

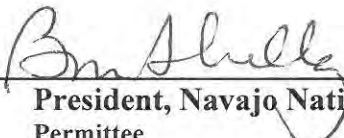
Peaks Allotment Management Plan (AMP)

Flagstaff Ranger District

Coconino National Forest

Prepared by: 
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Rangeland Management Specialist

Date 3/8/2011

Agreed to/
Reviewed by: 
President, Navajo Nation
Permittee

Date MAR 21 2011

Approved by: 
for Michael T. Elson
Flagstaff District Ranger

Date 3/30/2011

Decision Summary

The environmental analysis of grazing use on the Peaks Allotment was required by the Rescission Act of the Burns Amendment of 1995. The environmental analysis followed direction for rangeland management contained in FSM 2202.1 and 2203.1 and Chapter 90, Rangeland Management Decision Making of FSH2209.14 – Grazing Permit Administration Handbook. The environmental analysis was completed in compliance with the Endangered Species Act of 1973 (as Amended), the National Historic Preservation Act (NHPA) of 1966 and the Archeological Resource Protection Act of 1979.

The Decision Notice and Finding of No Significant Impact for the Peaks Allotment was signed by Michael T. Elson, District Ranger on August 19, 2010. Information specific to this Allotment Management Plan can be found in the Decision Notice and Finding of No Significant Impact and in the Project Record for the Environmental Assessment for the Peaks Allotment.

Annual Operating Instructions

Annual Operating Instructions (AOI) will be issued prior to the beginning of each grazing season and are part of the Term Grazing Permit as indicated in Part 2, Section 8, paragraph (a). Annual Operating Instructions will be developed cooperatively with the permittee and will include instructions and/or information related to the following: authorized livestock numbers; period of use; pasture grazing schedule; grazing strategy; utilization standards; grazing intensity standards; monitoring; mitigation measures; range improvements; salting/protein block practices; portable water hauling; and fire protection. As needed, other instructions may be included in the AOI. The AOI may be amended during the grazing period due to under/over grazing intensity, climatic changes, and other unexpected changes affecting the allotment. Making these plans each year and adjusting throughout the season as conditions change provides the needed flexibility for livestock operations in the Southwest.

Allotment Management

The Peaks Allotment is located north of Flagstaff and is roughly bounded by Highway 180 on the west, the Coconino National Forest boundary on the north, the Cinder Hills area/Sunset Crater National Monument on the east, and the City of Flagstaff on the south. The allotment contains approximately 157,500 acres. Approximately 153,000 acres within the allotment are National Forest System land with the remainder being either private or state land.

Permitted Livestock Grazing Area

The permitted livestock grazing area includes the following pastures: #13, #18, Badger, Headquarters, Holding, Kelly, Kendrick, Missouri Bill, and Saddle Mountain.

Portion of the Allotment Deferred from Livestock Grazing

The following pastures will continue to be deferred from livestock grazing due to the lack of infrastructure to manage livestock grazing (primarily fencing and water): Deadman's, Dove Tanks, Freidlein Prairie, Frisco Mountain, Gyler, Sandy Seep, and Schultz.

Prior to permitting livestock use within the deferred area, the necessary infrastructure to manage livestock grazing will need to be maintained and/or reconstructed and the appropriate environmental analysis will need to be completed.

Permitted Livestock

Permitted livestock numbers for the permitted grazing area will be a maximum of 1,900 AUMs, which is the equivalent of 375 head of adult cattle for approximately five months. Annual authorized livestock numbers would be based on existing conditions, available water and forage, and predicted forage production for the year. Adjustments to the annual authorized livestock numbers may occur during the grazing season; adjustments may be in the form of additional livestock or a reduction in livestock numbers. These adjustments will be based on current conditions verified by range inspections. If additional livestock are added during the grazing season, the maximum permitted Animal Unit Months (1,900) will not be exceeded.

Season of Use

The permitted season of use will be from May 15 to October 15. The season of use may be extended by allowing livestock to enter the allotment as early as May 1 and/or remain on the allotment until October 31. An extended season of use will only be authorized if it has been determined through range inspections that soil, water, and vegetation conditions are suitable. If the season of use is extended, the maximum permitted Animal Unit Months (1,900) will not be exceeded.

Management Strategy

Livestock grazing will occur through a rotational management system which will allow for plant growth and recovery. Early and mid-season grazing will typically occur in Kelly, Kendrick, and Saddle Mountain pastures and will be managed using a deferred rotation management strategy. Mid to late season grazing will typically occur in the Badger, Missouri Bill, and Headquarters pastures and will be managed using a rest-rotation management strategy. If the pasture fence identified in the Structural Improvements Section is constructed in the Headquarters pasture, the resulting North and South Headquarters pastures will be incorporated into the rest-rotation management strategy. Livestock use of the #13, #18, and Holding pastures will typically occur in the late fall and management of these pastures will be planned primarily based on time control and the permittee's operational needs (i.e. shipping).

Livestock will be moved from one pasture to another according to the grazing schedule included in the Annual Operating Instructions or when grazing intensity approaches the established guideline. Once all pastures scheduled for use during the grazing season have been grazed, livestock will be removed from the allotment.

Appendix 1 and Appendix 2 provide examples of a 5-year pasture rotation schedule that incorporates the management strategy described above. Appendix 1 depicts a 5-year pasture rotation schedule without the construction of the new fence in Headquarters pasture; Appendix 2 depicts a 5-year pasture rotation schedule with the construction of the new fence in Headquarters pasture. The pasture rotation schedules shown in Appendix 1 and Appendix 2 are provided as an example for comparison purposes only; actual pasture rotation schedules will be determined each year depending on climate and forage conditions, and will be included in each year's Annual Operating Instructions.

Utilization Guideline

Utilization is defined as the proportion or degree of current year's forage production by weight that is consumed or destroyed by animals. 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 area can be assessed.

A management guideline of conservative use (30-40% forage utilization as measured at the end of the growing season) will be employed to maintain or improve rangeland vegetation and long-term soil productivity. Annual reductions in the utilization guideline may be made based on resources conditions.

Additional information regarding the Utilization guideline can be found in the Monitoring section of the Allotment Management Plan.

Grazing Intensity Guideline

Grazing intensity (or Seasonal Utilization) is defined as the amount of herbage removed through grazing or trampling during the grazing period. Grazing intensity will be measured at the end of each pasture's livestock grazing period.

Grazing intensity will be managed to allow for the physiological needs of plants. Generally, grazing intensity will be managed at moderate levels (40-50%) in the late spring and early summer months when sufficient opportunity exists for plant regrowth. During the late summer and fall, grazing intensity will be managed at conservative levels (30-40%) when the potential for plant re-growth is limited. The grazing intensity guideline will be the primary factor in determining when livestock need to move to the next pasture; but other factors such as climatic conditions, opportunity for plant regrowth, and previous year's utilization level will also be considered. Annual reductions in the grazing intensity guideline may be necessary based on resource conditions.

Additional information regarding the Grazing Intensity guideline can be found in the Monitoring section of the Allotment Management Plan.

Pasture Grazing Period

The grazing period within each pasture will be based upon weather/climate conditions, current growing conditions, and the need to provide for plant re-growth following grazing. The length of the grazing period within each pasture will also consider and manage for the desired grazing intensity and utilization guidelines. The grazing period per pasture will generally not exceed 30 days during the early to mid season use period (May - July), and 45 days during the mid to late season use period (August - October). Pastures will be grazed only once during the grazing season.

Structural Range Improvements

1. Existing Structural Range Improvements

Structural range improvements assigned to you for maintenance are listed in your Term Grazing Permit and are also identified on the allotment map. These improvements are to be fully maintained annually to comply with permit requirements (Part 2, Section 8i). Any maintenance you perform must conform to the standards specified by your District Rangeland Management Specialist. The grazing permittee is responsible for all

maintenance materials, supplies and equipment necessary to properly maintain all range structural improvements. The Forest will replace range structural improvement materials and/or supplies at the end of the improvement's life; when maintenance and repair is no longer feasible to keep the improvement properly maintained and functioning. **Please note that you must notify the District Rangeland Management Specialist at least 60 days prior to the beginning of any maintenance work that requires the use of heavy equipment.**

2. New Structural Range Improvements

To improve grazing management, approximately four miles of new three-strand barbwire and smooth wire fence may be constructed in the Headquarters pasture. This fence would divide the pasture, creating the North and South Headquarters pastures, and would improve grazing management by improving the timing, intensity, frequency and duration of livestock grazing.

This fence will be constructed in accordance with Forest Service specifications developed to facilitate wildlife passage. Material for this fence will be supplied by the Forest Service and the permittee will provide the labor to construct the new barbed wire fence. Fence construction activities may not begin until the appropriate clearances have been obtained and authorization is received from the Forest Service.

Mineral/Nutrient Supplements

Mineral and protein supplements (typically salt and protein blocks) are generally necessary in range livestock operations and can be used to improve livestock distribution. The following guidelines will be used when placing salt and protein blocks:

1. In general, salt and protein blocks should not be placed within ¼ mile of water.
2. To aid in livestock distribution, salt and protein blocks should generally be placed in areas of light forage utilization.
3. Salt and protein blocks will not be placed in areas of depleted range, erosive soils, or sensitive plant or animal species. Areas of sensitive plant or animal species will be identified by your Rangeland Management Specialist and included in each year's Annual Operating Instructions.
4. No more than three blocks (50 lb. blocks) of salt/protein will be placed at any location at any one time.
5. Salt/protein will not be placed at the same location twice during the same grazing season.
6. The use of portable salt/protein block containers is encouraged but not mandatory.

Temporary Livestock Water

Temporary sites for livestock water may be needed and should be used as necessary to assist in livestock distribution. The following requirements will apply to temporary livestock water locations:

1. Coordinate with the District Rangeland Management Specialist to identify temporary livestock water locations for individual pastures prior to the grazing period.
2. To aid in livestock distribution, the temporary livestock water locations should generally be in areas of light forage utilization.
3. Generally, temporary livestock water locations will not be located at sites used in previous years.

4. Temporary livestock waters will not be located in areas of depleted range, erosive soils, or sensitive plant or animal species. Areas of sensitive plant or animal species will be identified by you Rangeland Management Specialist and included in each year's Annual Operating Instructions.
5. Temporary livestock water locations will be moved when the desired forage utilization levels have been reached.
6. Escape ramps for small mammals and birds will be placed in all water troughs and open water storage tanks.
7. Temporary livestock water storage tanks and troughs will be removed when livestock leave the pasture.

Mitigation Measures for Special Status Species

There are no threatened and endangered species or critical habitat within the permitted livestock grazing area of the Peaks allotment (#13, #18, Badger, Headquarters, Holding, Kelly, Kendrick, Missouri Bill, and Saddle Mountain pastures). No mitigation measures are required for listed Federal, State, and Forest Service special status species.

Monitoring

Two types of monitoring will be used for monitoring resource conditions and livestock management; implementation monitoring 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. Monitoring frequency varies by each activity and will be accomplished collaboratively by Forest Service personnel, permittee, and cooperating agencies.

Implementation Monitoring

Implementation monitoring will be conducted on an annual basis and will include the following:

Permit Compliance: Throughout each grazing season, Forest Service personnel will monitor activities on the allotment to ensure compliance with Permit terms and conditions, the allotment Management Plan, and the Annual Operating Instructions.

Livestock Actual Use: Permittee will keep accurate records regarding actual livestock numbers and pasture use dates on the form supplied as part of the Annual Operating Instructions. This form will be submitted to the Forest Service at the end of the grazing season.

Range Readiness: Range readiness is assessed prior to the start of the grazing season by Forest Service personnel to determine if vegetative conditions are ready for livestock grazing. The range is considered ready for grazing once cool season grasses have leafed out, forbs are in bloom, and brush and aspen have leafed out. These characteristics indicate the growing season has progressed far enough for plants to replenish root reserves so that grazing will not seriously impact the forage plants.

Grazing Intensity: Grazing intensity monitoring will occur within each of the main grazing pastures during, or immediately after, the period when livestock are grazing the pasture. Grazing intensity is defined as the amount of herbage removed through grazing or trampling during the grazing period. Grazing intensity will be used by the Forest Service and the permittee to control

actual pasture moves. Livestock may need to be moved out of a pasture sooner if the grazing intensity guideline is reached before the planned move date. Likewise, livestock may stay longer in a pasture if grazing intensity is below the established guideline when the planned move date arrives.

Grazing intensity measurements will be taken in key areas which reflect grazing effects within an entire pasture. A minimum of one key area will be established within each main grazing pasture, at existing long-term monitoring sites if possible, to represent the overall grazing intensity within the pasture.

Utilization: Utilization monitoring will occur at the end of the growing season within each of the main grazing pastures. Utilization is defined as 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 measurements will be taken in key areas which reflect grazing effects within an entire pasture. A minimum of one key area would be established within each main grazing 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 will not be used alone, but will be used along with climate and condition/trend data, to determine stocking levels and pasture rotations for future years.

If monitoring shows that the utilization guideline was exceeded in a pasture, the grazing schedule and/or cattle numbers will be adjusted for the following year. If utilization is exceeded after these adjustments are made, then changes will be made to the grazing management system.

Forage Production and Ground Cover: Forage production assessments will be made to determine stocking levels for the grazing season and will also be used during the grazing season to determine if adjustments in the stocking level should be made. Qualitative assessments of ground cover will also be made and used as an indicator of condition and trend; observed changes may indicate the need to conduct effectiveness monitoring (condition and trend) prior to the scheduled interval.

Precipitation: Precipitation is currently recorded at 2 sites that approximate the precipitation for the allotment. Additional precipitation gauges may be placed on the allotment for more localized information.

Allotment Inspection: A written summary will be completed each year by Forest Service personnel to document the overall history of that year's grazing. This document will include a monitoring summary, livestock actual use, weather history, and a discussion of the year's accomplishments and problems. Information from this report will be used in preparing the following year's grazing plan.

Effectiveness Monitoring

Effectiveness monitoring will be used to evaluate the success of management in achieving the desired objectives. Effectiveness monitoring will occur within key areas on permanent transects

at an interval of 10 years or less. Effectiveness monitoring may also be conducted if data and observations from implementation monitoring (annual monitoring) indicate a need. Effectiveness monitoring will include the following:

Forage Production: Forage production surveys will be conducted using the best available methods at that time. Forage production data will be used as a tool to manage this allotment, but will not be the sole measurement to establish carrying capacity.

Long Term Trend Monitoring: 26 Parker Three-Step clusters were established on what is now the Peaks allotment in the late 1950's and early 1960's. Currently 18 of those historic locations continue to be monitored; attempts to relocate the other 8 locations have failed. Data from the original 18 Parker Three-Step clusters represent one of the best historic records of vegetation and ground cover trends. In 2007, frequency, ground cover, and canopy cover plots were added at the Parker Three-Step transect locations. Data was last collected from these 18 long term trend monitoring locations in 2007.

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. This will provide information on plant composition and additional information on regeneration.

Ocular plant canopy cover plots (0.10 acre plots) will be used to compare existing conditions with potential and desired vegetative community conditions. An explanation of the potential and desired vegetative community conditions can be found in the Project Record for the Environmental Assessment for the Peaks Allotment. Over time, these plots will document canopy cover changes.

Adaptive Management

Adaptive management will continue to be used on the allotment to maintain and improve the vegetation, soil, and watershed conditions. Adaptive management allows the Forest Service to adjust the timing, intensity, duration and frequency of livestock grazing in response to changing ecological conditions, climatic conditions, and management activities. If monitoring indicates that changes are needed, management will be modified in cooperation with the permittee and the changes will be implemented through the Annual Operating Instructions. Changes may include administrative decisions such as the specific number of livestock authorized annually, specific dates of grazing, intensity of grazing, the class of animal, or modifications in pasture rotations. Adaptive management changes in livestock management will not exceed the limits established in the environmental analysis decision document for the timing, intensity, duration, and frequency of livestock grazing.

Appendix 1: Example of a Five-year Pasture Rotation Schedule for the Peaks Allotment – No fence constructed to split Headquarters Pasture

| Year | Pasture | Grazing Period (Days) |
|--------|-------------------|-----------------------|
| Year 1 | Kelly | 25 |
| | Kendrick | 25 |
| | Saddle Mountain | 25 |
| | Badger | 35 |
| | Missouri Bill | 35 |
| | Holding, #13, #18 | 10 days |
| | Headquarters | Rested |
| Year 2 | Kendrick | 25 |
| | Saddle Mountain | 25 |
| | Kelly | 25 |
| | Missouri Bill | 35 |
| | Headquarters | 35 |
| | Holding, #13, #18 | 10 days |
| | Badger | Rested |
| Year 3 | Saddle Mountain | 25 |
| | Kelly | 25 |
| | Kendrick | 25 |
| | Headquarters | 35 |
| | Badger | 35 |
| | Holding, #13, #18 | 10 days |
| | Missouri Bill | Rested |
| Year 4 | Kelly | 25 |
| | Kendrick | 25 |
| | Saddle Mountain | 25 |
| | Badger | 35 |
| | Missouri Bill | 35 |
| | Holding, #13, #18 | 10 days |
| | Headquarters | Rested |
| Year 5 | Kendrick | 25 |
| | Saddle Mountain | 25 |
| | Kelly | 25 |
| | Missouri Bill | 35 |
| | Headquarters | 35 |
| | Holding, #13, #18 | 10 days |
| | Badger | Rested |

Appendix 2: Example of a Five-year Pasture Rotation Schedule for the Peaks Allotment – Fence constructed to split Headquarters Pasture

| Year | Pasture | Grazing Period (Days) |
|--------|--------------------|-----------------------|
| Year 1 | Kelly | 25 |
| | Kendrick | 25 |
| | Saddle Mountain | 25 |
| | Badger | 35 |
| | Missouri Bill | 35 |
| | Holding, #13, #18 | 10 days |
| | North Headquarters | Rested |
| | South Headquarters | Rested |
| Year 2 | Kendrick | 25 |
| | Saddle Mountain | 25 |
| | Kelly | 25 |
| | North Headquarters | 35 |
| | South Headquarters | 35 |
| | Holding, #13, #18 | 10 days |
| | Badger | Rested |
| | Missouri Bill | Rested |
| Year 3 | Saddle Mountain | 25 |
| | Kelly | 25 |
| | Kendrick | 25 |
| | Missouri Bill | 35 |
| | Badger | 35 |
| | Holding, #13, #18 | 10 days |
| | North Headquarters | Rested |
| | South Headquarters | Rested |
| Year 4 | Kelly | 25 |
| | Kendrick | 25 |
| | Saddle Mountain | 25 |
| | South Headquarters | 35 |
| | North Headquarters | 35 |
| | Holding, #13, #18 | 10 days |
| | Badger | Rested |
| | Missouri Bill | Rested |
| Year 5 | Kendrick | 25 |
| | Saddle Mountain | 25 |
| | Kelly | 25 |
| | Badger | 35 |
| | Missouri Bill | 35 |
| | Holding, #13, #18 | 10 days |
| | North Headquarters | Rested |
| | South Headquarters | Rested |