



United States  
Department of  
Agriculture

Forest  
Service

Peaks  
Ranger District

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File Code: 2230

Date: May 9, 2007

Morrison Brothers Windmill Ranch LLC  
c/o Richard Morrison  
11611 S. Higley RD  
Higley, AZ 85236

Dear Richard:

This is your 2007 Summer Annual Operating Instructions (AOI) for the Windmill 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 Windmill Allotment consists of 256,237 acres. These acres lie within three Ranger Districts of the Coconino National Forest and include some Arizona State Trust Lands. This Allotment has the following plant community types: ponderosa pine (103,256 acres), pinyon pine-juniper (27,941 acres), mountain meadows (3,745 acres), transitional type between ponderosa pine and pinyon-juniper (7,281 acres), chaparral (6,498 acres), desert grassland (87,526 acres), desert shrub (11,635 acres) and riparian (910 acres).

#### Mormon Lake Ranger District - Munds Pocket/Foxboro Division of the Summer Range

The Mormon Lake Ranger District portion of the Windmill Allotment consists of 52,302 acres. This area is called the Munds Pocket/Foxboro Division and is grazed in summer. The division extends north to south from James Canyon to the Coconino County line. The northern portion is referred to as Munds Pocket and the southern portion as Foxboro. The division extends east to west from the rim of Oak Creek Canyon to Fain Mountain, Casner Park and Pinewood and has two distinct cattle management areas. The Foxboro cattle herds consist of purebred Hereford cows, calves and bulls. The Munds Pocket cattle herd consists of replacement heifers and bulls.

#### Peaks Ranger District - Mill Park Division of the Summer Range

The Peaks Ranger District portion of the Windmill Allotment consists of 66,648 acres. This area is called the Mill Park Division and is also grazed in summer. The division extends north to south from the southern portions of Rogers Lake into the Sycamore Canyon and Red Rock-Secret Mountain Wilderness Areas. The western boundary is near Mooney Mountain and the

eastern boundary follows Highway 89 south to the rim of Oak Creek Canyon. The northern portions of this division contain 9,467 acres of Arizona State trust lands. These lands are interspersed with Coconino National Forest lands in a checkerboard configuration. The Mill Park cattle consist of crossbred cows, calves and bulls. This group of cattle is also known as the commercial herd.

Sedona Ranger District - Winter Division

The Sedona Ranger District portion of the Windmill Allotment consists of 129,842 acres. This area is called the Winter Division and is grazed during the winter season. The division extends north to south from the Peaks Ranger District boundary to the Beaver Creek Ranger District boundary. The area's eastern boundary meets Secret Mountain, Lost Mountain, Bear Mountain, the Boynton Canyon Range Allotment, the Sedona Range Allotment, the western portion of Munds Mountain, the western rim of Horse Mesa and Jacks Point. The western boundary meets Sycamore Canyon and the Verde River. The southwestern portions of the Winter Division contain 8,023 acres of Arizona state trust lands. These lands lie approximately four miles northeast of Cottonwood, Arizona and are bisected by Highway 89A. The Foxboro herds graze the southern portion of this division from Jacks Canyon to House Mountain. The Munds Pocket herd grazes the central portion of this division in the D.K-Malpais-Strip pasture area. The Mill Park herd grazes the southwestern portion of this division in Cornville-Sheepshead pasture area.

The allotment contains the following Land Management Plan Management Areas:

- MA 1-Wilderness
- MA 2-Verde Wild and Scenic River
- MA 3-Ponderosa Pine and Mixed Conifer
- MA 4-Ponderosa Pine on greater than 40%
- MA 5-Aspen
- 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 11-Verde Valley
- MA 12-Riparian
- MA 14-Oak Creek Canyon

The Windmill Allotment occurs in four 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 <sup>th</sup> Code Watershed (Acres)	Allotment (Acres)	% Of Allotment Within Watershed
Sycamore Canyon (103,894)	27,948	26
Oak Creek Canyon (298,114)	158,360	53
Dry Beaver Creek (127,043)	34,606	27

Camp Verde (42,105)	27,935	51
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The following is a list of Best Management Practices (BMP's) developed for the 1998 Environmental Impact Statement.

PLANNED GRAZING SYSTEMS - Grazing systems are alternately rested and grazed in a planned sequence. See each alternative for specifics on how this practice is adopted.

PROPER GRAZING USE - Grazing at an intensity that will maintain enough cover to protect the soils and maintain or improve the quantity and quality of desired vegetation. See each alternative for specifics on how this practice is adopted.

STREAM BANK PROTECTION - Stabilizing and protecting stream banks against scour and erosion through vegetative and structural rehabilitation means. Livestock grazing will not be allowed in Oak Creek, Sycamore Creek, Verde River, Spring Creek, and Sheepshead Spring. Above the rim, ungulate grazing will be restricted or eliminated at T-six spring, Fain Spring, and Willard Spring.

TROUGH OR TANK - To provide watering facilities for animals at selected locations. See Table 1 for new tank construction, pipeline construction, and water lot development. These improvements are intended to increase distribution of livestock and wildlife.

FENCING - Fencing is intended to improve livestock and wildlife management, control access, to prevent soil loss, and to improve water quality. See table 1 for a list of fencing improvements.

Site-specific practices for the Windmill Allotment include the following:

In all the dry meadows, progress towards improved soil conditions by one of more of the following: reducing graze periods, relocating or removing stock tanks, building waterlot fences around tanks, splitting pastures and obliterating or re-routing roads in meadows.

Reduce graze periods to less than or equal to 20 days during fast plant growth as much as possible. Fast forage growth is usually mid-July thru August and mid-March to mid-May with flexibility for when rains arrive. This will reduce regrazing of forage regrowth, which is better for plant health and vigor.

Incorporate yearlong rest from cattle into every pasture wherever possible in the summer range rotations. This yearlong rest from cattle improves overall forage health by allowing more plants to reach maturity and reproduce.

Increase variability of pasture deferment, i.e. different season of use each year of the rotation.

The summer cattle range is not used before the cool season species have finished their fast forage growth (June 1st or later) to allow these plants to reach maturity.

In riparian areas below the Mogollon Rim reduce time of cattle grazing or exclude from cattle grazing. Riparian areas identified are, portion of Oak Creek, Dry Creek, Sheepshead Creek and Jacks Canyon.

Riparian grazed by cattle above the Rim will receive reduced graze periods by cattle and varied season of use. Several of these areas will be fenced and excluded from cattle grazing. Riparian areas identified are: T-6 Spring, Willard Spring, Fain Spring and a portion of Rogers Lake.

Sweep cattle out of riparian areas above and below the Mooney Trail after moving them along the trail between summer and winter ranges.

Move cattle between pastures and summer and winter ranges according to each area's readiness for grazing.

Ensure that the permittee complies with the terms and conditions of the allotment permit.

Planned Grazing Information 2007

Your term grazing permit information along with your 2007 summer grazing schedule is listed below:

**Mill Park Herd**

<u>Permittee Name</u>	<u>Permit Type</u>	<u>Season</u>	<u>Permitted No.</u>
Morrison Ranch	Term	Yearlong	515 cows/calves & bulls
	State Land	Yearlong	160 cows/calves & bulls
		Total	675

<u>Pasture Name</u>	<u>Use Dates</u>	<u>Total Number</u>
Buck Ridge	6/1-6/6	590 + 32 bulls
Lockwood	6/7-6/22	590 + 32 bulls
Fry South	6/23-6/30	590 + 32 bulls
Harding Point	7/1-7/22	590 + 32 bulls
Fry Park	7/23-8/17	590 + 32 bulls
Mill Park	8/18-9/13	535
Rodgers Lake	9/14-10/9	535
Metz Holding	10/10-10/15	535
East Barney	yearlong rest	
West Barney	yearlong rest	

**Foxboro Herd**

<u>Permittee Name</u>	<u>Permit Type</u>	<u>Season</u>	<u>Permitted No.</u>
Morrison Ranch	Term	Yearlong	250 cows/calves

<u>Pasture Name</u>	<u>Use Dates</u>	<u>Total Number</u>
Jacks Point	5/21-5/26	250 + 28 bulls

Schnebly Hill	5/27-6/10	250 + 28 bulls
Arts Tank	6/11-6/25	250 + 28 bulls
Highway Camp	6/26-7/13	250 + 28 bulls
T-6/Little T-6	7/14-8/14	250 + 28 bulls
Luke Mountain	8/15-10/1	250 + 28 bulls
Rocky Park Holding	10/2-10/7	250 + 28 bulls
S. Geronimo	yearlong rest	

**Munds-Pocket Herd**

<u>Permittee Name</u>	<u>Permit Type</u>	<u>Season</u>	<u>Permitted No.</u>
Morrison Ranch	Term	Yearlong	250 cows/calves & bulls

<u>Pasture Name</u>	<u>Use Dates</u>	<u>Total Number</u>
Mud Lake	5/24-6/30	132 yearlings
Crazy Park	7/1-8/8	132
Ritter	8/9-9/3	132
Blowout	9/4-9/25	132
Willard Springs Sh.	9/26-10/1	132
N. Geronimo	yearlong rest	

The pasture move dates shown above are an estimate, and may need to be changed on the basis of actual range conditions. Please 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 years Annual Operating Instructions that states 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.

The allowable level of utilization on herbaceous and woody vegetation is 50% on this allotment because of the intensive grazing management system in place. 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. 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.

Refer to the attached map for the areas that are excluded from cattle grazing during this 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 Mike Hannemann, at 526-0866 at the Peaks District Office.

Sincerely,

/s/ Gene Waldrip  
Gene Waldrip  
District Ranger

I have read and agree to these operating instructions.

/s/ Mike Hughs  
Mike Hughs for Richard Morrison

## ***Planned Monitoring***

Monitoring would occur under all action alternatives during the permit term and includes the following activities: permit compliance, allotment inspections, range readiness, forage production, rangeland utilization, condition and trend, soil condition, noxious weeds, and threatened and endangered species. Condition and trend, and wildlife utilization would continue to be monitored, if funding is available. Monitoring frequency varies by each activity and may be accomplished by either the permittee and/or Forest Service personnel.

**Permit Compliance:** Throughout each grazing season Forest Service personnel would monitor to determine accomplishments of the permit terms and conditions, the AMP, and the AOI.

**Allotment Inspections:** Allotment inspections are a written summary completed 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 a monitoring summary.

**Range Readiness:** Each spring, Forest Service personnel and/or the grazing permittee would assess range readiness prior to cattle coming on the allotment 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:** Production surveys for this allotment would be done every 9 to 13 years. Methods used for these surveys would use the best available methods at that time. These values would be used as tools to manage this allotment, but will not be the sole measurement to establish carrying capacity.

**Rangeland Utilization:** Long term condition and trend monitoring is the primary standard for monitoring of this cattle grazing management system. Utilization is used as a tool to understand and achieve the goals of long term management. Utilization guidelines are intended to indicate a level of use or desired stocking rates to be achieved over a period of years.

The definition of utilization and seasonal utilization come from standard protocols established by the Society of Rangeland Management and the new guidelines established by Region 3 Regional Forester (PRD 92). The following definitions and procedures for utilization were taken and adapted to fit this project.

Utilization is the proportion or degree of current year's forage production that is consumed or destroyed by animals (including insects). It is a comparison of the amount of herbage left compared with the amount of herbage produced during the year. Utilization is measured at the end of the growing season when the total annual production can be accounted for and the effects of grazing in the whole management unit can be assessed. Utilization guidelines are intended to indicate a level of use or desired stocking rate to be achieved over a period of years.

Utilization measurements will be taken in key areas which reflect grazing effects within an entire pasture. One key area would be established in the pasture, at existing long-term monitoring sites if possible, to represent overall pasture utilization. Utilization guidelines are not intended as inflexible limits. Utilization measurements can indicate the need for management changes prior to this need being identified through long term monitoring. Utilization data would not be used alone, but would be used along with climate and condition/trend data, to set stocking levels and pasture rotations for future years.

Cattle would move when seasonal utilization in a pasture approaches a “moderate” level. Moderate seasonal utilization would be approximately 21-50 percent. Moderate seasonal utilization is an approximate value because it takes into account any additional growth which might occur later that year and considers season of use, wildlife use, weather conditions, availability of forage, and water in pastures. This moderate seasonal utilization level leaves residual cover for wildlife and soils and provides for long term health of the grazed plants.

If monitoring shows utilization rates exceed the utilization guideline in a given year, the grazing schedule and/or cattle numbers would be adjusted the following year so the utilization guidelines are not exceeded again. If utilization is exceeded after these adjustments are made, then the grazing management system would be changed to ensure this does not happen in the future.

**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 trends.

Parker Three-Step and paced transect monitoring points were established throughout this allotment in the 1950-60s. 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. Canopy cover and frequency plots were placed with the Parker Three-Step transects in to add to this historic data.

Ocular plant canopy cover 0.10-acre plots were 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, and then they are doing well and can be a relative gauge of vigor.

Frequency and ground cover data were 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. 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 help determine the effectiveness of current management.

**Precipitation:** Precipitation is currently recorded at the Flagstaff National Weather Service Office at Bellemont. Precipitation data may be recorded within or near the allotments for more

localized information. Precipitation data may be recorded throughout the year and summarized in the annual inspection. This data assists managers with forage utilization and production data collection.

**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 evaluate effects of management activities on soil and water resources; and (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. The current and proposed cattle grazing system incorporates Best Management Practices (BMP) and grazing practices (GP) and constitutes compliance with Arizona State and Federal Water Quality Standards. Arizona Department of Water Quality (ADEQ) will continue to monitor water quality in the area.

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 described 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.

**Noxious Weeds:** State-listed noxious weeds located in these allotments would be treated as necessary. The permittee and Forest Service would coordinate the weed inventory and treatment with responsibilities identified through the AOI. Noxious weed monitoring is carried out at the same time allotment inspections are conducted. As noxious weed populations are found they are mapped, monitored and in some areas, manually removed. Other treatment methods will follow guidelines established in the “Final Environmental Impact Statement for Integrated Treatment of Noxious or Invasive Weeds”.

**Threatened and Endangered Species:** Threatened and endangered species are monitored in compliance and consultation with the USFWS. Vegetation monitoring points (key areas) have been established on the allotment and will be monitored according to consultation requirements.

Key areas would normally be one-quarter to 1 mile from water, located on productive soils on level to intermediate slopes, and be readily accessible for grazing. Size of the key forage monitoring areas could be 20 to 500 acres. Within key forage monitoring areas, select appropriate key species to monitor average allowable use (USDA 1987a, p. 66-1).

A new key monitoring site will be established within the next two years, and will represent the allotment with annual monitoring data. The following information will be collected at this new location; utilization, canopy cover, frequency, ground cover, and production, along with photos.

This annual data will give us site specific information for long term condition and trend. The Forest Service would like the permittee to be involved in selecting the site and collecting the data.