas are both man made lakes, such as Kinnikinick Lake, and Morton Lake, as well as seasonal wetlands, and closed basins such as Boot Lake, Yeager Lake, Pine Lake, Mud lake, Antelope Lake, Dry Lake, and Corner Lake. These lakes have riparian values, however, in periods of extended drought the water and riparian vegetation dry up. Kinnikinick Spring is the only spring on this forest allotment and has some riparian vegetation.

The Allotment is grazed in conjunction with the Ashurst Run Cell, which for the most part is located upon private lands. The operation of this permit consists of two and possibly three herds of cattle, which are managed and operated separately. This cell has 20 different paddocks, which are managed intensively. The herd using the Ashurst run cell utilizes some of the forest pastures each year, and is the small group of cattle on the forest permit season long

The allotment contains the following Land Management Plan Management Areas:

MA 3-Ponderosa Pine and Mixed Conifer
MA 4-Ponderosa Pine on greater than 40% slope
MA 6-Unsuitable Timber Land

MA 7-Pinyon Juniper on less than 40% slope
MA 8-Pinyon Juniper on greater than 40% slope
MA 9-Mountain Grassland
MA 10-Transition Grassland
MA 12-Riparian

The Anderson Springs Allotment occurs in two 5th code watersheds. The following table is a summary of number of total acres within each 5th code watershed and acres of the allotment, which occur within each watershed on the Coconino National Forest.

5th Code Watershed (Acres)	Allotment (Acres)	% of Allotment within Watershed
Canyon Diablo (223,885)	43,700	20
Mormon Lake (25,385)	900	4

The Anderson Springs Allotment is a portion of the land involved with the Diablo Trust. It is the intention of the permittee to secure a 401 certification from the Arizona Department of Environmental Quality. It is desired to have involvement from the Diablo Trust to develop the Best Management practices, and apply for this certification.

Your term grazing permit information along with your 2003 grazing schedule is listed below:

Permittee Name	**Permit Type**	**Season**	**Permitted No.**
Flying M Ranch	Term	6/1-10/31	1200 cows/calves&bulls
	Private Land	6/1-10/31	250 cows/calves&bulls
			Total 1450

Schedule

Main herd

Pasture Name	**Use Dates**	**Total Number**
North Burro	5/16-5/19	175
South Boot	5/18-5/30	465
North Kinnikinick	5/30-6/7	465
Yeager South (#2)	6/8-6/30	465
Kinnikinick #2S	7/1-7/14	465
Kinnikinick #1W	7/15-8/5	465
Tinny	8/5-9/15	465
Mud Lake #1W	9/16-10/5	465
Mud Lake #2E	10/6-10/25	465

Second herd

Pasture Name	Use Dates	Total Number
Boot North	6/3-6/20	144
NE Pine Hill (#1N)	6/21-7/10	144
Private	7/11-7/15	144
SE Pine Hill (#2S)	7/16-8/15	144
Wallace	8/16-9/1	144
Middle	9/2-9/27	144
Perry	9/28-10/25	144

South Burro 1	Held in Reserve
South Burro 5	Held in Reserve
South Burro 7	Held in Reserve
South Burro 9	Held in Reserve
Grapevine	Held in Reserve

NE Pine Hill	Yearlong Rest
Yeager North	Yearlong Rest

The pasture move dates shown above are an estimate, and may need to be changed on the basis of actual range conditions. Due to the current drought conditions it is vital to closely monitor actual conditions closely, and notify the Forest Service promptly if it appears that livestock will need to be moved sooner or later than estimated above. Grazing dates will be adjusted for this year's soil and vegetation readiness. Field checks in key forage areas such as meadows and riparian areas will be made prior to scheduled entry dates. Dates may be adjusted only with prior approval of the Forest Officer.

To facilitate livestock moves, gates may be opened two days prior to the scheduled move date only when moving into an adjacent pasture. Gates must be closed and the grazed pasture entirely cleaned of livestock no later than five days following the scheduled move date. Grazed pastures must be kept clean of livestock following the pasture move.

Salt or mineral supplement locations should be rotated annually and avoid areas where cattle concentrations could cause excessive vegetation trampling, soil loss or disturbance to sensitive species or habitats. These areas would include Mexican spotted owl home ranges, northern goshawk home ranges, rare plants, riparian vegetation, meadows or locations closer than 1/4 mile from a water source. The enclosed map shows the general location of these areas that are not obvious on the ground. This map does not include all obvious sensitive areas like all meadows, riparian areas or water sources.

No prairie dog control (i.e., poisoning or shooting) is allowed in association with this permit.

Monitoring will be conducted in partnership with the permittee on a regular basis during the grazing season and will be used to develop next year's Annual Operating Instructions that state when livestock are to be moved and how grazing patterns are to be changed during the grazing season. It is important for you to help us with monitoring of your grazing permit. With present and future downsizing in the Forest range program your assistance in monitoring will become increasingly more important. This monitoring generally includes compliance with your Annual Operating Instructions, livestock utilization and overall range condition and trends.

Utilization monitoring will be conducted throughout the year in every livestock grazed pasture following the protocol set up in the attached worksheet. In addition, key site and key species monitoring, to further conform to the Coconino Forest Plan, will be conducted at the following sites on the allotment:

Management Area	**Pasture**	**Location**	**Key Species**
ponderosa pine/oak	East Mud Lake	Southwest of Pine Hill	Blue grama, three awn carex

Due to the intensive grazing management system in place, the allowable level of utilization on herbaceous and woody vegetation is 50% for this allotment. Livestock utilization of woody vegetation in riparian areas may not exceed 20%. This will ensure proper protection and management of resources on this allotment.

Adjustments in numbers, rotation schedule or season of use will be made if allowable use standards are exceeded. To achieve the desired allowable use, it is important to have proper livestock distribution.

Range improvements on your allotment need to be maintained to proper Forest Service standards. A complete list of these improvements is listed in your grazing permit. No new improvements are scheduled for this year. However, if new improvements are needed during the year, before any of these improvements can be implemented, archeological and biological clearances will be completed.

Cattle exclosures on this allotment include the Northern Arizona University plots. All fences must be maintained to ensure cattle stay out of these areas. This maintenance may be done with help from the Forest Service, other agencies or groups. There are several new elk exclosures associated with the seasonal wetlands that will be maintained by the Forest Service. You must monitor these areas to ensure cattle do not enter them. If cattle enter these sites immediate action must be taken to remove them and notify the Forest Service if the elk exclosures need repair.

AOI's are appealable and subject to review under 36 CFR 251.

If you have any questions please call Matt Atencio, Katherine Sanchez or Mike Hannemann at 526-0866.

Sincerely,

/s/ Terri Marceron 4/12/2004
TERRI MARCERON Date
District Ranger

I have reviewed and agree with these operation instructions

/s/ Kit Metzger 4/12/2004
Kit or Mandy Metzger Date

Planned Monitoring

Monitoring on this allotment over this year and up to the next 10 years will include: compliance, allotment inspections, range readiness, forage production, rangeland utilization, condition and trend, soil and riparian condition, and threatened and endangered species habitat.

Compliance: Throughout each grazing season compliance monitoring will be done by Forest Service personnel to determine accomplishment of the terms and conditions of this permit, Allotment Management Plan, and Annual Operating Instructions.

Allotment Inspections: Allotment inspections are a written summary done each fall by Forest Service personnel to document compliance monitoring and 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 monitoring summary.

Range Readiness: Each spring before cattle move above on the allotment range readiness will be assessed by Forest Service personnel to determine if vegetative conditions are ready for cattle grazing. The range is generally ready for grazing when cool season grasses are leafed out, forbs are in bloom, and brush and aspen are leafed out. These characteristics indicate the growing season has progressed far enough to replenish root reserves so that grazing will not seriously impact these forage plants.

Forage Production: Forage production surveys for the allotment will be done every nine to 13 years. Methods used for these surveys will be done by the best available methods at that time. These values will be used as tools to manage this allotment, but will not be the sole measure to set carrying capacity.

Rangeland Utilization: Utilization monitoring is a estimate of the available forage by weight consumed or trampled through grazing and is expressed as a percent of the current years biomass removed. Utilization monitoring is designed to assess key forage utilization levels by cattle and elk during the year and from year to year.

Key forage species for this allotment include western wheatgrass, blue grama, squirrel tail, and Arizona fescue. Utilization monitoring will be conducted by the permittee and checked by Forest Service personnel throughout the year in every grazed pasture. This monitoring will calculate an overall utilization value for a pasture 1) before cattle go into a pasture, 2) within five days after cattle leave a pasture, and 3) at the end of the growing season in the fall. Utilization will be averaged into the following five categories: no-use (0-10%), light (11-20%), moderate (21-50%), high (51-70%) and extreme (71%+). The goal for utilization will be 35% or less by cattle throughout the year with this intensive livestock grazing system.

In addition, key site and key species monitoring will be conducted in each of following habitat types: pine (oak), riparian, mountain meadow, and aspen, if these habitat types are

grazed by cattle. Utilization monitoring will also occur in selected pastures rested from cattle grazing by Forest Service personnel.

Condition and Trend: Watershed and vegetative condition and trend monitoring will help determine the effectiveness of the Allotment Management Plan and long-term range and watershed trend. In the past we have used Parker 3-step and paced transects to determine condition and trend. We now have better monitoring techniques: canopy cover and frequency ground cover plots.

Parker 3-step and paced transect monitoring points were established throughout this allotment in the 1950-60's. These transects are one of best historic records of range condition and trend. The photo points and vegetative ground cover data show how the site has changed over time. The new plots will be placed with the Parker 3-step transects in most locations to add to this historic data. The original photo points will be retaken.

Ocular plant canopy cover 0.10 acre plots will be used to compare existing conditions with potential and desired vegetative community conditions. Over time, these plots will show how canopy cover changes. Canopy cover will provide an indication of how plants are growing, assuming that if they are getting bigger and occupying more space, then they are doing well and that can be a relative gauge of vigor.

Frequency and ground cover data will be collected using the widely accepted plant frequency method (University of Arizona, Extension Report 9043, 1997). These plots will monitor trends in plant species abundance, plant species distribution and ground cover. All this information will be statistically valid. This will provide information on plant composition and additional information on regeneration.

These transects will be read at least every 10 years by Forest Service personnel. These plots will be used to help determine the effectiveness of the allotment management.

Precipitation: Precipitation is currently recorded within or near this allotment at Flagstaff National Weather Service Office at Bellemont, Flagstaff Airport, Sedona Airport and all the active fire lookout towers on the Forest. We suggest that additional rain gauges be established at your headquarters or other convenient location for a more accurate record of your local precipitation. This data could be recorded throughout the year and summarized in the annual inspection.

Soil and Riparian Condition: The Intergovernmental Agreement between the Forest Service and the State of Arizona that controls water quality and the Clean Water Act requires implementation and effectiveness monitoring. The objectives of monitoring are to: 1) collect data sufficient to assist line officers and resource managers in evaluating effects of management activities on soil and water resources; 2) support changes in management activities to protect soil and water quality. Monitoring will help determine how successfully managers are implementing Guidance Practices and how effectively those practices are protecting soil and water quality. Arizona Department of Water Quality (ADEQ) will continue to monitor water quality in the area.

Evaluating watershed condition can be assessed using information from the monitoring schemes above. Monitoring of plant abundance, ground cover, species diversity and estimates of overall soil condition (using the methods throughout this monitoring section) will indicate whether or not management practices are effectively meeting management goals. Trends toward improvements in species abundance and diversity should indicate that management practices are effectively improving soil condition and by inference, maintaining or improving downstream water quality and complying with water quality standards. Conversely, decreases in plant abundance and species diversity may indicate that management practices are not effective and need to be changed. Environmental factors, especially precipitation, will be considered when evaluating monitoring results.

Improving trends for riparian vegetation and stream channel conditions (if applicable on this allotment) should indicate that management practices are effectively benefiting water quality. Conversely, decreases in riparian vegetation or channel condition indicate that management practices are not effective and need to be changed. Environmental factors, especially flooding, will be considered when interpreting monitoring results. Several Fixed Station, Biocriteria Program, and other water quality monitoring sites maybe located within or near the allotment. These sites have and are being used to track long-term conditions and trends at critical points in a watershed and to develop biological criteria for stream segments. Information from these sites will be considered in evaluating the effectiveness of management practices, but may be of limited value considering the multitude of influences affecting each monitoring site.

Rationale: This monitoring program gives this alternative the best data possible to monitor the effectiveness of your Allotment Management Plan while staying within the projected Forest Service budget.