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

Date: April 15, 2004

Red Hill Corporation
c/o Dave Hartman, Manager
P O Box 123
Kykotsmovi, AZ 86039

Dear Dave:

These are your 2004 Annual Operating Instructions (AOI) for the Pickett Lake and Padre Canyon Allotments. 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 these allotments 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.

Pickett Lake Allotment Area Description

The Pickett Lake Allotment consists of 34,537 acres southeast of Flagstaff, Arizona. These acres lie within Mormon Lake Ranger District of the Coconino National Forest. The allotment runs from the upper end of Upper Lake Mary and Mormon Lake across Forest Highway 3 east to the forest boundary. The grazing system is an eight pasture deferred rest rotation system.

The western portion of the allotment is a ponderosa pine community at an elevation of approximately 7100'. The central portion of the allotment is transition grassland with sparse ponderosa pine and pinyon-juniper throughout. Going east, the allotment has pinyon-juniper, which extends from Anderson Mesa to the forest boundary. Riparian and wetland areas are both man made lakes, such as Ashurst Lake, and Coconino Dam, as well as various types of seasonal, permanent, and semi-permanent wetlands such as Boot Lake, Pickett, Post, Als, Potato, Deep, Breezy, Indian, Long, McDermit, Ducknest, and Perry Lake. These lakes have riparian values, however, in periods of extended drought the water and riparian vegetation may dry up.

Springs on the allotments include: Ashurst, Mormon Canyon, Boot, and Elliot. Ashurst Spring is fenced from cattle and elk. Mormon Canyon Spring is dry and does not have any riparian vegetation. Boot Spring, Billy Back and Elliot Spring have sedges, rushes and other riparian vegetation. Steep and rocky terrain excludes cattle grazing from Elliot Spring; however, livestock have grazed Boot and Billy Back Spring.

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%

MA 6-Unsuitable Timber Land
MA 7-Pinyon Juniper on less than 40% slopes
MA 8-Pinyon Juniper on greater than 40% slopes
MA 9-Mountain Grassland
MA 10-Transition Grassland
MA 12-Riparian

The Pickett Lake Allotment occurs in three 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.

5^{th} Code Watershed (Acres)	Allotment (Acres)	% of Allotment Within Watershed
Canyon Diablo (223,885)	22,400	10
Mormon Lake (25,385)	1,700	7
Lake Mary (97,203)	10,400	11

The following is a list of Best Management Practices (BMP's) developed for these Annual Operating Instructions.

- One of the main goals for livestock grazing practices on this allotment is to maintain or improve the quality of water.

- The location, timing, and intensity of livestock grazing activities should be controlled with objectives of achieving soil cover to prevent accelerated erosion and to protect water quality.

- Structural range improvements, such as fences, water developments, trails and corrals, should be planned, constructed and utilized in a manner to enhance or maintain water quality.

- Land treatments to manage vegetation or practices to reduce erosion should be planned, implemented and maintained to minimize adverse impacts on water quality.

- Livestock management activities, such as parasite control, feeding and salting, should be done in a manner to protect water quality.

- Monitor and enforce permittee compliance with terms and conditions of the grazing permit.

- Manage livestock grazing within (TES unit 55) meadows and riparian areas at an intensity that will improve vegetation ground cover (primarily the litter component) and improve species diversity of perennial grasses.

Padre Allotment Area Description

The Padre Canyon Allotment consists of 34,537 acres southeast of Flagstaff, Arizona. These acres lie within the northeast corner of the Mormon Lake Ranger District of the Coconino National Forest. The allotment lies below the rim of Anderson Mesa within the pinyon-juniper/transition grassland belt. The grazing system is a deferred rest rotation system.

The southern portion of the allotment descends the rim to an elevation of approximately 7100' and is dominated by pinyon-juniper and chaparral. The remainder of the allotment is denominated by pinyon-juniper/transition bluegrass grassland. Padre Canyon, an ephemeral drainage, runs through the allotment and effectively breaks the area into grazing units.

Springs on the allotments include: Billy Black and Yellow Jacket Spring. Yellow Jacket Spring is dry and does not have any riparian vegetation. Billy Black has sedges, rushes and other riparian vegetation. Livestock can graze Billy Black Spring.

The allotment contains the following Land Management Plan Management Areas:

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

The Padre Canyon Allotment occurs in one 5th code watershed. 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.

5^{th} Code Watershed (Acres)	Allotment (Acres)	% of Allotment Within Watershed
Canyon Diablo (223,885)	34,537	15

The following is a list of Best Management Practices (BMP's) developed for these Annual Operating Instructions.

- One of the main goals for livestock grazing practices on this allotment is to maintain or improve the quality of water.

- The location, timing, and intensity of livestock grazing activities should be controlled with objectives of achieving soil cover to prevent accelerated erosion and to protect water quality.

- Structural range improvements, such as fences, water developments, trails and corrals, should be planned, constructed and utilized in a manner to enhance or maintain water quality.

- Land treatments to manage vegetation or practices to reduce erosion should be planned, implemented and maintained to minimize adverse impacts on water quality.

- Livestock management activities, such as parasite control, feeding and salting, should be done in a manner to protect water quality.

- Monitor and enforce permittee compliance with terms and conditions of the grazing permit.

Mud-Tinny Allotment Area Description

The Mud-Tinny Allotment consists of 75,885 acres southeast of Flagstaff, Arizona. These acres lie within Mormon Lake Ranger District of the Coconino National Forest. The allotment lies from Mormon Lake in the east, south to the Mormon Lake District boundary, west to Bert Lee Park, and north to Howard Draw. The grazing system is a nine pasture deferred rest rotation system.

The majority of the allotment is a ponderosa pine community at an elevation of approximately 7000'. Within the ponderosa pine community lays scattered pockets of mountain meadows, aspen, and riparian community types. Mormon Lake is the only natural wetland within the allotment. Springs on the allotment are: Hoxworth, Wallace, Tinny, Mud, Mayflower, Sedge, Iowa Camp, Van Deren, Thomas, Tree, Mint, and Navajo all of which has some riparian vegetation. Hoxworth Spring was excluded from cattle grazing in the spring of 2000.

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%
MA 5-Aspen
MA 6-Unsuitable Timber Land
MA 9-Mountain Grassland
MA 12-Riparian

The Mud/Tinny Allotment occurs in five 5th code watersheds on the Coconino National Forest. 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.

5^{th} Code Watershed (Acres)	Allotment (Acres)	% of Allotment Within Watershed
Dry Beaver Creek (127,043)	19,000	15
Oak Creek Canyon (298,114)	7,600	3
Lake Mary (97,203)	19,000	20
Canyon Diablo (223,885)	7,600	3
Mormon Lake (25,385)	22,800	90

The following is a list of Best Management Practices (BMP's) developed for these annual operating instructions.

- One of the main goals for livestock grazing practices on this allotment is to maintain or improve the quality of water.

- The location, timing, and intensity of livestock grazing activities should be controlled with objectives of achieving soil cover to prevent accelerated erosion and to protect water quality.

- Structural range improvements, such as fences, water developments, trails and corrals, should be planned, constructed and utilized in a manner to enhance or maintain water quality.

- Land treatments to manage vegetation or practices to reduce erosion should be planned, implemented and maintained to minimize adverse impacts on water quality.

- Livestock management activities, such as parasite control, feeding and salting, should be done in a manner to protect water quality.

- Monitor and enforce permittee compliance with terms and conditions of the grazing permit.

- Manage livestock grazing within (TES unit 55) meadows and riparian areas at an intensity that will improve vegetation ground cover (primarily the litter component) and improve species diversity of perennial grasses.
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Your term and temporary grazing permit information along with your 2004 grazing schedule is listed below:

Permittee Name	**Permit Type**	**Season**	**Permitted No.**
NA Properties, Inc.	Pickett, Term	6/1-10/31	758 cows/calves
	Padre, Term	6/1-10/31	87 cows/calves
	Mud-Tinny, Temp	6/1-	

Pickett Lake

Pasture Name		**Use Dates**	**Total Number**
S. Howard		6/1-8/1	550
Railroad		8/2-9/15	550
Holding/Corral		9/16-10/1	550
Breezy		10/2-10/27	510
Elliot Driveway		10/28-10/29	510
Morgan		10/30-10/31	510
Boot	yearlong rest		
Woodland	yearlong rest		
Ducknest	yearlong rest		
Ashurst	yearlong rest		

Padre Canyon

Pasture Name		**Use Dates**	**Total Number**
Padre	yearlong rest		
Elliot	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 current drought conditions it is vital to 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 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 habitats that support Mexican spotted owls, northern goshawks, 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 this year 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, 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	Railroad	Southwest portion of pasture	Squirreltail, June grass Blue grass, Carex

The allowable level of total utilization on herbaceous and woody vegetation is 35% maximum and 35% average use in ponderosa pine (including pine/oak), aspen and mixed conifer. Livestock utilization of woody vegetation in riparian areas may not exceed 20%. This will ensure proper protection and management of resources on these allotments.

Adjustments in numbers, rotation schedule or season of use will be made if allowable use standards are exceeded. The option to return livestock to a pasture that has received adequate

plant regrowth will be considered if all resource objections can be met. To achieve the desired allowable use, it is important to have proper livestock distribution.

No new range improvements are scheduled for this year on these allotments.

Refer to the attached map for the areas that are excluded from cattle grazing during the grazing season. All fences must be maintained to ensure cattle stay out of these areas. 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.

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

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

Sincerely,

/s/ Terri Marceron 4/15/2004
TERRI MARCERON Date
District Ranger

I have reviewed and agree with these Annual Operating Instructions.

/s/ Dave Hartman
Dave Hartman

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, Forest Service personnel will assess range readiness prior livestock coming on the allotment to determine if vegetative conditions are ready for livestock 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 so 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 year’s biomass removed. Utilization monitoring is designed to assess key forage utilization levels by livestock and elk during the year and from year to year.

Key forage species for this allotment include western wheatgrass, blue grama, squirreltail, Mountain muhly, and Arizona fescue. Utilization monitoring will be conducted by the permittee and spot 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 livestock go into a pasture, 2) within five days after livestock leave a pasture, and 3) at the end of the growing season in the fall. The goal for utilization will be 35% or less by livestock throughout the year with this 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 present on the allotment and are grazed by livestock. Utilization monitoring will also occur in selected pastures rested from livestock 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 such as 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 current 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.

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.