United States Department of Agriculture

Cibola National Forest and National Grasslands

Fiscal Year 2016 Monitoring and Evaluation Report

Forest Service Southwestern Region August 2019

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Forest Supervisor Certification

I certify that the 1985 Cibola National Forest Plan (Forest Plan) as amended is sufficient to guide future management of the Cibola National Forest Mountain Ranger Districts, until the plan revision process is completed.

I certify that the 2012 Kiowa, Rita Blanca, Black Kettle, and McClellan Creek National Grasslands Land and Resources Management Plan is sufficient to guide future management of these four national grasslands.

This Monitoring and Evaluation Report meets regulatory requirements for completing an annual report for the fiscal year of 2016, based on Section 219 of the 2012 planning rule provisions.

Steven Hattenbach, Forest Supervisor

8/6/2019
Date

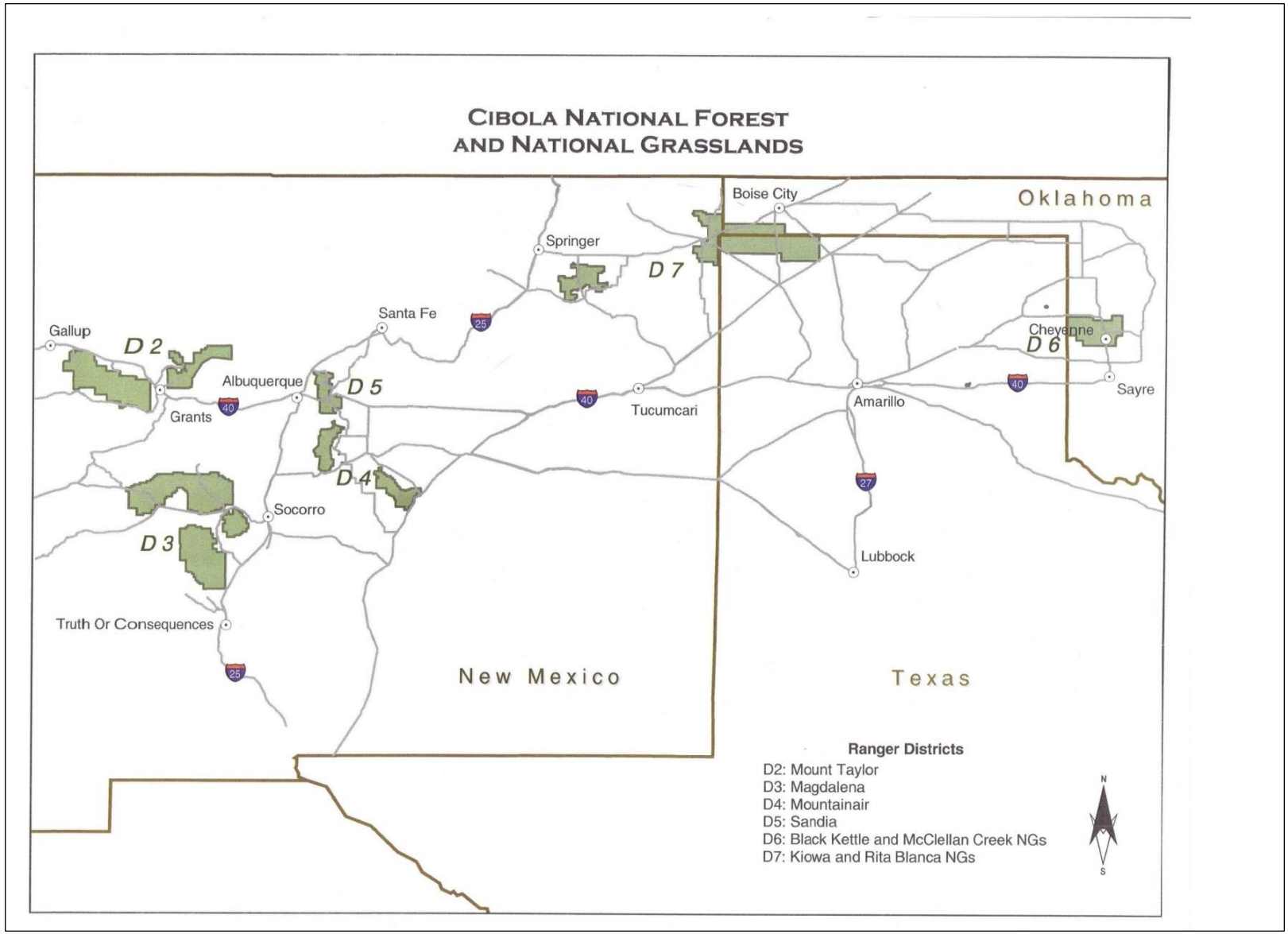

Figure 1. Cibola National Forest and National Grasslands and vicinity

Executive Summary

This monitoring and evaluation report for fiscal year 2016 (FY 2016) gives monitoring results for land and resource management activities important to achieving Forest-wide goals stated in the 1985 Cibola National Forest Land and Resource Management Plan (1985 Cibola Forest Plan) and grasslands-wide desired conditions stated in the 2012 Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands Plan (2012 Cibola Grasslands Plan). The monitoring elements and questions addressed in this report are on pages 199–229 of the 1985 Cibola Forest Plan and pages 113–125 of the 2012 Cibola Grasslands Plan.

The following is a synopsis of information found in Table 3 and Table 4. Monitoring results, and inferences where appropriate, are presented for cultural resources, engineering, fire, forestry, lands and land use, minerals, range, recreation, soils and water, wildlife, vegetation conditions and ecological indicators, and wildlife management indicator species. These results and inferences are relevant to future adaptive management.

Elements Monitored and Results under the 1985 Cibola Forest Plan for the Mountain Ranger Districts

Cultural Resources

Cultural resources monitoring in FY 2016 involved 13 heritage resource sites, determined as eligible for the National Register. Archeologists conducted 66 surveys for section 106 clearances and documented 37 sites.

Engineering

No new roads were constructed, and 9 miles of existing system roads were reconstructed in FY 2016. Approximately 347 miles of Forest Service system roads were maintained Forest-wide, and 9 miles of roads were decommissioned. Overall, Forest road conditions continued to deteriorate. Reductions in funding have prevented adequate maintenance, road improvement, and road decommissioning.

Fire Monitoring

Fire and fuels staff conducted and monitored 7 prescribed burns on the Cibola National Forest totaling approximately 991 acres in FY 2016. 90 wildfires burned about 49,703 acres in FY 2016 on the Cibola NF & NG. A bulk of those acres were the North and Doghead fires. The Magdalena Ranger District was able to capitalize on weather and fuel conditions and manage the Red Canyon Fire for resource benefit. The Red Canyon fire was an excellent example of fire managers returning fire to an ecosystem that was greatly departed from its natural range of variability. The fire burned in a mosaic pattern that met resource objectives across the board.

Forestry

Forestry staff monitored compliance with silvicultural prescriptions, including post-treatment basal areas, canopy cover, stand densities, snag retention, and implementation of mitigation measures in small timber sales, stewardship agreements and personal-use firewood programs. Monitoring allowed District staff to make area wide designations for personal-use firewood in Magdalena Ranger District and to make length-of-season adjustments in personal-use firewood in Mount Taylor Ranger District, Magdalena Ranger District, and Mountainair Ranger District.

Timely inspections were key to implementing "designation-by-description" silvicultural prescriptions on collaborative forest restoration projects (CFRP) and service projects in the Mountain Districts. District and contract marking crews marked and prepared approximately 2,000 acres for treatment across the forest.

District Foresters and the Silviculturist used ground sampling and aerial photos to monitor forest health, insect and disease damage.

Over 90% of the fir engraver activity mapped on the Cibola National Forest was on the Sandia Mountains where widespread mortality of white fir is occurring on the eastern slopes. White fir mortality has been occurring across the Sandia Mountains for at least the past 5 years Sandia District, where developed recreation sites experienced continued tree mortality, mostly white fir. Douglas-fir tussock moth activity on the Sandia Mountains also continued in FY 2016, affecting primarily white fir. Much of the detected insect and disease damage has occurred in wilderness areas or on steep, inaccessible slopes. Western spruce budworm and aspen defoliation are occurring primarily on the Mount Taylor Ranger District. A study analyzing the effectiveness of a commercially available insect pheromone "interruptant" to prevent attack from Douglas-fir bark beetles on individual trees and in actively infested forest stands was initiated on the Magdalena Ranger District in FY 2016.

Forest fire and fuels crews helped fall hazard trees at all developed recreation sites prior to the Spring opening of Mount Taylor, Magdalena, Mountainair, and Sandia recreation sites. Staff used hazard tree removal as training and coordinated with the wildlife staff on the timing of tree cutting to reduce the impact on cavity nesters. Fuelwood permittees and forest crews bucked fallen trees and carried them to parking areas for removal.

Forestry staff monitored commercial and personal-use fuelwood areas for compliance with permits and contract requirements. Wood theft, timber trespass, and incomplete compliance with closure orders continued to occur. Resource damage occurred in areas in the Mount Taylor, Magdalena, and Mountainair ranger districts. Due to the lack of sufficient funding and lack of Forest Protection and Law Enforcement Officers, the Forest continues to use the load ticket system and NEPA-designated fuelwood areas Forest-wide.

The Forest did not utilize the silvicultural practices of overstory or final removal harvesting, perform reforestation, or restocking of regeneration harvests during FY 2016. Forestry staff accomplished timber stand improvement, hazardous fuel reduction, and commercial harvesting activities on over 4,561 acres in FY 2016. Some of these acres utilized cut/skid/deck treatments, which yarded merchantable timber to roadsides for public fuelwood gathering. Cunits (CCF or one-hundred cubic feet) of net sawtimber and fuelwood sold was 15,947 CCF in FY 2016.

The Forest also continued forest restoration treatments to restore forest resiliency in the Zuni Mountain Collaborative Forest Landscape Restoration Project (CFLRP) and the Isleta Joint Chief's Project. Approximately 3,050 acres of uneven-aged group selection and commercial harvesting were completed on the ground in the Zuni Mountains Collaborative Forest Landscape Restoration Project (CFLRP) on the Mount Taylor Ranger District and will be reported as "accomplished" when treatment units are completed and accepted. Additionally, another 750 acres of forest restoration and thinning treatments were completed on the Sandia and Mountainair Ranger Districts.

Land and Land Use

Lands staff continued to review desirable land acquisitions Forest-wide and monitor right-of-way (ROW) acquisition through non-Forest Service inholdings. Property surveys identified property boundaries.

Staff addressed boundary line issues and notified individuals of encroachments. Staff worked with non-Forest Service property owners to provide an understanding of Forest goals and management activities and their effects. The purchases of Tampico Springs I and II with a Land and Water Conservation Fund contribution helped the Forest Service to preserve key pieces of land from future development and eliminated easements in that area. Through travel management analyses, staff also identified ROW needs and explored ROW opportunities. Overall, staff looked at the effects of management practices conducted on adjacent non-Forest Service lands on the goals of the Forest Plan.

Land use staff continued monitoring for NEPA compliance with authorization reissue and application processing for several expired authorizations. Staff also issued three new authorizations, one for an oil and gas pipeline and two for communication sites.

Range

Range monitoring continue to indicate the effects of long term drought as the primary reason for reduced stocking rates. Stocking rates for the FY 2016 grazing year on the mountain units were 23% below permitted, a five percent increase from the FY 2015 grazing year, however not a significant difference.

On the Grassland Units stocking rates were also very conservative. The stocking rate for grazing year 2016 was 16% below permitted on the Black Kettle, and 72% below permitted on the Kiowa/Rita Blanca grasslands. However on the KRB authorized use may be under reported due to actual use credits.

Very dry conditions were observed between the reporting periods from January 2015 to December 30, 2015 within the Central Highlands Division which encompasses 2 out of the 4 Mountain Units including Sandia, and Mountainair. The Southwestern Plateau Division which encompasses the majority of the Mount Taylor and Magdalena Ranger Districts also recorded very dry conditions for the same period. The Standardized Precipitation Index (SPI) at the end of the reporting period (December 30) for the Central Highland Division was - 1.52 and -1.29 for the Southwestern Mountains.

For the Grasslands, the Northeastern Plains Division recorded very dry conditions with an ending SPI of -1.44 encompassing the majority of the Kiowa Grasslands and -1.22 on the TX-High Plains Division encompassing the Rita Blanca Grasslands. On the Black Kettle for the reporting period ending on December 30, 2015 the SPI on the OK-West Central Division was -1.29.

The Standardized Precipitation Index (SPI) is a unit of measure that compares recent precipitation values for a period of interest with long term historical values to assess moisture conditions in a given area. In the Southwestern Region, anytime the SPI reaches a value of minus 1.00 or less for the preceding 12 month period, grazing allotments should be evaluated for existing drought conditions.

Reductions in livestock numbers and or season of use were generally the result of voluntary efforts from livestock permittees resulting in minimal permittee compliance. Annual planning, and proactive measures by the Cibola National Forest and National Grasslands to communicate ongoing drought issues early in the grazing season allowed permittees to adjust prior to the peak of the grazing season. Adaptive management processes outlined in grazing NEPA and Allotment Management Plans are carried forward to the Annual Operating Instructions (AOI), which outline specific grazing strategies for the year. All allotments monitored for the 2015 grazing year were in compliance with the AOI's. Range conditions overall remained static, however increased production and vigor were noted at the end of the growing season.

NEPA was completed for all 86 allotments on the Mount Taylor, Magdalena, and Mountainair Ranger Districts, however many of these documents are now over 15 to 20 years old with Section 18 reviews completed on a minimum of these allotments.

On the Mountain Units two pastures within two allotments were administered to standard, and on the Grasslands Units 38 pastures within 38 allotments were administered to standard all exclusively on the Kiowa/Rita Blanca grasslands.. Administered to standard includes the following metrics:

RG-GZ-ADM-STD: Because the AOI tiers to the AMP, which tiers to the NEPA, which tiers to the Forest Plan, we will use the AOI as the basis for administering allotments to standard. For example, the AOI includes special monitoring needs and the presence of T&E species. It also includes stubble height and pasture rotations; thus, "administered to standard" can include more that monitoring – it can include anything in the AOI. Before any acres can be entered into INFRA as having been "administered to standard" in accomplishment reporting, the following must be met: 1. the monitoring, inspections, or other work in the pasture must have been completed by a qualified range person. A "qualified range person" is supervised or overseen by the range staff and performs work to industry standards. 2. The monitoring, inspections, or other work in the pasture must meet the specifications in the AOI. 3. Written documentation of the monitoring, inspection, or work must be in at least one of the following locations: 2210, 2230, or 2240 files or INFRA. 4. Administered to standard includes corrective actions taken that year or the following AOI year. It is important to note that for accomplishment reporting, "Administered to standard" constitutes the four points above. Whether the pasture is in compliance with the AOI is not part of "administered to standard". The condition of the pasture is separate from the process of administering the pasture.

Coordinated Resource Management Planning continues to be a major focus for selected grazing allotments. This effort involves multi agency coordination to achieve objectives and desired conditions on an allotment basis. The basis for this effort is described in detail in the "Memorandum of Understanding between the USDA, Natural Resources Conservations Service Arizona State Office (NRCS – AZ), New Mexico State Office (NRCS – NM) and the USDA, Forest Service Southwestern Region" executed in 2013.

New range improvements continue to progress, however delays as a result of budgetary constraints along with deferred heritage backlog remain issues.

Recreation

The Recreation Program increasingly depends on volunteers and youth corps organizations to accomplish trail construction, reconstruction, and maintenance. We continue to improve capabilities for accomplishing trail work by collaborating with other New Mexico forests and by taking advantage of grant opportunities, especially those that provide opportunities and benefit youth and veterans.

Our biggest challenge to improve the condition of recreation facilities is the short window of opportunity to award contracts for the purchase and installation of facilities, such as vault toilets, and to make improvement to existing structures. The recreation program is working toward having project plans "on the shelf," so that the acquisition process can be initiated as soon as final appropriated funds are available.

Soil and Water

Watershed Condition Assessment

The Cibola National Forest rated watersheds with more than 10% within National Forest System Lands using the Watershed Condition Framework (USDA FS, FS-977, May 2011). This was done at the 12-digit hydrologic unit code (HUC) scale, also known as 6th code sub-watersheds. These watersheds are 10,000-40,000 acres in size.

- 161 watersheds rated as 'good' meaning the watershed processes are functioning properly.

- 50 watersheds rated as 'fair' meaning the watershed is functioning at risk
- 1 watershed rated as 'poor' meaning the watershed is not functioning properly.

Two priority watersheds have been identified, Bluewater and Las Huertas. A watershed improvement action plan (WRAP) is in progress for the Las Huertas watershed. A WRAP was completed for the Bluewater priority watershed in 2011. Many of the essential projects identified in the Bluewater WRAP have been implemented. The implemented projects are part of the Bluewater Ecosystem Management Project. Additional projects are being planned and scheduled such as fencing, cattle guard replacement, road work, and invasive weed treatments.

Spring Inventory and Assessment

Springs on the Cibola National Forest and National Grasslands are a valuable, but limited resource. Springs provide water to an otherwise dry landscape. Inventory of springs across the Cibola National Forest and National Grasslands was initiated in 2010 through an agreement with the University of New Mexico using established protocols. Currently, there are over 500 springs on the Cibola as identified using available GIS data and updated inventory information. While this number may seem large, these springs are located across 1.9 million acres on six ranger districts in New Mexico, Oklahoma and Texas. Many of these springs are associated with stream channels. More than half of these springs have been developed for drinking water, wildlife, and livestock use. Others have been impacted by adjacent wells. When springs are developed or nearby groundwater is pumped, the spring and associated stream ecosystem is often impacted.

In 2015, a new agreement with the University of New Mexico was initiated to inventory springs across the forest and grasslands. This work continued the spring inventory work. This inventory provides basic information about springs and their associated surface and ground waters, using protocols developed by the U.S. Forest Service and the Spring Stewardship Institute. Location, flow, chemistry and management status are some of the attributes collected. During the first five year agreement with UNM, over 100 springs were inventoried for characteristics and condition. A report of results was produced in FY 2016. Results indicate that many spring are largely recharged by the snow pack. In addition, a large number of springs are seasonal, drying up during the summer months.

Watershed Improvement Projects

Opportunities for watershed improvement are being identified through an integrated approach. Wildlife, range, recreation, engineering, and vegetation management work together to identify and implement projects that will result in improvement to all resources, including soil and water. Vegetation management projects provide the opportunity to improve soil condition where woody material and/or ground cover are lacking. Wildlife is communicating with watershed resources to improve riparian and watershed conditions for both resources. Recreational uses provide opportunities to improve watershed condition by re-routing trails away from surface waters. Range is working with watershed to improve springs where these features are used as water sources for livestock. Engineering provides assistance with improving roads or trails, and as needed, removal, to reduce impacts to water resources. In 2015, .21 miles were reported as obliterated on the Mount Taylor Ranger District. By combining resources, 6500 acres of watershed were improved in FY 2016 on the Mountain Ranger Districts, largely through integration with wildlife and vegetation programs. This includes 1.5 acres of riparian restoration in the San Mateo Mountains and soil improvements through targeted vegetation management.

Best Management Practices (BMPs)

The effectiveness and implementation of BMPs are monitored using the process described in the USDA Forest Service publication, National Best Management Practices for Water Quality Management on

National Forest System Lands, Volume 1: National Core BMP Technical Guide (2012, FS-890a). BMP results from the last few years were summarized. This information showed the need to improve the implementation of BMP as described in NEPA documents. When implemented, BMPs were effective most of the time with limited impacts to water resource features.

Wildlife

Results for wildlife monitoring elements of the 1985 Cibola Forest Plan Mountain Ranger Districts only are as follows. The North Fire was managed for multiple objectives in order to restore fire to the fire-adapted ecosystems. The North Fire originated from a lightning strike May 22, 2015and managed until July 2, 2015 and eventually encompassed 42,102 acres. Forty wildlife waters were visited and accessed. The 900 gallon fiberglass saucer guzzler at Puertecito was replaced with a 3,500 gallon metal umbrella trick tank.

For threatened, endangered, and sensitive species monitoring pertaining to the sensitive species northern goshawk on the Mount Taylor Ranger District, one post-family fledging area (PFA) in the Zuni Mountains was monitored. Surveys for northern goshawks were conducted on the Magdalena Ranger District on 1,126 acres, encompassing 608 acres on Durfee-Bolander and 518 acres in Hop-Patterson. Of the five post-fledging family areas on Mountainair RD, in two sites a pair was detected, one site had a pair and one fledgling confirmed. On the Sandia Ranger District, one PFA was monitored and had an active nest, one fledging was detected.

For the threatened Mexican spotted owl, on the Mount Taylor Ranger District the Bird Conservancy of the Rockies (formerly Rocky Mountain Bird Observatory, RMBO) monitored one Mexican spotted owl protected activity center (PAC), but had no detections. Enterprise monitored the Foster PAC and detected occupancy, reproduction was unknown. Hogback PAC was monitored however, there were no detections. In FY 2016, 5,412 acres were surveyed for Mexican spotted owls on the Magdalena District. On the Magdalena Ranger District, three areas were surveyed for Mexican spotted owls on 4,230 acres of suitable habitat. The project areas surveyed were Limetop, Reflection and Parkside Units in the Baney Project Area, and Tia in the Fisher Project Area. Only the suitable habitat within a half-mile of the project or unit boundaries was surveyed. Nineteen PACs were informally monitored; five of these were adjacent to project survey areas. Two new PACs (030338, 030339) were confirmed and delineated. There was one incidental observation reported. Rocky Mountain Bird Observatory (RMBO) had responses at seven of the twelve plots they were monitoring for the population study. Thirteen pair, 2 single male and 1 single female observed by Forest Service personnel. There was no response at 3 PACs. Nesting was never confirmed, however eight fledglings were confirmed. Bird Conservancy of the Rockies (formerly Rocky Mountain Bird Observatory RMBO) had responses at six of the twelve sites on Magdalena. Four protected activity centers monitored in Mountainair and Sandia ranger districts had one female owl detected.

For the endangered southwestern willow fly catcher, two potential habitats were not monitored, one each on Mount Taylor and Mountainair ranger districts.

There are no known federally endangered Aplomado falcon territories on the Mountain Ranger Districts.

For the sensitive species peregrine falcon, no formal monitoring was conducted in FY 2016.

Persistence of the endangered Zuni bluehead sucker was confirmed in the Aqua Remora on the Mount Taylor Ranger District, the only occurrence on the Mountain Ranger Districts.

For the federally threatened Zuni fleabane plant, no monitoring was conducted in FY 2016.

For non-game management indicator species, the juniper titmouse's statewide population trend is down, but Cibola habitat trend is stable. The pygmy nuthatch's statewide population trend is up, and the Cibola habitat trend is stable. For the hairy woodpecker, statewide population trend is stable, and the Cibola habitat trend is stable. The red-breasted nuthatch statewide population trend is stable, and the Cibola habitat trend is stable.

For game-management indicator species, the elk population trend on the Mountain Ranger Districts rose. The mule deer population trend on the Mountain Ranger Districts is downward. Black bear populations appeared to be stable on the Mountain Ranger Districts. Population numbers are expected to increase in the future for the Rio Grande turkey, indicating an upward population trend on the Mountain Ranger Districts.

The Manzanos HawkWatch standard season runs 28 August—31 October; in FY 2016 observers counted on 68 days during this period for a total of 545 hours. A total of 2,747 migrating raptors representing 16 species were counted in FY 2016, this total is lower than the site's long-term average. The Manzano Mountains HawkWatch crew counted 2,747 total birds at a passage rate of 503 raptors per 100 hours of observation in 2016, both significantly below site average and the second lowest ever for the site They observed below average counts and passage rates for Turkey Vultures, Ospreys and Northern Harriers. During the season, a total of 456 individuals visited the site, primarily from New Mexico. Visitors also traveled from Arizona, California, Florida, Illinois, Massachusetts, Tennessee, Texas, and Vermont. Rio Grande Bird Research (RGBR) also banded neo-tropical migrant bird species at Capilla Peak on the Mountainair Ranger District during the fall of 2016, as well as banded rosy finches on the Sandia Ranger District during the winter of FY 2016.

Monitoring Questions and Findings under the 2012 Kiowa, Rita Blanca, Black Kettle, and McClellan Creek Land and Resource Management Plan

This section of this report presents fiscal year (FY) 2016 monitoring results of land and resource management activities important to achieving Grasslands wide and management-area-specific plan direction stated in the 2012 Kiowa, Rita Blanca, Black Kettle, and McClellan Creek National Grasslands (Cibola Grasslands) Land and Resource Management Plan. The annual monitoring elements addressed by this report are presented on pages 113–126 of the 2012 Cibola Grasslands Plan. This section summarizes information presented in Table 3 and Table 4 of this report. Monitoring results and inferences, where appropriate, are presented for recreation, vegetation conditions, and wildlife management indicator species. These results and inferences are relevant to future adaptive management.

Developed Recreation

Condition surveys are required to be conducted on developed recreation sites in a 5-year cycle; FY16 is year 4 of the current cycle. Results for developed recreation monitoring are that condition surveys/inventories were conducted on 100% percent of developed recreation sites on the Kiowa and Rita Blanca Management Area and 90% percent on the Black Kettle and McClellan Creek Management Area. Six out of 7 developed sites met national standards on the Kiowa and Rita Blanca Management Area, and 21 out of 29 developed sites met national standards on the Black Kettle and McClellan Creek Management Area. On the Kiowa and Rita Blanca Management Area, ¼ mile of user created roads was decommissioned through the installation of barriers, North of Mills Lower Campground. Completing deferred maintenance on developed recreation facilities continues to be hampered because of limited program funds and the difficulty of attracting qualified contractors.

Ecological Indicators

For the Mixed Grass Prairie ecological indicator on the Black Kettle and McClellan Creek and the Shinnery Oak and Deep Plowed Inclusion ecological indicator on the Black Kettle were not monitored this period.

The following ecological indicators are not required for FY16:

- Shortgrass Prairie Mid and Late Successional Stages Landscape (Range Vegetation Trend Monitoring)
- Sand Sagebrush on Kiowa and Rita Blanca Management Area Landscape (Range Vegetation Trend Monitoring)
- Cottonwood-willow (Canadian River) (presence of undesirable trees) within the Kiowa and Mills Canyon Management Areas

Management Indicator Species

The Rio Grande turkey is a management indicator species for mixed riparian hardwood vegetation on the Black Kettle National Grassland. In 2015 the Black Kettle conducted Rio Grande Turkey surveys in Oklahoma utilizing 6 surveys route and 54 survey points. On survey routes 1-5 two replications were completed with alternating starting and finishing points. Only one replication was completed for survey route number six. Out of 106 lines of data, 28 reported observations of Rio Grande Turkey. Winter Rio Grande Turkey flock counts reported by Oklahoma Department of Wildlife Conservation report a steady population with 2000 birds being record which was the same as FY 15. Overall, in regions that include the Kiowa and Rita Blanca National Grasslands, the population is increasing.

Management Indicator Species monitoring reporting for the Kiowa and Rita Blanca National Grasslands is as follows:

Western Bluebird

The western bluebird is the management indicator species in pinyon juniper and juniper grassland on the Kiowa National Grassland. It was detected by the Bird Conservancy of the Rockies (Formerly Rocky Mountain Bird Observatory) on the Kiowa National Grassland intermittently from 2009 – 2015, but unfortunately the routes were not completed in FY 2016. The Breeding Bird Survey (BBS) data for FY 2016 for the two routes nearest the Kiowa National Grassland (Farley and Grenville routes) did not detect Western Bluebirds – but they usually do not. No trend estimates regarding the status of the species can be made from these available data.

Burrowing Owl

The western burrowing owl is a management indicator species for the shortgrass prairie early successional stage on the Kiowa and Rita Blanca Management Area. Recent monitoring effort on the Kiowa National Grassland by BCR in FY 2016 did not detect any burrowing owls. Burrowing owls were detected intermittently in the Eastern part of the Kiowa National Grassland from 2009 - 2015. On the Rita Blanca National Grassland, BCR surveys in 2016 also did not detect any burrowing owls. Burrowing owls were detected intermittently in the Rita Blanca National Grassland from 2009 – 2015, so these numbers are within the normal expected range.
All USGS Breeding bird surveys (BBS) near the Kiowa and Rita Blanca National Grasslands were conducted in FY 2016 (Table 2), and all four routes detected Burrowing Owls. The Felt, Oklahoma BBS route had it's highest count of Burrowing Owl detections in recent years, and the Texline route also

detected a large amount of Burrowing owls. The Grenville, New Mexico route had its highest burrowing owl detections in recent years in 2016 with 10, and Farley's count dipped in 2016, at 5.

Table 1. USGS Breeding Bird Survey Results for Burrowing Owls

BBS route name	State	Associated National Grassland	2014	2015	2016
Grenville	NM	Kiowa	3	4	10
Farley	NM	Kiowa	0	11	5
Texline	TX	Rita Blanca	-	-	16
Felt	OK	Rita Blanca	2	9	13

Because of the limited about of local data, the long-term BBS data for the shortgrass prairie Bird Conservation Region (BCR) was used for analysis. These only include data up to 2015, but the trends are informative for management purposes. Overall, there is no significant direction of population change from 2005 - 2015. This indicates a stable population.

1985 Cibola Forest Plan (Mountain Ranger Districts only) Background and Amendments

The 1985 Cibola Forest plan and associated EIS were published in 1985. After 1985, the following amendments listed in Table 2 were made to the 1985 Forest Plan. The 1985 Cibola Forest Plan as amended remains in effect until a current forest plan revision effort underway is completed under the 2012 National Forest System Land Management Planning Rule. That revision effort is anticipated to be completed by spring 2020.

Table 2. Amendment history to the 1985 Cibola Forest Plan

Amendment Number	Decision Date	Amendment Description
Amendment #1	01/09/87	Clarified language throughout all five chapters
Amendment #2	05/25/89	Added electronic site near Boise City, Oklahoma, for the Coast Guard's Long-Range Aid to Navigation (LORAN-C)
Amendment #3	06/30/89	Changed timber projections based on projects in Las Huertas Canyon near Placitas, New Mexico
Amendment #4	05/29/90	Revised the ten-year timber sale schedule, amended fire management standards and guidelines, added black bear and curlew to the MIS (management indicator species) list, and changed recreation opportunity spectrum for management areas 8 and 13
Amendment #5	06/27/90	Designated Oso Ridge Lookout as an electronic site
Amendment #6	09/06/91	Established standards and guidelines for capital investment priorities and Sandia winter use; added the grasshopper sparrow to the MIS list and established standards and guidelines for Abert's squirrel
Amendment #7	09/09/96	Added regional direction for management of Mexican spotted owl, northern goshawk, grazing and old growth
Amendment #8	12/20/96	Returned Federal lands near Kirkland Air Force Base from Department of Energy back to the National Forest System
Amendment #9	09/18/97	Established Bernalillo Watershed Research Natural Area
Amendment #10	10/17/02	Identified eligible wild and scenic rivers and added direction for protecting their values
Amendment #11	07/10/08	Changes to Sandia Ranger District direction required by travel management decision
Amendment #12	08/26/08	Changes to Grasslands Management Areas 4 and 5 oil and gas leasing stipulations
Amendment #13	05/07/12	Travel management on the Mountainair Ranger District
Amendment #14	06/19/12	Deleted plan standards related to Casa Loma summer homes, Sandia Ranger District
Amendment #15	04/14/11	Travel management on the Mount Taylor Ranger District

FY 2016 Monitoring Results under the 1985 Cibola Forest Plan for Mountain Ranger Districts Only

Table 3. FY 2016 monitoring results by program area (1985 Cibola Forest Plan for Mountain Ranger Districts only)

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
Cultural Resources					
Cultural Resources	Cultural resources listed in or eligible to the National Register of Historic Places: 13	Supervisor's Office	All	Twenty-two new-determination, heritage resource sites were determined eligible to the National Register.	Total number of sites documented in FY 2016 was 37.
Cultural Resources	Clearance surveys for cultural resources: 66	Supervisor's Office	All	8 surveys, totaling 825 acres for section 106 clearances.	Total acres cleared for undertakings based on previous and new surveys were 837 acres.
Engineering and Facilities					
EF1	Miles of road construction/reconstruction	Work accomplishment records (local drive)	Mount Taylor Magdalena Sandia	Spot gravel placement and storm damage repairs make up the 9 reconstruction miles.	Limited budgets necessitated prioritizing safety mitigations, resource damage, and restoration project areas for reconstruction efforts.
EF2	Miles of level 3, 4, and 5 road maintenance	Work accomplishment records (local drive)	Mount Taylor Magdalena Mountainair Sandia Black Kettle and McClellan Creek National Grasslands	Roughly 347 miles of passenger car roads were maintained throughout the Forest, which included surface maintenance and drainage structure maintenance.	Although targets were met, a large amount of road mileage was not maintained due to reduced or stagnant budgets; lack of maintenance means further deterioration of road infrastructure.

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
EF3	Miles of road obliterated	Work accomplishment records (local drive)	Mount Taylor	9 miles of unauthorized road were obliterated to improve resource condition in the area.	Although targets were met, a large amount of unauthorized road mileage was not obliterated due to reduced or stagnant budgets; failure to obliterate these roads will allow further deterioration of resource condition.
Fire					
Broadcast Burning (covers a majority of the unit)	Broadcast burning	District files	Mount Taylor	190	
Resource Benefit Managed Wildfire	Change of Natural Fuels Wildfire	District files	Magdalena	42,208	
Burning of Piled Material	Burning of piled material	District files	Sandia	41	
Broadcast Burning (covers a majority of the unit)	Broadcast Burning	District files	Black Kettle	760	
Forestry					
Forestry	Monitored compliance with silvicultural prescriptions, including post-treatment basal areas, canopy cover, stand densities, snag retention, and implementation of mitigation measures in timber sale, in personal use firewood programs, and in CFRP	Forestry records located in individual District project files and at Supervisor's Office	Mount Taylor Magdalena Mount Taylor Mountainair Sandia Supervisor's Office	Inspections indicated compliance.	Timely inspections are key to achieving desired results when implementing; Designation by Description on Collaborative Forest Restoration Projects and service contracts in pinyon-juniper stands (Mount Taylor, Magdalena, Mountainair, Sandia). Monitoring has allowed the districts to make length of season

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
	thinning grants administered in FY 2016.				adjustments in personal-use firewood (Mount Taylor, Magdalena, Mountainair). Monitoring has also allowed districts to make area-wide designations for personal-use firewood (Magdalena). Desired results are also achieved through interaction and collaboration with grant partners (Mount Taylor, Magdalena, Mountainair).
Forestry	Monitored for insect and disease damage to forest stands through aerial photos and ground sampling by district foresters and silviculturists; monitored for insect activity within active timber sales and thinning projects in Mount Taylor, Magdalena, Mountainair, and Sandia	Forestry files	Mount Taylor Magdalena Mountainair Sandia	Sandia Mountains accounted for the majority of the fir engraver damage in New Mexico in 2015. This concentrated area has been particularly affected the past couple of years. Douglas-fir tussock moth activity on the Sanidas also continued in 2015. Western spruce budworm and aspen defoliation occurred primarily on the Mount Taylor RD. In 2015 a new study analyzing the effectiveness of an insect pheromone “interruptant” was initiated on the Magdalena RD.	On-going forest restoration projects located across the Cibola National Forest created conditions that are more resilient to disturbances such as insect and disease outbreaks.
Forestry	Monitored for hazard trees at all developed recreation sites	District recreation files	Forest-wide	There is continued mortality, mostly of white fir, in the Sandia District’s developed recreation sites in Sandia.	Forest fire/fuels crews helped fell hazard trees and provided new training opportunities or refreshers for sawyers. Staff coordinated with wildlife on the timing of hazard tree removal to reduce the impact on cavity nesters. Although the Fall is

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					the best time of the year for tree removal, hazard trees are typically felled in the spring prior to opening up recreation sites in Mount Taylor, Magdalena, Mountainair, and Sandia. Bucking of fallen trees is unnecessary to ensure removal, because permittees buck and remove them.
Forestry	Monitored commercial and personal-use fuelwood areas for compliance with permits and contract requirements	District forestry files	Forest-wide	Wood theft and timber trespass continued; compliance with closure orders was not always adhered to.	Due to lack of forest protection officers and law enforcement officers, the Forest has moved to load ticket system and NEPA-designated fuelwood areas Forest-wide. Law enforcement is insufficient in Mount Taylor, Magdalena and Mountainair. There continues to be inadequate funding of the forest protection officers program for Mount Taylor, Magdalena and Mountainair. Resource damage occurred with little, if any, repercussion. Law enforcement is insufficient in those areas incurring resource damage (particularly in Mount Taylor, Magdalena and Mountainair.
Forestry	Acres of overstory and final removal harvest	FACTS	Forest-wide	In FY2016, the Forest did not use this silvicultural practice.	
Forestry	Acres of intermediate harvest (Commercial Thinning and Thinning for Hazardous Fuels Reduction)	FACTS	Forest-wide	In FY 2016, the Forest accomplished 4,561 acres of this harvest system.	

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
Forestry	Acres in need of reforestation	FACTS	Forest-wide	Zero acres were in need of reforestation in FY 2016.	
Forestry	Timber Stand Improvement acres	FACTS	Forest-wide	In FY16 the Forest accomplished over 1,83 acres of TSI;	Some of these acres utilized cut/skid/deck treatments, where merchantable material was yarded to roadsides and made available for public fuelwood gathering.
Forestry	CCF of net sawtimber and fuelwood sold	PTSAR	Forest-wide	15,947.3 CCF were sold in FY16.	
Forestry	Adequate restocking of regeneration harvest	FACTS	Forest-wide	0 acres in FY2016.	
Forestry	Stands and acres of forest lands identified and tracked in FSVeg-Common Stand Exams	FSVeg; Stand Exam Contracts at Supervisor's Office and Mount Taylor	Forest-wide	No new stands were examined in FY 2016.	
Lands					
Lands	Monitoring of right-of-way (ROW) acquisition through non-Forest Service inholdings	Supervisor's Office	Forest-wide	Easements were eliminated with the purchase of Tampico Springs in Mount Taylor.	Through travel management analyses, ROW needs were identified and opportunities were explored.
Lands	Effect of goals, objectives and management activities of the Forest on adjacent, non-Forest Service lands	Supervisor's Office	Forest-wide	Continued to identify property boundaries through property surveys; worked with non-Forest Service property owners to provide an understanding of Forest goals. The purchase of Tampico Springs I & II with LWCF contribution helped the Forest	Continued to peruse opportunistic and desirable land acquisitions.

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
				Service preserve key pieces of land from future development.	
Lands	Effect of management practices conducted on adjacent non-Forest Service lands on goals and objectives of the Forest Plan	Supervisor's Office	Forest-wide	Continued to address boundary line issues and notification of individuals involved in encroachments.	Continued to monitor, assess and take advantage of opportunities, as they become available.
Non-recreation, Special Use Authorizations					
Lands (Special Use Authorizations)	Monitoring for compliance with authorization terms and conditions	Supervisor's Office/Districts	Forest-wide	Issued three new special use authorizations, one for an oil and gas pipeline and two for communication sites.	Monitoring continues for NEPA compliance with authorization reissue and application processing.
Range					
Range 1 and Range 3	Range Improvements (nonstructural)	FACTS	Mount Taylor	3,816 Acres Range Cover Manipulation	Integrated target from Broadcast Burning, Thinning for Hazardous Fuels Reduction, and Commercial thinning.
Range 1 and Range 3	Range Improvements (nonstructural)	FACTS	Magdalena	42,102 Acres Range Cover Manipulation	Integrated target from Wildfire-Natural Ignition
Range 1 and Range 3	Range Improvements (nonstructural)	FACTS	Mountainair	1,901 acres Range Cover Manipulation	Integrated target from Precommercial Thin, and Group Selection Cut
Recreation					
Wilderness1 (W1)	Wilderness use by wilderness opportunity spectrum	N/A	N/A	N/A	We did not measure use by wilderness opportunity spectrum. It was not practical using the National Visitor Use Monitoring process for estimating visitation.
W2	Miles of wilderness trail construction/reconstruction and maintenance	Infra, Work Accomplishment Records	Mountainair Sandia Magdalena	Mountainair: 6 miles maintained	Accomplished through a combination of varying

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
				Sandia: 34.9301 miles maintained; 22.1878 miles improved Magdalena: 12.6 miles maintained	partnerships, volunteers, and force account.
Recreation 1 (REC1)	Miles of non-wilderness trail construction/reconstruction and maintenance	Infra, Work Accomplishment Records	Mount Taylor Magdalena Mountainair Sandia	Mt Taylor: 43.58 miles improved (all on the CDNST) Magdalena: 0 Mountainair: 0.8 miles maintained Sandia: 56.1102 miles maintained; 24.1944 miles improved	Accomplished through a combination of varying partnerships, volunteers, and force account.
REC2	Developed site use, public and private sector	Infra	Mount Taylor Magdalena Mountainair Sandia	11, 680 PAOT capacity OR 943,000 visits to developed recreation sites	PAOT = Persons at one time
REC3	Condition of developed sites in the public sector	NRM	Mount Taylor Magdalena Mountainair	Class I: 93 sites – 78% Class II: 25 sites-- 21%	Any facility condition index less than 0.90 is considered class II and not maintained to standard.

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
			Sandia		
REC4	Provision of increased development of PAOT for recreation use	RMIS	Black Kettle and McClellan Creek National Grasslands Kiowa and Rita Blanca National Grasslands	N/A	There was no increase in PAOTs.
Visual Resources 1 (V1)	Effect of management activities on acres of visual quality objectives		Black Kettle and McClellan Creek National Grasslands Kiowa and Rita Blanca National Grasslands	N/A	Scenery is considered in every project analysis, along with other resources. The Scenery Management System (SMS) is the best available science for management of scenic resources, and the Grasslands now use SMS under the 2012 Grasslands Plan. Therefore this monitoring element is no longer valid for the Grasslands
Soil and Water					
SW1 (Watershed improvement acres and watershed condition inventories)	Watershed improvement acres	Work Plan project files on districts WIT	Integrated projects on all districts	Watershed condition improved on 6500 acres.	Accomplished through integrated projects with vegetation, range, and wildlife programs.
SW1 (Watershed improvement acres and watershed condition inventories)	Watershed Condition Assessment	WCATT (Watershed Condition Assessment Tracking Tool)	All districts	161 watersheds rated as *good* 50 watersheds rated as *fair* 1 watershed rated as *poor* Watershed Restoration Action Plan (WRAP) developed for Bluewater Watershed. Essential projects identified to	

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
				bring watershed to properly functioning condition. Las Huertas WRAP in progress.	
SW2 (Riparian acres treated to bring to satisfactory condition)	Riparian acres treated to bring to satisfactory condition	Supervisor's Office, WIT	Magdalena	1.5 acres of riparian area improved in Limestone Canyon.	Wildlife program has the lead on these integrated projects.
SW2 (Riparian acres treated to bring to satisfactory condition)	Spring inventory	Supervisor's Office	All districts	A new agreement was signed with UNM to continue spring inventory work	Spring monitoring through cost share agreement with UNM (led to appropriate prioritization and restoration).
SW3 (Best management practicesBMPs)	BMPs	Supervisor's Office project support files BMP database	All districts	Summarized BMP monitoring results for last few years. Effectiveness varies across project type. Common weakness is BMPs being implemented in the field according to NEPA document.	
SW4 (Closing and obliteration of temporary roads and trails)	Close and restore non-designated routes	Supervisor's Office	Mount Taylor	0.21 miles of unauthorized road were obliterated to improve resource condition	
Wildlife					
Wildlife (WL1 & 2)	Acres of browse vegetation treated to improve availability and productivity	2630-1 SO, District Files WIT Database	Mount Taylor Magdalena Mountainair Sandia	49,163 acres of terrestrial habitat were improved with both planned activities and managed fires	
Wildlife (WL3)	Monitored water developments	2630-1 SO, District Files	Mount Taylor Magdalena Mountainair	40 wildlife waters were monitored/maintained and one guzzler was completely replaced.	

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
		HSP Maintenance Report	Sandia		
Wildlife (WL4)	Monitored number of quality snags per acre	2620-3 SO, District Files Triannual Field Review of forest product sale areas	Mount Taylor Magdalena Mountainair Sandia	Not monitored this period.	
Wildlife (WL5)	Monitored number of roost groups	2620-3 SO, District Files Triannual Field review of forest product sale areas	Mount Taylor Magdalena Mountainair Sandia	Not monitored this period.	
Wildlife (WL6)	Threatened, endangered or sensitive animals Monitored for goshawk occupancy and reproductive success	2670-6 SO, District Files	Mount Taylor Magdalena Mountainair Sandia	Mount Taylor = 1 territory monitored, no detections Magdalena = 0 territories monitored, but surveys conducted for projects Mountainair = 5 territories monitored; detected a pair at two sites; one fledgling confirmed Sandia = 1 territories monitored; one pair and one fledgling confirmed	Magdalena: surveys conducted over 1,126 acres, no goshawks detected
Wildlife (WL6)	Threatened, endangered or sensitive animals Southwestern willow flycatcher territories monitored	2670-6 SO, District Files	Mount Taylor Mountainair	Not monitored this period.	Historically, SWWF were known to have nested close by the Cibola. In 1994, surveys in the Zuni and Manzano Mountains resulted in the discovery of a single pair at Bluewater Creek in the Zunis, the first and only nesting pair

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					documented on the Cibola. These surveys also identified portions of Tajique Canyon as potential habitat for the SWWF. As yet, Tajique Canyon has no SWWF, but two areas within the canyon have potential: the first lies just to the north of Tajique CC and the second is three miles farther up the road. This flycatcher does travel along the Estancia Valley corridor and has been seen only 15 miles to the south at Quarai.
Wildlife (WL6)	Threatened, Endangered or sensitive animals Mexican spotted owl	2670-6 SO, District Files	Mount Taylor Magdalena Mountainair Sandia	A total of 26 PACs were monitored across the Forest. Of these, owls were detected in 14 PACs. Two single males and one single female were also observed.	Approximately 4,230 acres were surveyed on Magdalena for project work. Two new PACs were created.
Wildlife (WL6)	Threatened, Endangered or sensitive animals Monitored Aplomado falcon prey species and population trend (two 1-mile BBS transects conducted annually by volunteers)	2670-6 SO, District Files	Magdalena	There are no Aplomado falcon territories on the Forest. Not monitored this period.	
Wildlife (WL6)	Threatened, endangered or sensitive animals Monitored peregrine falcon eyrie occupancy and nest success (random sample	2670-6 SO, District Files	Mount Taylor Magdalena Mountainair Sandia	Not monitored this period.	

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
	conducted by NMDGF contractors, monitoring by CIF staff)				
Wildlife (WL6)	Threatened, endangered or sensitive animals Zuni bluehead sucker monitoring	2670-6 SO, District Files	Mount Taylor	Persistence of Zuni bluehead sucker was confirmed in the Aqua Remora.	Persistence continues.
Wildlife (WL7)	Threatened and endangered or sensitive plants Zuni fleabane	2670-6 SO, District Files	Mount Taylor Magdalena	Not monitored this period.	
Wildlife (WL8)	Population and habitat trends of management indicator species Monitored occurrence and population trend of migratory and resident birds on about 140 miles of transects to determine habitat trends-habitat diversity	2620-3 SO, District Files	Mount Taylor Magdalena Mountainair Sandia	**Management Indicator Species (MIS)** *Juniper titmouse:* statewide population trend down, Cibola habitat trend stable. *Pygmy nuthatch:* statewide population trend up, Cibola habitat trend stable. *Hairy woodpecker:* statewide population trend stable, Cibola habitat trend stable. *Red-breasted nuthatch:* statewide population trend stable, habitat trend stable. *Red-napped sapsucker:* statewide population trend stable, habitat trend stable. *House wren:* statewide population trend down, Cibola habitat trend down.	
Wildlife (WL8)	Population and habitat trends of management indicator species	2620-3 SO, District Files	Mount Taylor Magdalena Mountainair Sandia	The elk population trend on the Cibola National Forest is upward.	On the four mountain districts, the Cibola National Forest relies on survey data collected by the New Mexico Department of Game &

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
	Monitored Game-Management Indicator Species: Merriam's turkey Rocky Mountain elk Mule deer Black bear			The mule deer population trend on the Forest is downward. Black bear populations appeared to be stable on the Forest. Population numbers are expected to increase for the Turkey in the future, indicating an upward population trend on the Cibola National Forest.	Fish (NMDGF) for population numbers and trend analysis of all game species. The NMDGF uses this data to set harvest regulations and population goals for the species under their jurisdiction.
Wildlife (WL8)	Population and habitat trends of management indicator species Monitored trends of migrating raptor populations on the Manzano Mountains	2620-3 SO, District Files	Mountainair	Hawks were monitored from August 28-October 31. Observers counted during 68 days within this time frame. A total of 2,747 encompassing 16 species were counted. Only 503 raptors per 100 hours were counted this year, which is the second lowest on record and significantly below site average.	HawkWatch Raptor monitoring site on the Manzano Mountains near Capilla Peak through a Challenge Cost Share Agreement.
Wildlife (WL8)	Population and habitat trends of management indicator species Monitored fall passerine bird species by trapping at Capilla Peak	2620-3 SO, District Files	Mountainair	RGBR banded neo-tropic migrant species at Capilla Rosy Finches were banded at Sandia Peak during the winter of FY 2016 on the Sandia RD.	Rio Grande Bird Research monitoring through a Challenge Cost Share Agreement.

FY 2016 Monitoring Results for the Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands under the 2012 Land and Resource Management Plan

Table 4. Monitoring results for the Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
Black Kettle and McClellan Creek Management Area Vegetation Types Represented by Ecological Indicators					
Black Kettle and McClellan Creek Management Area Mixed Grass Prairie Ecological Indicator (presence of undesirable trees)	Treatment (broadcast burn) of Mixed Grass Prairie	FACTS	Black Kettle and McClellan Creek National Grasslands	Mixed Grass Prairie: 40 acres Broadcast burn	
Black Kettle and McClellan Creek Management Area Shinnery Oak and Deep-Plowed Inclusions Ecological Indicator (presence of undesirable trees)	Treatment (broadcast burn) of Shinnery Oak and Deep-Plowed Inclusions	FACTS	Black Kettle and McClellan Creek National Grasslands	Deep-Plowed Inclusion: 331 acres Broadcast burn acres Shinnery Oak: 389 Broadcast burn acres	
Cottonwood-Willow (Canadian River) Ecological Indicator (presence of undesirable trees)					

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
Riparian Restoration-Canadian River/Mills Canyon area	Treatment and monitoring of Russian Olive and Saltcedar populations along the Canadian River	FACTS	Kiowa and Rita Blanca National Grasslands	347 acres of invasive Saltcedar and Russian Olive chemically retreated in 2016.	Ongoing project since 2007. To date 2,010 acres have been treated and 337 acres have been retreated.
Developed Recreation: Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands-wide					
Developed Recreation, Grasslands-wide	Condition surveys and inventories were conducted on 20% of developed recreation facilities grasslandswide.	Recreation files and INFRA data for Black Kettle and McClellan Creek National Grasslands and Kiowa and Rita Blanca National Grasslands	Black Kettle and McClellan Creek National Grasslands Kiowa and Rita Blanca National Grasslands	Completed all condition surveys in FY16 and real property surveys (20% cycle);	
Engineering: Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands-wide					
Roads and Access, Grasslands-wide	Miles of road decommissioned; roads rehabilitated and miles of road obliterated.	North of Mills Lower campground	Black Kettle and McClellan Creek National Grasslands Kiowa and Rita Blanca National Grasslands	Decommissioned ¼ mile of user created road by installing barriers.	
Black Kettle and Kiowa and Rita Blanca Management Areas Vegetation Types Represented by Management Indicator Species					

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
Black Kettle National Grasslands Mixed Hardwood Riparian Management Indicator Species (MIS)	Annual surveys to monitor Rio Grande turkey (*Meleagris gallopavo intermedia*) as a MIS The Rio Grande turkey populations on Black Kettle National Grasslands are monitored by U.S. Forest Service (USFS) and Oklahoma Department of Wildlife Conservation (ODWC). ODWC conducts winter flock counts on BKNG and throughout Roger Mills County. USFS conducts spring call surveys during breeding season. Eight survey routes are run twice a season when conditions are favorable. Six routes are in Oklahoma and two are in Texas (Lake Marvin Recreational Area and Lake McClellan Creek National Grassland)	District files	Black Kettle and Kiowa Rita Blanca National Grasslands	ODWC completed 100% of winter flock surveys. USFS complete 100% of Oklahoma surveys. No data was collected in Texas.	2016 Winter flock survey results show the Rio Grande turkey population to continue to rebound from the decline during 2011-2013 drought. Increased rainfall coupled with habitat restoration projects have resulted in healthier habitat conditions. With these gains in habitat quality, Rio Grande turkey populations are responding accordingly. FY 2016 survey results showed the population of 2000 birds to be increasing. Additionally, In 2015 USFS began conducting call surveys. In 2015 monitoring was conducted at 104 points recording 38 responses. Responses were recorded at 36.53% of the points. FY 2016 call surveys showed an increase in the overall number of responses with 91responsed recorded. However, the number of stations where responses occurred declined (26.16%). This is attributed to spring dispersal being delayed due to prolonged winter weather pattern. Observations showed

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					larger numbers of birds on roost sites.
Kiowa National Grasslands Pinyon-juniper and Juniper Grasslands MIS	USGS Breeding Bird Survey (BBS) to monitor breeding birds including western bluebird MIS	2620-3 Kiowa and Rita Blanca National Grasslands Office Wildlife files	Kiowa and Rita Blanca National Grasslands	The BBS data for 2016 for the two routes nearest the Kiowa National Grassland (Farley and Grenville routes) did not detect Western Bluebirds – but they usually do not. No local trend estimates regarding the status of the species can be made from these available data.	This species was detected by the Bird Conservancy of the Rockies (Formerly Rocky Mountain Bird Observatory) on the Kiowa National Grassland intermittently from 2009 – 2015, but unfortunately the routes were not completed in FY 2016. Surveys by the USGS from 1966 through 2015 indicated a slightly downward trend for New Mexico; the downward trend is stronger 2005 - 2015. Reasons for recent declines in New Mexico as a whole are not well understood. Proper Pinyon-juniper woodland management as provided for in the Cibola Grasslands Plan will ensure habitat is provided for the western bluebird.
Kiowa and Rita Blanca National Grasslands Early Successional Shortgrass Prairie MIS	Annual breeding bird survey to monitor burrowing owl (*Athene cunicularia hypugaea*) as a MIS for early successional shortgrass prairie associated with black-tailed prairie dogs. Bird conservancy of the Rockies (BCR) surveyed the Kiowa and Rita Blanca National Grasslands in 2016. Their surveys did not detect burrowing owls.	2620-3 Kiowa and Rita Blanca National Grasslands Office Wildlife files	Kiowa and Rita Blanca National Grasslands	Recent monitoring effort on the Kiowa National Grassland and Rita Blanca National Grassland by BCR in FY 2016 did not detect any burrowing owls. Burrowing owls were detected intermittently	Overall, there is no significant direction of population change from 2005 – 2015 in the shortgrass prairie region. This indicates a stable population.

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
				in the both National Grasslands from 2009 – 2015, so these numbers are within the normal expected range. All USGS Breeding bird surveys (BBS) near the Kiowa and Rita Blanca National Grasslands (total 4) were conducted in FY 2016, and all four routes detected Burrowing Owls. The Felt, Oklahoma BBS route had its highest count of Burrowing Owl detections (13) in recent years, and the Texline route also detected a large amount of Burrowing owls (16). The Grenville, New Mexico route had its highest burrowing owl detections in recent years in FY 2016 with 10, and Farley's count dipped in FY 2016, at 5.	Burrowing owls are heavily dependent on prairie dogs for burrows, for burrow maintenance, and for the preferred low vegetation profile. Programs to maintain prairie dog populations are expected to be beneficial to burrowing owl populations, because they maintain breeding habitat.