



**DECISION NOTICE AND
FINDING OF NO SIGNIFICANT IMPACT
K FOUR GRAZING ALLOTMENT MANAGEMENT
U.S. FOREST SERVICE
CHINO VALLEY RANGER DISTRICT, PRESCOTT NATIONAL FOREST
YAVAPAI COUNTY, ARIZONA**

DECISION NOTICE

Based upon my review of the K Four Grazing Allotment Management Environmental Assessment (EA), I have decided to implement Alternative 1, which includes the following elements and resource protection measures:

Summary of specific components of Alternative 1, K Four Allotment

Number of Livestock	Grazing System	Grazing Intensity Guidelines
<p>A range of stocking from 2100 to 3600 Animal Unit Months on a dormant season basis (generally from October 15th through April 15th), annually. As an example, this stocking level would provide for livestock numbers to range from 350 to 600 head of cattle -cow/calf pairs and bulls - for 6 months. The number of cattle grazed in any one year will be determined by adaptive management and consideration of current resource conditions.</p>	<p>Dormant season grazing using a rest rotation grazing strategy whereby 2 out of 3 pastures are used every 6-month season, and one pasture is rested every season. Each pasture would receive 18-months of rest one grazing season out of three, and warm-growing season rest every year.</p>	<p>A management guideline of 35-45% utilization of key forage plants in upland key areas as measured at the end of the seasonal use period;</p> <p>Up to 50-60% leaders browsed on key upland woody species;</p> <p>Minimum stubble height on key riparian herbaceous species: four to six inches where sedges and rushes are key and eight inches where deergrass is the key species in areas attaining Proper Functioning Condition; stubble height of six to eight inches on sedges and rushes in areas departed from PFC;</p> <p>Up to 20% use by weight on key woody species within riparian areas; or less than 50% of terminal leaders browsed on woody species less than 6 feet tall.</p>

Site-specific Resource Protection Measures

Soil conditions associated with TEUI 481 in the pinion-juniper vegetation type were determined to be in impaired condition due to low soil surface and subsurface organic matter and elevated soil loss. These areas are located within portions of the Indian and North Pastures. Site-specific measures are summarized as follows:



- Rest North and Indian Pastures for 18-months in 1 out of 3 grazing seasons to provide cool-season grasses with rest and allow for accumulation of surface litter to protect soil from accelerated erosion.
- Fence portions of Hitt Wash near Round Valley Spring to protect breeding habitat for lowland leopard frogs which are on the Regional Forester's Sensitive Species list. Alternate water sources would be provided in the uplands for livestock, as needed.
- Extend fencing of the enclosure range study plot in the North Pasture to determine the amount of soil recovery that can be expected by excluding grazing alone. Although this is not specifically a site protection measure its purpose is to provide a means for long-term study of the success of the measures prescribed above and perhaps influence future range decisions. How and if it will be used will be left to the determination of future range managers. The enclosure is not intended to be used as an annual monitoring tool to measure annual utilization or determine annual livestock grazing numbers.

In the event that the above resource protection measures do not accomplish site-specific resource objectives, additional management options may be implemented. These measures will be designed to address site-specific resource concerns and may include, but are not limited to, such things as temporary fencing, electric fencing, drift fences, additional livestock enclosures, water pipelines, storage and troughs; reconstruction of non-functional improvements and construction of new improvements such as spring boxes, drift fences, and water gaps.

Range Structural Improvements

The following new structural improvements have been developed to improve grazing management. If some of these improvements are not implemented over the life of the term grazing permit, the upper limit of permitted livestock numbers may not be achievable on a sustained basis, or seasonal use periods may be shortened. Different types of water developments may be employed depending on the location, and could include a catchment apron and storage tank ("trick tank") with pipeline to water troughs, or pipelines to water troughs from existing spring developments or wells.

- Add approximately 2.5 miles of new pipeline, storage tanks, and troughs in the North Pasture as an extension of the existing Juniper Springs water system and Juniper horizontal well. Two separate lengths of pipeline will be added; one segment to the north in sections 1 and 6, and another segment heading south and west in sections 18, 19, and 24.
- Develop a new water source, likely a well with storage tank and troughs, in the Round Pasture, section 6.
- Develop a new water source in the Round Pasture east of Round Valley Spring.
- Add approximately 2 miles of pipeline and troughs to extend the Indian Springs water system in the Indian Pasture, sections 2 and 3.
- Relocate and reconstruct the allotment boundary fence in the North Pasture so that the fence is located on National Forest System lands bordering the private land on the north and west sides of section 3.



Non-Structural Range Improvements

- Juniper cutting without prescribed burning – 384 acres. Located in northeast corner of North Pasture.
- Juniper cutting and possible prescribed burning follow-up treatment – 1,658 acres. Located primarily on TEUI 481 in North and Indian Pastures. Cut to a residual basal area of 5-10 square feet per acre average over the treatment block, achieved by retaining “reserve island” clumps across the treatment block with multiple age classes, generally retaining pinyon and large (monarch) alligator junipers.
- Group selection juniper cutting with possible follow-up burning – 1,064 acres. Located in Round Pasture, primarily on TEUI 461. Cut junipers on up to 40% of the treatment block in more productive sites that are likely to be able to respond to canopy cover removal and have a low density of shrub oak in understory. Hand cutting with no lop and scatter (leave juniper skeletons to create microclimates for grass). Evaluate follow-up burning treatment based upon recovery of vegetation in openings; burning would only occur after herbaceous plants have established and when juniper skeletons have broken down to a point where burn severity will likely be low.
- Spot tree and brush cutting with prescribed burning – 3,382 acres. Located in Indian Pasture, primarily on TEUI 434. Mechanical or hand cutting of juniper trees and brush either leaving juniper skeletons in place to create microclimates for grass establishment, or removal of cut vegetation off-site. Apply to create openings on approximately 25% of the treatment block. Evaluate follow-up burning treatment based upon recovery of vegetation in openings; burning would only occur after herbaceous plants have established and when juniper skeletons have broken down to a point where burn severity will likely be low.
- Targeted prescribed burning – 7,380 acres. Located in all three pastures. On areas with productive soils supporting high levels of shrub cover and generally located on steeper slopes. Some burn blocks will be pretreated by hand or machine cutting of brush and juniper to provide an adequate fuel load to facilitate fire spread.

The vegetation treatment acreage shown above has areas of overlap and should not be added together to constitute total treatment acres. For example, most juniper treatments areas will be burned in 3-5 years after the juniper cutting, so the same acres are counted twice in the above description, in both “Juniper cutting and possible prescribed burning” and “Targeted prescribed burning”.

Other Components of Alternative 1

Adaptive Management

Adaptive management is designed to provide sufficient flexibility to allow livestock management to address changes in climatic conditions, seasonal fluctuations in forage production, and



other dynamic influences on the ecosystem in order to effectively make progress toward or maintain desired conditions of the rangeland and other resources. Under the adaptive management approach, regular/annual monitoring of short-term indicators may suggest the need for administrative changes in livestock management. If monitoring indicates that progress toward desired conditions is not being achieved on the allotment, management will be modified. Modifications can include adjustments in timing, intensity, and duration of grazing. Timing is the time of year the livestock are present in a pasture. Intensity is the degree to which forage is removed through grazing and trampling by livestock. Duration is the length of time livestock are present in a given pasture. These modifications would be made through administrative decisions such as: the specific number of head stocked on the allotment annually or in a particular season; the class of animals stocked (cow/calf pairs vs. yearlings, steers or heifers, etc.); specific dates of grazing; livestock herd movement; and periods of rest, deferment, or non-use of portions or all of the allotment for an appropriate period of time, as conditions warrant. Such changes will not result in exceeding the AUMs authorized for livestock use that is included in the selected alternative.

Best Management Practices

Best Management Practices (BMPs) are a practice or combination of practices determined to be the most effective, practicable means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals, and are developed to comply with the Clean Water Act (FSH 2509.22_10.5). The Interdisciplinary Team followed the guidance in the Southwest Region Forest Service Handbook 2509.22, Chapter 20, in the formulation of resource protection measures related to range management that also function as BMPs to address water quality and watershed concerns. These resource protection measures will be implemented in order to comply with the Clean Water Act. Best Management Practices for this project are displayed on pages 82-89 of the EA.

New Range Improvements: The list of 5 new range improvements that are authorized for construction is shown on page 2.

Maintenance of Range Improvements: The Term Grazing Permit includes a list of all improvements which the permittee will continue to maintain at a level that effectively provides for their intended uses and purposes. Range improvements will be inspected periodically during the term of the permit to document condition. Annual Operating Instructions (AOIs) will identify range improvements in need of maintenance. Existing improvements may be replaced as conditions warrant.

Access to Improvements: Authorization for cross-country motorized travel is provided for the permittee to administer the livestock operation and maintain improvements under the terms and conditions of the Term Grazing Permit.

Annual authorization for actions implementing management direction in the Allotment Management Plan (AMP) will be included in the Annual Operating Instructions (AOI), such as a description of the anticipated level of cross-country travel, travel needed for improvement maintenance, new improvement construction, or reconstruction of existing improvements.



All authorizations for cross-country motorized travel are subject to existing regulations intended to protect natural and/or heritage resources. Cross-country travel is not allowed when such travel would cause unacceptable resource damage. Approval is granted at annual authorization meetings or on a case by case basis.

Monitoring

In order to evaluate whether grazing management is making progress towards meeting desired resource conditions, two types of monitoring would be conducted:

1. Implementation monitoring would be conducted by the Forest Service, with possible assistance from the permittee, and may include but is not limited to the following: livestock actual use data, compliance with pasture rotation schedules, grazing intensity evaluations during the grazing season (within key and critical areas), utilization at the end of the growing season (within key areas), and visual observation of vegetation and ground cover.
2. Effectiveness monitoring to evaluate the success of management in achieving the desired objectives would occur within key areas at an interval of ten (10) years or less. Effectiveness monitoring may also be conducted if data and observations from implementation monitoring (annual monitoring) indicate a need. This type of monitoring can include species composition, plant cover, frequency or density, and/or vegetative ground cover monitored at key areas and at areas identified with site-specific resource concerns. Both qualitative and quantitative monitoring methods can be used. Methods for monitoring and inventory that are standard, accepted protocols can be found in the following publications: Region 3 Rangeland Analysis and Management Training Guide (USDA 2013 revised), Interpreting Indicators of Rangeland Health (Technical Reference 1730-37, 2010), and the Guide to Rangeland Monitoring and Assessment (Smith et al. 2012).

Monitoring activities would be focused on those resources that need improvement or where there is a concern for an important habitat type. For this project, monitoring would be conducted in TEUI map unit 481 to make sure that the residual vegetative cover remaining after grazing is sufficient to allow for improvement of the soil resource. Riparian habitat at intermittent streams and springs is very important for wildlife. These areas would be visited to make sure they are properly managed during the grazing season and to make sure unauthorized use does not occur after the scheduled season. Key grazing areas would be visited during and after the grazing season to monitor grazing intensity levels so that satisfactory vegetation conditions are maintained.

Monitoring of Vegetation Treatments: In two small sub watersheds of approximately 100 acres each, vegetation monitoring may be conducted to show how well the treated watershed recovers and to provide information about the capacity to maintain treatment effectiveness through low-intensity fire. This monitoring could also be used to inform managers about the effectiveness of soil erosion mitigation measures. Sediment traps consisting of rock gabion structures may be installed along with a small collection reservoir. Stream flow out of the small watersheds may be evaluated by installing pressure transducers and data loggers in the channel. The effects of treatments on soil moisture may be studied with soil probes.



Decision Rationale

I have selected Alternative 1 because it meets the purpose and need for action described in the EA and allows desired conditions to be achieved over the long term for soil, watershed, and riparian resources while still providing the opportunity to support a local ranching operation. Existing vegetation conditions in upland areas are already satisfactory, and will be maintained by implementing this proposal. Implementing the vegetation treatments as described will provide benefits to wildlife habitat, soil stability, and watershed condition. The effects of implementing Alternative 1 have been disclosed in Chapter 3 of the EA for Rangeland Vegetation, Forest Health, Soils, Watersheds and Water Resources, Wildlife, Aquatic Species, and Rare Plants; Recreation, and Heritage. I have reviewed these summary findings in the EA as well as the specialist reports in the project record, and conclude that the design of the alternative and the associated resource protection measures will allow for desired conditions to be met and will be in compliance with the Prescott National Forest Land Management Plan. Alternative 1 provides grazing opportunities while also allowing for improvement of soil and watershed values. This alternative will move resources towards desired conditions or maintain conditions that are already favorable by providing growing season rest, implementing site-specific grazing intensity guidelines, and by authorizing the construction of range improvements designed to improve livestock distribution and reduce reliance on riparian areas as water sources.

Alternative 2, No Grazing, would also allow desired conditions to be met, but it would not meet the Congressional intent to allow grazing on suitable lands. Nor would it comply with Forest Service policy to make forage available to qualified livestock operators from lands suitable for grazing while contributing to the economic and social well-being of people by providing opportunities for economic diversity and by promoting stability for communities that depend on range resources for their livelihood (FSM 2203.1, 2202.1).

The K Four Grazing Allotment Management EA and the project record document the environmental analysis and conclusions upon which this decision is based.

Public Involvement

Notice of the intention to initiate the present analysis of the proposed action for this allotment was provided in the Schedule of Proposed Actions (SOPA) at <http://www.fs.fed.us/sopa/> beginning in September of 2011 and updated regularly. A letter dated 5/28/2013 describing the proposed action was sent to the permit holder of the allotment and to members of the public, non-profit groups, and other entities who have expressed interest in livestock grazing activities. It was also sent to State and Federal government entities and to six Native American Tribes interested in activities in the area inviting them to provide information regarding concerns or opportunities related to the proposal. The content of the scoping responses was reviewed by the ID Team and Deciding Official and resulted in the identification of no additional issues that were not addressed within the design criteria of the proposed action. No additional alternatives were developed as a result of public scoping.



The *Environmental Assessment for the K Four Grazing Allotment Management* was mailed to scoping respondents and the grazing permittee, and a legal notice announcing the start of the 30-day comment period was posted in *The Daily Courier* newspaper on May 9, 2014. There were four responses received during the 30-day comment period. The responses were reviewed by the ID Team Leader, resource specialists, and the Deciding Official to determine if any new information was received that would have bearing on a decision between the two alternatives. No new concerns were raised by the comments.

FINDING OF NO SIGNIFICANT IMPACT

The significance of environmental impacts must be considered in terms of context and intensity. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human and national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. In the case of a site-specific action, significance usually depends upon the effects in the locale rather than in the world as a whole. Intensity refers to the severity or degree of impact. (40 CFR 1508.27)

Context

The K Four Allotment is comprised of National Forest System (NFS) lands with some inclusions of private land found within the borders of the allotment. Only the NFS lands are included in this decision, a project area of approximately 27,200 acres. The allotment is located in the northwestern portion of the Chino Valley District, approximately 10 miles northwest of Williamson Valley, Arizona. Elevation ranges from about 4,900 feet on the east side of the allotment to nearly 7,000 feet in the Juniper Mesa Wilderness at the northwest corner. The topography of the allotment is varied from steep, rocky terrain around Juniper Mesa to rolling hills around Indian Spring. The variable terrain lends itself to cattle use being focused on the more flat and gentle slopes, with moderate to steep terrain receiving little to no cattle use.

Vegetation on the allotment consists mainly of pinyon-juniper woodlands. The understory varies from dense chaparral, to mixed shrubs and grasses, to woodland/grassland mix. There are some ponderosa pine communities found on steeper slopes on Juniper Mesa and along shaded canyons. Canopy cover from shrub species is moderately to extremely thick in some locations to the extent that herbaceous forage is reduced or absent. A substantial portion of the forage base of the allotment is provided by desirable browse species such as mountain mahogany, deerbrush, Apache plume, and silktassel. Perennial grasses can be locally abundant, especially in juniper woodlands that have been previously treated to remove the juniper overstory. Important forage grasses on the allotment include blue grama, sideoats grama, threeawn, sand dropseed, western wheatgrass, and squirreltail.

Precipitation patterns in this area are bi-modal with monsoon events occurring during the summer and a second period of precipitation occurring within the winter season. Precipitation has been measured at Walnut Creek climate station from 1915 to 2010. For the period of record from 1981 to 2010, the mean annual precipitation was 15.2". Cool-season precipitation (October through May) for this timeframe had a mean of 9", and summer precipitation (June through



September) accounted for 6.2". The average minimum temperature typically occurs in December, and is around 20 degrees F, and the average maximum temperature occurs in July at just over 90 degrees F.

The allotment is drained by Walnut Creek, Hyde Creek, Indian Springs Wash, Mud Tanks Wash, and Hitt Wash, all of which are tributaries of the upper Verde River. Most of these drainages are ephemeral or intermittent flow. Those with intermittent flow will have persistent water for part of the year, often around a spring source in the drainage. Groundwater drains toward the aquifer of the upper Big Chino along the western edge. Riparian vegetation occurs along portions of Hitt Wash, Hyde Creek, and Indian Springs Wash. Walnut Creek has the most extensive riparian vegetation, but this occurs on private lands outside the area of this analysis. The K Four Allotment is within the Williamson Valley Wash and Lower Big Chino Watersheds (5th level HUC) nested within the Big Chino Wash sub basin (4th level unit). Portions of seven 6th level watersheds are within the allotment.

Intensity

The intensity of effects was considered in terms of the following:

Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that, on balance, the effect will be beneficial. Consideration of the intensity of environmental effects is not biased by beneficial effects of the action.

The degree to which the proposed action affects public health or safety. There will be no significant effects on public health and safety because rangeland management activities similar to those described in the EA have occurred in this area, as well as over most of the Forest, without issues related to public health and safety.

Unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. There will be no significant effects on unique characteristics of the area. There are no Inventoried Roadless Areas (IRAs) within the allotment. There are approximately 2,434 acres of the Juniper Mesa Wilderness area on the allotment, representing about 33% of the entire wilderness area. Livestock have grazed in this area for decades and the wilderness character would not be affected by livestock. There are no eligible or designated Wild and Scenic River reaches. The allotment is known to contain cultural resources of both prehistoric and historic periods. The Forest Service's proposal to continue livestock management is considered to have a no adverse effect on the heritage properties located within the K Four Allotment since the construction of new range developments will avoid impacts to cultural resources.

The degree to which the effects on the quality of the human environment are likely to be highly controversial. The effects on the quality of the human environment are not likely to be highly controversial. There is no known credible scientific controversy over the impacts of the proposed action. This environmental analysis is tiered to the Land Management Plan (LMP) Environmental Impact Statement (EIS). Forest-wide effects of LMP's standards were disclosed in that EIS. The selected alternative with the identified resource protection



measures meets LMP standards. In addition, extensive scoping was completed during the analysis in order to identify areas of potential controversy. The scoping activities are identified in the EA, this Decision Notice, and the project record. There has been no information presented that would demonstrate that the action would cause adverse impacts that could not be mitigated. I conclude that it is very unlikely that the environmental effects associated with the action will be highly controversial.

The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. The Agency has considerable experience with actions that are similar to the selected alternative. The analysis shows the effects are not uncertain, and do not involve unique or unknown risk. This action is similar to many past actions, both in this analysis area and adjacent areas. Effects of this action will be similar to the effects of past, similar actions. Livestock grazing has occurred on the Prescott National Forest for over 100 years. The Interdisciplinary Team that conducted the analysis used the results of past actions as a frame of reference, and combined that insight with scientifically accepted analytical techniques and best available information to estimate effects of the proposal (See EA Chapter 3).

The degree to which the action may establish a precedent for future actions with significant effects, or represents a decision in principle about a future consideration. The action is not likely to establish a precedent for future actions with significant effects because it is a stand-alone decision and each grazing allotment is evaluated independently on its own merits. Major follow-up actions will not be necessary. I conclude that this action does not establish precedent for future actions.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. The cumulative impacts have been displayed in this analysis in both the EA and in specialist reports contained in the project record. Chapter 3 of the EA discusses the combined effects of the project with other past, current and reasonably foreseeable future actions. Based on the discussions in the EA, specialist reports, and information identified during public review, I have concluded that there are no significant, cumulative impacts.

The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed, or eligible for listing, in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources. The action will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places. Areas proposed for ground-disturbing activities will be surveyed and all cultural resources or historic sites will be avoided. Consultation with the State Historic Preservation Officer (SHPO) under Section 106 of the National Historic Preservation Act will be completed prior to signing this decision.

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973. There are no Federally-listed Threatened or Endangered species or habitat within the project area. The Wildlife, Fisheries, and Rare Plants Report serves as the



Biological Evaluation for the K Four Allotment and documents the effects on species and habitat.

Whether the action threatens to violate Federal, State, or local law or requirements imposed for the protection of the environment. The action will not violate Federal, State, and local laws or requirements for the protection of the environment. This project is fully consistent with the Prescott National Forest Land Management Plan and the National Forest Management Act (NFMA), Clean Water Act, and the Federal Land Policy Management Act of 1976.

After considering the effects of the actions analyzed, in terms of context and intensity, I have determined that these actions will not have a significant effect on the quality of the human environment. Therefore, an environmental impact statement will not be prepared.

Findings Required by Other Laws and Regulations

This decision is consistent with the Prescott National Forest Land Management Plan (LMP). The project was designed in conformance with LMP direction concerning resources including range management; soils, watershed and riparian areas; wildlife, rare plant, fish, and aquatic species; and heritage resources.

The Finding of No Significant Impact (FONSI) and EA were evaluated to determine if further analysis is needed. I determined these actions will not have a significant effect on the quality of the human environment, and an Environmental Impact Statement (EIS) will not be prepared.

The National Environmental Policy Act provisions have been followed as required by 40 CFR 1500 and 36 CFR 220. The EA discloses the expected impacts of each alternative and discusses the identified issues. This document describes the decision I have made and my rationale for the decision.

The selected alternative complies with the provisions of the National Historic Preservation Act (NHPA). The State Historic Preservation Officer (SHPO) and any potentially affected tribes have been consulted. Documentation of surveys conducted for new range improvements that will be implemented within 2 years of this decision will be submitted to the SHPO for concurrence prior to finalizing this decision.

Water and air quality standards will be met. There are no classified floodplains or wetlands within the project area.

Administrative Appeal

The decision is appealable under 36 CFR 214.4(a) by the grazing permit holder only. Appeals must be submitted within 45 days of the date of notice of the signed decision.

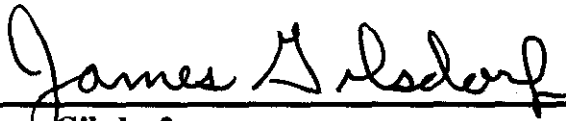


Implementation Date

If no appeals are filed within the 45-day time period, implementation of the decision may occur on, but not before, the 5th business day from the close of the appeal filing period. When appeals are filed, there will be a 45-day period to resolve the appeal.

Contact

For additional information concerning this decision, contact: Christine Thiel, ID Team Leader, Chino Valley Ranger District, (928) 777-2211.



9-30-2014

James Gilsdorf

Date

District Ranger

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