

Part 1: Introduction

Background

The Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands (Grasslands) [see Vicinity map in Appendix A] have been under federal ownership since the late 1930s and are currently administered by the Cibola National Forest and National Grasslands Supervisor's Office located in Albuquerque, NM. The Kiowa National Grassland covers 136,505 acres and is located within Mora, Harding, Union and Colfax Counties, NM, with the District Ranger Office located at Clayton, NM. The Rita Blanca National Grassland covers 93,323 acres and is located within Dallam County, TX and Cimarron County, OK, with the District Ranger Office also located in Clayton, NM. The Black Kettle National Grassland covers 31,301 acres and is located within Roger Mills County, OK, Gray and Hemphill Counties, TX, and the McClellan Creek National Grassland covers 1,449 acres and is also located in Gray County, TX. The District Ranger Office for both Black Kettle and McClellan Creek National Grasslands is located at Cheyenne, OK. The Kiowa National Grassland resides in the third Congressional District of New Mexico, the Rita Blanca and Black Kettle in the 13th Congressional District of Texas and the third Congressional District of Oklahoma, and the McClellan Creek National Grassland in the 13th Congressional District of Texas.

According to the National Forest Management Act of 1976 (NFMA), land and management resource plans are to be revised on a 10 to 15 year cycle. The management of the Grasslands has been directed from 1985 to the date of this document by the *1985 Cibola National Forest Land and Resource Management Plan*, which combined the management direction for the Grasslands with that for the forested, mountain districts of the Cibola National Forest. Upon the signing by the Regional Forester of the Record of Decision for this new land and resource management plan (plan) for the Grasslands, this new plan will replace the direction formerly provided by the 1985 plan for all of the Grasslands named above.

Preparation of the new plan was underway when the 2008 National Forest System land management planning rule was enjoined on June 30, 2009, by the United States District Court for the Northern District of California (*Citizens for Better Forestry v. United States Department of Agriculture*, 632 F. Supp. 2d 968 (N.D. Cal. June 30, 2009)). On December 18, 2009, the Department reinstated the previous planning rule, commonly known as the 2000 planning rule in the Federal Register (Federal Register, Volume 74, No. 242, Friday, December 18, 2009, pages 67059 thru 67075). The transition provisions of the reinstated rule (36 CFR 219.35 and appendices A and B) allow use of the provisions of the National Forest System land and resource management planning rule in effect prior to the effective date of the 2000 Rule (November 9, 2000), commonly called the 1982 planning rule, to amend or revise plans. The Cibola National Forest has elected to use the provisions of the 1982 planning rule, including the requirement to prepare an EIS, to complete its plan development for the Grasslands.

Roles and Contributions of Grasslands

Ecosystems and wildlife habitat: The Grasslands contribute to the sustainability of diverse southern Great Plains grassland ecosystems and associated wildlife. The Grasslands demonstrate successful ecosystem restoration of lands that were degraded during the Dust Bowl era. Grasslands management contributes to the sustainability of productive soils, high-quality water and riparian resources, and native prairie habitat and species. The Grasslands also include shinnery oak and playa lake ecosystems not found in other regions and under-represented on a landscape scale when compared to local private land shinnery oak vegetation conversion and playa lake degradation. The public values how Grasslands management demonstrates the coexistence of complimentary land uses such as cattle grazing, hunting, and oil and gas production without compromising the ecological integrity of grasslands habitat.

Recreation: Recreation opportunities on the Grasslands greatly contribute to the quality of life enjoyed by visitors. The Grasslands provide outstanding opportunities for hunting, fishing, camping, hiking,

viewing birds and other wildlife, driving to enjoy the scenery and open spaces, and visiting historic sites. The developed recreation sites, particularly the lake-based recreation complexes on the Black Kettle and McClellan Creek National Grasslands, and the developed sites in the Mills Canyon area, offer unique and significant features available for visitors to enjoy within this region.

Livestock Grazing: Livestock grazing on the Grasslands contributes to maintaining the ranching culture and lifestyle of these rural areas, improves the fiscal sustainability of local ranching operations, and contributes to historical disturbance processes. Over 96% of the Grassland units are used by permit-holders to graze their cattle. This use of the Grasslands contributes to the social and economic well-being of this area while sustaining native prairie ecosystems.

Energy Development: A small portion of the Grasslands contain rich oil and natural gas resources that contribute to meeting the nation's energy needs. The Grasslands may also play an important future role for alternative energy developments such as wind.

Scenic, heritage, and paleontological resources: The Grasslands contain significant scenic, heritage (historic and pre-historic) and paleontological (fossil) resources. These offer opportunities for the public to learn about the past and appreciate the resources and beauty of the Grasslands. These important resources provide opportunities to base tourism businesses on bird-watching, hunting, wildlife viewing, and visiting historic and cultural sites.

Designated Areas: Some areas on the Grasslands are formally designated to highlight and help preserve their unique characteristics. These designated areas include: the Canadian River/Mills Canyon Inventoried Roadless Area and eligible Wild and Scenic River corridor, Santa Fe National Historic Trail, and two scenic byways. These designated areas help to attract visitors and highlight remarkable historic, geologic, wildlife, scenic, and recreational features while protecting the area's unique ecological values. In addition, the designated Roadless Area is the only large area on the Grasslands managed for semi-primitive recreation activities.

Wildfire Prevention: The Forest Service plays a cooperating role in working with volunteer rural fire departments and others by contributing federal fire-fighting resources to help protect valuable natural resources along with private properties and communities.

Planning Process

In the summer of 2006, the Forest Service announced the initiation of the revision process of the Grasslands portion of the 1985 Cibola National Forest Land and Resource Management Plan. An Analysis of the Management Situation (AMS) was initiated for the Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands that provided the basis for the needs for change in the 1985 plan direction regarding future management of the Grasslands. Numerous public information meetings were held in communities in northeastern New Mexico, the Texas panhandle, and western Oklahoma to inform and gather input from the public addressing the need to change the current plan to address the Grasslands specifically. Input from the public meetings and evaluation by the Forest Service of the social and economic and ecological sustainability of the Grasslands set the stage for developing this new plan.

The 'Needs for Change' were synthesized into a set of key, integrated themes, or needs:

Include more adaptive management approaches,

Invasive species, climate change, and wildland fire are perhaps the three most pressing emerging issues faced by all land managers. These dynamic and complex issues and others that will surely come in future years, combined with other factors that are not easily predicted point to the need for management strategies that allow for decision-making processes that incorporate new and emerging information.

Better address the unique, local conditions of the Grasslands,

The ecological, social and economic conditions found in the Grasslands are highly unique. However, the current Plan includes little or no direction that speaks to these unique conditions of the Grasslands. The Grasslands contain unique local features and opportunities that call for specialized assessments and management strategies.

Address recreational opportunities and challenges,

The Grasslands contain many recreational opportunities that are not addressed in the current Plan. It is expected that interest in recreation on the Grasslands will shift over time; therefore, there is a need to develop clear recreational management objectives and strategies.

Better define short and long term energy development objectives,

Oil and gas development on the Grasslands is important to support the nation's energy needs and the local and regional economies of the Grasslands. However, as the energy needs of the nation shift towards more sustainable resources and oil and gas productivity on some parts of the Grasslands decrease, there is a need to provide management direction for alternative energy development on the Grasslands. Moreover, there is a need to provide direction for the sustainable management of the fuelwood/biomass and firewood products found on the Grasslands that are important to the local economy.

Summary of the Analysis of Management Situation: Socio-Economic Need-for-Change

Background

Local community residents have expressed that the Forest Service is maintaining good relationships and open communications with interested residents. These positive relationships strengthen the social cohesion and satisfaction with Forest Service actions within local communities. In addition, partnerships with other agencies and organizations have increasingly been used to meet Grasslands management objectives. Most partnership projects on the Grasslands are aimed at improving wildlife habitat and native ecosystem functions, or recreation sites and tourism opportunities that will enhance social and economic conditions in local communities.

Based on social demographic data, the area surrounding the Grasslands is considered rural with a few "urban clusters" of over 2,500 residents. Populations in all the rural areas around the Grasslands have been declining and are projected to continue to decline, while populations in the respective states and urban centers further from the Grasslands will continue to increase. Partly due to limited economic opportunities and low income levels, most Grasslands counties have more people moving out than in, particularly in the 20-35 year old age group. An aging population trend is influencing an increase in age-related income disbursements (i.e. social security, retirement account) that will continue to comprise the largest proportion of income for area residents.

Based on economic data, the employment rate and per capita income level in Grasslands counties are expected to remain stable with some periods of growth and decline. Job growth and income levels are expected to continue to lag behind the U.S. and the three states average. Over the last 34 years, job growth in the Grasslands counties has been slower than job growth for the States of Oklahoma, Texas, and New Mexico, and slower than national job growth. Most new jobs will continue to be low-income, non-salary, farming and ranching jobs with incomes that fluctuate seasonally. Job opportunities are expected to continue the shift from agriculture and oil-gas toward service jobs in urban areas further away from the Grasslands. The primary "industry" or economic activity in the area will continue to be livestock-related operations run by small businesses with less than 10 employees. Some oil and gas

industry jobs in the area are expected to be lost over the next 50 years but could be replaced by alternative energy jobs such as wind energy infrastructure development and maintenance.

Managed Recreation

The 1985 plan did not clearly and specifically address the issues related to recreation and scenic resources that play a vital role in supporting social and economic sustainability on the National Grasslands. The new plan needs to provide direction that is more specific to the Grasslands for providing these important rural economic development opportunities:

- The demand for day-hiking, particularly on scenic and interpretive trails, continues to increase on the National Grasslands.
- The new plan needs to provide more direction on management of dispersed recreation. There are components of the 1985 plan which are redundant with existing FS Handbook and Manual direction. Redundancies will be absent from the new plan, and current Handbook and Manual direction will be incorporated by specific reference.
- There is a need for the revised plan to reflect and support direction from the implementation of the Travel Management Rule. The new National Grasslands plan is being developed concurrently with the Travel Management Study EA for the Kiowa and Rita Blanca National Grasslands, but the new plan will not be pre-decisional to the findings of the EA or the resultant motor vehicle use map.
- There is a need for the new plan to provide direction to manage for recreation opportunities in a variety of different settings and levels of development, from large, developed recreation settings with many facilities, to primitive settings.
- There is a need for the new plan to provide direction that management of scenic resources be based on objectives for specific areas, particularly those areas identified as having high scenic quality.
- Plan direction addressing opportunities for visiting, touring, and enjoying guided and interpretive activities related to unique scenery, historic/cultural sites, wildlife, and formally-designated sites (such as eligible Wild and Scenic Rivers, Historic Trails and Scenic Byways) needs to be included in the new plan.
- The development of the new plan will assess the need for additional special area designations such as potential wilderness, an eligible Wild and Scenic River, or potential research natural areas (RNA) and provide direction.

Human Influences on the Grasslands

The 1985 plan did not clearly and specifically address the issues related to social demographics and economic conditions and trends, or maintaining consumptive and non-consumptive land uses that play a vital role in supporting social and economic sustainability in the rural National Grasslands areas. The new plan should provide direction that is more specific to the Grasslands for providing these important land uses and economic opportunities:

- The new plan needs to provide management direction to the livestock grazing program that incorporates adaptive management toward ecosystem-based desired conditions.
- Because of increasing interest in alternative energy enterprises such as wind farms in the proximity of the National Grasslands, the new plan needs to provide direction for guiding energy development on the National Grasslands, while protecting natural resources, heritage sites and scenery.

- There is a need to provide direction in the new plan for the rehabilitation of disturbed sites, such as oil and gas pads and roads, after operations have ceased, in order to protect soil productivity and re-establish vegetative cover.
- The new plan needs to provide direction to the process of obtaining legal road access to National Grassland units, access that meets public, private landowner and management needs.
- Because of the projected increase and changes in the type of energy developments in the region and the land ownership pattern of the National Grasslands, the new plan needs to provide direction on the permitting of utility easements and related special uses.
- There are many special uses of the National Grasslands that provide economic support to local communities. The new plan needs to provide direction for accommodating the removal of miscellaneous products for commercial, non-commercial and Tribal use, such as wood products, plants, grass seed, or other materials.
- The new plan needs to provide direction on the non-commercial use of common mineral materials, so that resources can be adequately protected.
- The new plan should provide direction on the management of firewood and fuelwood harvesting and gathering on the National Grasslands.
- There is a need for the new plan to provide direction on opportunities to conduct research on the National Grasslands, regardless of whether a research natural area is established.
- The checkerboard pattern of the National Grassland units and private land, along with the types of fuels found on the National Grasslands, create a fire environment which is very different from forests of the intermountain west. The new plan needs to provide direction for applying management strategies for responding to wildland fires and using prescribed fire on National Grassland units to avoid loss of life or significant property damage.
- The new plan needs to provide updated direction on the stabilization and preservation of historic structures and Traditional Cultural Properties. The new plan should also provide direction on the role of heritage sites in economic development.

Summary of the Analysis of Management Situation: Ecological Need-for-Change

Background

A brief explanation is given here of the process and logic behind how ecological and species diversity risk assessments were conducted and the results of such assessments; how biological diversity issues were identified, and how needs for change were determined and developed into ecological futuristic plan component statements.

Ecosystem attributes for the Grasslands were analyzed to determine if the sustainability of Potential Natural Vegetation Types (PNVTs), soil, water, air, and animal and plant species richness and abundance are at risk. This assessment was based on current conditions, deviation from historical reference conditions, and projected future trends. If the ecosystem attribute is projected to depart from its reference condition, then the attribute was determined to be at risk. If the attribute is significantly departed from its reference condition and is stable (i.e., neither trending further away from nor towards the reference condition) then it was determined to be at risk (this scenario was not found for any of the ecosystem characteristics on the Grasslands). If current management activities are resulting in the ecosystem characteristic trending towards its reference condition, the characteristic was determined not to be at risk.

An animal and plant species viability assessment was conducted by processing each species potentially occurring on the Grasslands through an assessment of various habitat and population factors and threats¹. Natural history and population information was gleaned from the references used in the screening process and from National Grasslands biologists; State of OK, TX, and NM biologists; and the U.S. Fish and Wildlife Service biologists. The results of this process provided a numerical ranking of the risk to a species. Those species found to be at high risk were further assessed for their likelihood of being affected by four population and distribution scenarios listed below:

Widespread declines in population in the plan area, and new isolation of populations within the area,

Widespread population decline but without isolation of populations,

Localized population declines that may be accompanied by some minor restrictions in population interactions,

Populations and their distribution are unstable,

Four out of the seven PNVTs found on the Grasslands have greater representation on the Grasslands in comparison to the surrounding landscape within the Grasslands administrative boundary. These are the shinnery oak, mixed hardwood riparian, cottonwood-willow and sand sagebrush PNVTs. Mixed grass and shortgrass prairie have less representation on the Grasslands in comparison to the surrounding landscape, and piñon-juniper is equally represented.

The mixed grass prairie and piñon-juniper PNVTs are close to their historical range of variation condition², and continuation of management trends is expected to move them further towards that condition. The cottonwood-willow and shinnery oak PNVTs are within historical range of variation, although shinnery oak has more area in the early/mid-open seral stage and less in the late/closed stage and requires periodic introduction of planned fire. The shortgrass prairie and sand sagebrush PNVTs are also within the historical range of variation conditions.

Some of the PNVTs, while close to conditions within the historical range of variation (HRV) overall, may not be able to make a full recovery to the pre-European settlement range of conditions. These include the shinnery oak areas that were once deep plowed, as well as formerly cultivated old field sites in shortgrass prairie. Some areas within the mixed hardwood riparian and cottonwood-willow riparian PNVTs may not have the capacity to recover to within the HRV. The deep plowing practices on shinnery oak eliminated the species from some areas during the Dust Bowl era, and recovery does not readily occur. Soil movement that occurred during the Dust Bowl era also created conditions that facilitated mixed hardwood riparian establishment, a vegetation type not historically found on the Grasslands. Consequently there is not an appropriate reference condition for determining a departure from reference condition for mixed hardwood riparian. The cottonwood-willow PNVT may not be able fully return to HRV due to disruption to natural hydrologic processes on and off of the Grasslands. While returning to HRV conditions may not be fully achievable on some PNVT's, the continuation of select management practices should move those PNVTs toward HRV where possible.

Over the past several decades watershed conditions have dramatically improved, especially compared to the extremely degraded condition that occurred during the 1940s and 50s following the Dust Bowl era. Conservation practices across the southern Great Plains, and notably in the McClellan Creek drainage,

¹ "Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired nonnative vertebrate species in the planning area. For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area..... ." 36 CFR § 219.19 (1982)

² USDA Forest Service. 2008. Ecological Sustainability Report for the Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands, Appendix F.

have resulted in a substantial increase in infiltration and groundwater recharge and a subsequent reduction in surface runoff and associated sedimentation. Groundwater depletion is occurring and is outside of the agency's control and has the potential to affect Grasslands management.

Of the wildlife species identified as species at risk in plan development, plains leopard frog, Lesser Prairie-Chicken, black-tailed prairie dog, Mountain Plover and swift fox were assessed to be at high risk in cottonwood/willow riparian, shinnery oak, sand sagebrush, mixed grass prairie, and shortgrass prairie PNVTs. The risks to these species are based upon threats from habitat fragmentation, disease, predation, and invasive species³.

Ecosystem Diversity

The 1985 plan did not clearly and specifically address many of the concerns related to ecosystem restoration and maintenance specific to the Grasslands. The revised plan should provide direction that is more specific to the Grasslands in relation to ecosystem management:

- The vegetation types found on the National Grasslands are altered remnants of what were once found across the southern Great Plains. In the new plan, there is a need to provide management direction that will maintain or accelerate movement of vegetation types toward conditions within the historical range of variation (HRV), recognizing that past events may limit the ability to achieve full restoration.
- There are invasive plants present on the National Grasslands that have the potential to affect ecosystem structure, composition, and processes. Currently, there are no known invasive animals. The new plan needs to provide management direction addressing the unwelcome introduction, spread, and control of invasive plants and animals.
- The new plan needs to provide direction on anticipating and responding to changes in the climate, relative to National Grasslands management.
- During the new plan development, there may be a need to reevaluate and update the MIS list. MIS are species whose population trends could possibly indicate the effects of FS management activities.

Summary of the Analysis of Management Situation: Benchmarks

Benchmark analyses are one of the required components of the 1982 Planning Rule provisions pertaining to the AMS. Benchmark analyses define the range within which alternatives are to be developed and analyzed in an environmental impact statement (EIS) analysis by identifying the maximums and minimums that each alternative should fall within. Selection of benchmarks depends primarily on the topics to be addressed during new plan development.

All National Forests and Grasslands in the Southwestern Region developed benchmarks during development of their original plans. Benchmarks were established for timber resources, as well as for livestock grazing, recreation, wildlife, wilderness, and other key resources. They were evaluated for their physical and biological production potential, and monetary benchmarks were run for those resources having an established market value.

In the *1985 Final Environmental Impact Statement for the Cibola National Forest Plan* (the 1985 Plan), the Forest established 14 economic benchmarks to set a minimum and maximum range for outputs for the development of alternatives. These benchmarks were developed cumulatively for the mountain districts

³ *ibid.* p. 60

and the Grasslands. Of these 14, five do not apply to the National Grasslands, six need to be adjusted for the smaller geographic extent of the Grasslands alone, and three have been reviewed and deemed adequate to set the range of the alternatives that may be developed as part of Grasslands plan revision.

Benchmarks from the 1985 plan that have been determined to not apply to the National Grasslands are:

- Net Merchantable Timber Volume [Thousand cubic feet (MCF)] – There are no areas suitable for timber production on the Grasslands
- Net Sawtimber Value [Thousand Board Feet (MBF)] - There are no areas suitable for timber production on the Grasslands
- Long Term Sustained Yield Capacity [MCF] - There are no areas suitable for timber production on the Grasslands
- Wilderness Recreation [Thousand Recreation Visitor Days (MRVD)] – Currently, there are no designated wilderness areas on the National Grasslands.
- Water Yield [Acre Feet (ACFT)] – Water yield is more relevant to the mountain districts of the Cibola National Forest than the Grasslands because of the steeper topography of the mountain districts. Changes in management approach on the Grasslands are not likely to have a measureable effect on water yield and therefore, it is not a meaningful way to bound alternatives.

The following benchmarks have been reviewed, validated, and found appropriate to be carried forward from the 1985 Plan into this new Grasslands plan, because it is unlikely that an alternative would be developed that falls outside of their minimum and maximum values:

- Developed Recreation [MRVD]
- Grazing Capacity – Non-priced Output [Thousand Animal Unit Months (MAUM)]
- Permitted Livestock Use [MAUM]

Benchmarks that need to be modified from Forest-wide values to fit the Grasslands alone are:

- Dispersed Recreation [MRVD] – The minimum level benchmark for dispersed recreation far exceeds the number of recreation visitor days on the National Grasslands according to the 2005 National Visitor Use Monitoring surveys.⁴ Using the data in the survey, it was determined that the average duration of visit to the National Grasslands was 46.9 hours, and there were 56,600 visits estimated for 2005. Of those visits, approximately 50.6% percent were dispersed recreation. Therefore, there were approximately 111.9 MRVDs of dispersed recreation on the Grasslands (See calculation).

$(56,600 \text{ visits}) \times (46.9 \text{ hours}/12 \text{ hours}) = 221,211.7 \text{ Recreation Visitor Days}^5$

$(221,211.7 \text{ RVDs}) \times 50.6\% = 111,933 \text{ RVDs}$ or 111.9 MRVDs

Because there is good evidence that this number is realistic for the number of dispersed recreation visits to the Grasslands, it was selected as the minimum benchmark for the Grasslands. It is expected that there would be at least 109.3 MRVDs in future years because the year the data was collected had several

⁴ Even though the upper bound is very high it is not necessary to change it because all the alternatives developed will easily fall within it.

⁵ A recreation visitor day is a visit of 12 hours. So the average visitor to the Grasslands spends 3.9 RVDs but makes only one visit.

⁶ The percent age of visitors who used dispersed recreation sites according to the 2005 NVUM.

lengthy fire closures and a fire which burned over one of the most popular recreation sites on the Grasslands.

- Wildlife Recreation [MRVD] – Because there is not enough information to adjust this benchmark separately from dispersed recreation, it will be folded into the figures for dispersed recreation.
- Soil Loss [Thousand Tons (MTONS)]¹ – The minimum level benchmark given for soil loss of 2102.5 MTONs in the 1985 plan is too high for the Grasslands because it includes all the Cibola National Forest System lands (1,875,597 acres), of which the National Grasslands are only a portion (262,232 acres). Although the rate of soil loss implicit in the minimum benchmark is reasonable, the fact that it accounts for approximately seven times as many acres as exist on the Grasslands makes it too high to be used going forward. The minimum level soil loss benchmark was, therefore, adjusted as a proportion of the total acres of the Cibola National Forest to 294 MTONS on average per year (See Calculation).

$$(262,232 \text{ acres} / 1,875,597 \text{ acres}) \times 2102.5 \text{ MTONs} = 294.0 \text{ MTONs}$$

- Net Products Value, Firewood Sold and Personal Use (free) Firewood [MBF] – These three benchmarks in the 1985 Plan are not distinct in terms of outputs on the National Grasslands. The Grasslands therefore combined these into one Forest Products benchmark using the more contemporary measure of hundreds of cubic feet (CCF). The vegetation types that were included in the calculation of these benchmarks were the piñon-juniper stands on the Kiowa and Rita Blanca National Grasslands excluding the Inventoried Roadless Area, and black locust on the Black Kettle National Grasslands. These vegetation types are the only ones where harvest of forest products is expected to be used as a means of achieving plan goals.
- The maximum benchmark was calculated assuming that the average stand volume in black locust was 9.41 ccf/acre and that at most 1,000 acres would be treated for each of the first two 10-year time periods and 500 acres in the third time period. It was further assumed that most of the black locust would be removed over the cumulative 2,500 acres, with a few possible exceptions. This calculation resulted in an average annual output of 941 ccf for the first two periods and 470.5 ccf for the third period.

$$(9.41 \text{ ccf/acre}) \times (2,000 \text{ acres}) / 20 \text{ years} = 941 \text{ ccf}$$

$$(9.41 \text{ ccf/acre}) \times (500 \text{ acres}) / 10 \text{ years} = 470.5 \text{ ccf}$$

- For piñon-juniper, it was assumed that the average stand volume that would be removed by thinning would be 2.01 ccf/acre and that 2,500 acres would be treated every 10 years. This calculation resulted in an average annual output of 502.5 ccf.

$$(2.01 \text{ ccf/acre}) \times (2500 \text{ acres}) / 10 \text{ years} = 502.5 \text{ ccf}$$

The range of expected alternatives developed during Grasslands plan and EIS development should fall within the maximums and minimums established by the below benchmarks (See Table 1). If, in the process of alternative development, it is discovered that an alternative falls outside the range of the benchmarks, then the affected benchmark will need to be re-evaluated and re-established as necessary.

Table 1 Benchmarks for Grasslands Plan Revision - Average Annual Output

Type of Benchmark		Time Period ¹		
		2006-2015	2016-2025	2026-2035
Forest Products (CCF) ²	Max	1,443.5	1,443.5	973

Type of Benchmark		Time Period ^{/1}		
		2006-2015	2016-2025	2026-2035
	Min	0	0	0
Developed Recreation (MRVD) ^{/4}	Max	1,702.1	2,042.9	2,249.1
	Min	0	0	0
Grazing Capacity (MAUM) – Non-priced Output ^{/4}	Max	230.3	236.8	241.0
	Min	0	0	0
Permitted Livestock Use (MAUM) ^{/4}	Max	214.7	227.3	236.9
	Min	0	0	0
Dispersed Recreation (MRVD) ^{/3}	Max	939.0	1127.4	1281.1
	Min	111.9	111.9	111.9
Soil Loss (MTONS)	Max	5,643.4	5,676.8	5,717.2
	Min	294	294	294

1) The Time periods shown were established in the 1985 plan and were kept for this analysis.

2) This benchmark combines the original benchmarks of Net Products Value, Firewood Sold and Personal Use (free) Firewood.

3) This benchmark combines the original benchmarks of Dispersed Recreation, Wildlife Recreation and any potential Wilderness Recreation that may occur in an alternative when analyzed in an environmental impact statement.

4) These benchmarks are unchanged from our existing Forest Plan.

Summary of the Analysis of Management Situation: Projections of Demand

This is a summary of the projections of demand analysis required under the 1982 Planning Rule provisions. Projected future demand for forest resource-use was estimated using existing data and reports from federal, state, and forest-specific sources. This analysis is primarily a qualitative description of possible future resource demands.

Demand for grazing was not analyzed in the 2008 CER, and this analysis is necessary to meet the requirements for an AMS. The share of total demand for grazing within the market area (as measured by cattle inventory) that could be supported by these levels of permitted use on the Cibola National Forest and National Grasslands has ranged from a high of 3.6 percent in 1999 to a low of 1.8 percent occurring in 2004, 2006 and 2009. However, this does not consider effects on actual use due to factors such as drought, financial limitations on operators and market conditions. In addition, the supply of grazing is limited, and other resource considerations may limit grazing use in addition to these factors. While the share of total demand provided by the forest and grasslands is small, it may be more important for smaller areas within the market area. However, this trend is uncertain given the wide degree of variation in permitted use over the relatively short period examined. Despite these changes, the Forest Service's 2008 CER comes to the conclusion that there is no indication that there will be a major increase or decrease in grazing on the Grasslands over the next 20 years; however, cattle numbers and management strategies are expected to continue to fluctuate in response to drought, wildfire, prescribed fire, and other factors that change range conditions, such as prairie dog colonies (USDA 2008).

An analysis of the projected demand for recreation can be found on pp. 21-27 of the Socio-Economic Sustainability Evaluation Report for the Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands dated December 4, 2007 (http://www.fs.fed.us/r3/cibola/plan-revision/national_grasslands/social.shtml) This analysis has been reviewed and is sufficient to meet the requirements for the AMS.

There are no “Lands Suitable for Commercial Timber Production” on the National Grasslands. Since no supply exists on these units, it was not necessary to project demand for commercial timber.

Plan Components

Plan components (goals/desired conditions [hereinafter referred to as desired conditions]), objectives, suitability, guidelines, standards, monitoring, and special areas) are the guidance/direction/and decisions set forth by the plan to guide future projects. Non plan components (e.g., management approaches) are not guidance/direction, but rather our intent about how we might carry out (through collaboration, assessments, surveys, inventory, etc.) the guidance/direction encompassed within the plan components. Management approaches can describe the context, priorities, intent, risks and uncertainty, and expectations for future project consideration and implementation.

Desired Conditions: Desired conditions are statements of the social, economic, and ecological outcomes to be achieved in the future. These outcomes relate to land and resource conditions and ecological and social processes. They are aspirational and strategic in nature, versus being project-specific commitments. Some desired conditions may be achieved within the 15-year life of the plan, others may extend beyond. Desired conditions strive to paint a picture of the future Grasslands so that every reader, be they manager or user, understands the same message. Desired conditions form the principal basis from which objectives are developed. Desired Conditions ultimately serve to guide grassland managers in planning and providing direction for future actions and in developing a meaningful monitoring program to determine progress toward achievement over the life of the plan.

Objectives and Suitability:

Objectives are the proactive steps that the Grasslands expect to accomplish over the next 15 years to maintain or move toward the desired conditions of the plan. Objectives are measurable and time-specific outcomes. Any project or activity undertaken during the life of the plan must be consistent with objectives.

Variations in achieving objectives may take place during the next 15 years because of changes in environmental conditions, available budgets, catastrophic events and other factors unforeseen.

For some resources or goods and services that a resource provides, there may not be proactive and measurable management activity that is necessary to maintain or move toward a desired condition; thus, not every desired condition has a related objective. In such cases where no objectives are explicitly stated, no unique or additive objectives exist for that desired condition. However, every stated objective does relate to one or more desired conditions within the respective resource, good or service and geographic area.

Grasslands-wide objectives are applicable to the Kiowa, Rita Blanca, Black Kettle, and McClellan Creek National Grasslands. Those objectives applicable to a desired condition on one or more Grasslands, but not all, are so specified. The reader should note that when percentages are specified characterizing the areal extent of an objective, the percentage is intended to apply across the landscape and is not necessarily site-specific.

Suitability describes the appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences

and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices.

Guidelines, Standards, and Other Sources of Information

These criteria are applicable to project or activity design and execution on the Grasslands. They are sideboards for projects and activities to help achieve the desired conditions and objectives. Laws, regulations, and Forest Service directives are identified under other sources of information.

Guidelines contribute to maintaining or achieving desired conditions and objectives: they are specifications that a project or activity would adopt unless there is a compelling and defensible reason to vary from the guidelines. Such variances are only allowed without plan amendment if the alternative approach provided by the variance meets the intent of the plan guideline. If such a variance is considered appropriate, the Responsible Official records, in the project-level document, the reasons for that variance; no plan amendment is required. A project or activity must be consistent with guidelines.

A Standard is an absolute requirement to be met in the design of projects and activities. A project or activity is consistent with a standard when its design is in accord with the explicit provisions of the standard; variance from a standard in any way is not allowed.

In sum, a project or activity may meet the spirit, if not the letter, of a guideline, but must meet the letter of a standard.

Other Sources of Information includes existing law, regulation, Forest Service policy or direction and is important in designing projects and activities to achieve desired conditions. The relevant documents are available from Forest Service offices. Many are posted on the Cibola National Forest and Grasslands internet website.

Monitoring

Plan direction on monitoring and evaluation will provide a basis for a periodic determination and evaluation of the effects of management practices. More specifically, monitoring and evaluation elements of the plan will reveal how well objectives have been met and how closely management guidelines and standards have been applied. Based upon this evaluation, the Forest Supervisor may make changes in management direction, revisions, or amendments to the Grasslands plan as are deemed necessary.

Special Areas

Special areas are lands within the National Forest System that have been designated by Congress or by administrative action by a Responsible Official within USDA. These lands have unique or special characteristics. Examples relevant to the Grasslands are National Scenic Byways, a National Historic Trail and an Eligible Wild and Scenic River.

Organization of the Plan Document

The plan document is organized to address the many social, economic and ecologic resources, goods and services of the Grasslands and their companion desired conditions, objectives, guidelines (and in a few cases, standards) within several tiered, geographical scales. Plan components that apply to all plan areas and are referred to as “Grasslands-wide.” Following these broadly applicable plan components are ones that are unique to a specific management area (i.e., the Kiowa and Rita Blanca Management Area, the Black Kettle and McClellan Creek Management Area, the Mills Canyon Management Area, or the Special Areas Management Area). The reader should note that all desired conditions, objectives, guidelines and standards for the Kiowa and Rita Blanca Management Area apply to the Mills Canyon Management Area, in addition to the specific direction identified for Mills Canyon. The one National

Historic Trail, three Scenic Byways and one river segment eligible for Wild and Scenic River designation are grouped together as the Special Areas Management Area.

The reader may find reference maps helpful as an aid in understanding the revised plan. Appendix A contains geographic maps of vegetation types, management and special areas, and geographic, scenic integrity and recreation areas. Appendix B contains a list of proposed and probable actions that will likely take place on the Grasslands at the project or activity level to maintain existing conditions or move toward achievement of the desired conditions described in this plan. Appendix C presents disturbance factors and ecological processes referred to within the desired condition statements. Appendix D presents species legal status and at risk rankings. Appendix E presents a table of common and Latin names used in the document. Appendices F and G discuss areas of the Grasslands that are being considered for special area designation but no recommendation is being made at this time. Finally, Appendix H contains a glossary which provides definitions of words used within this document that may be unfamiliar to readers who are not technical specialists.