



United States Department of Agriculture

Cibola National Forest and National Grasslands

Fiscal Year 2015 Monitoring and Evaluation Report



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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 2015, based on Section 219 of the 2012 planning rule provisions.



Elaine Kehrman, Forest Supervisor



Date

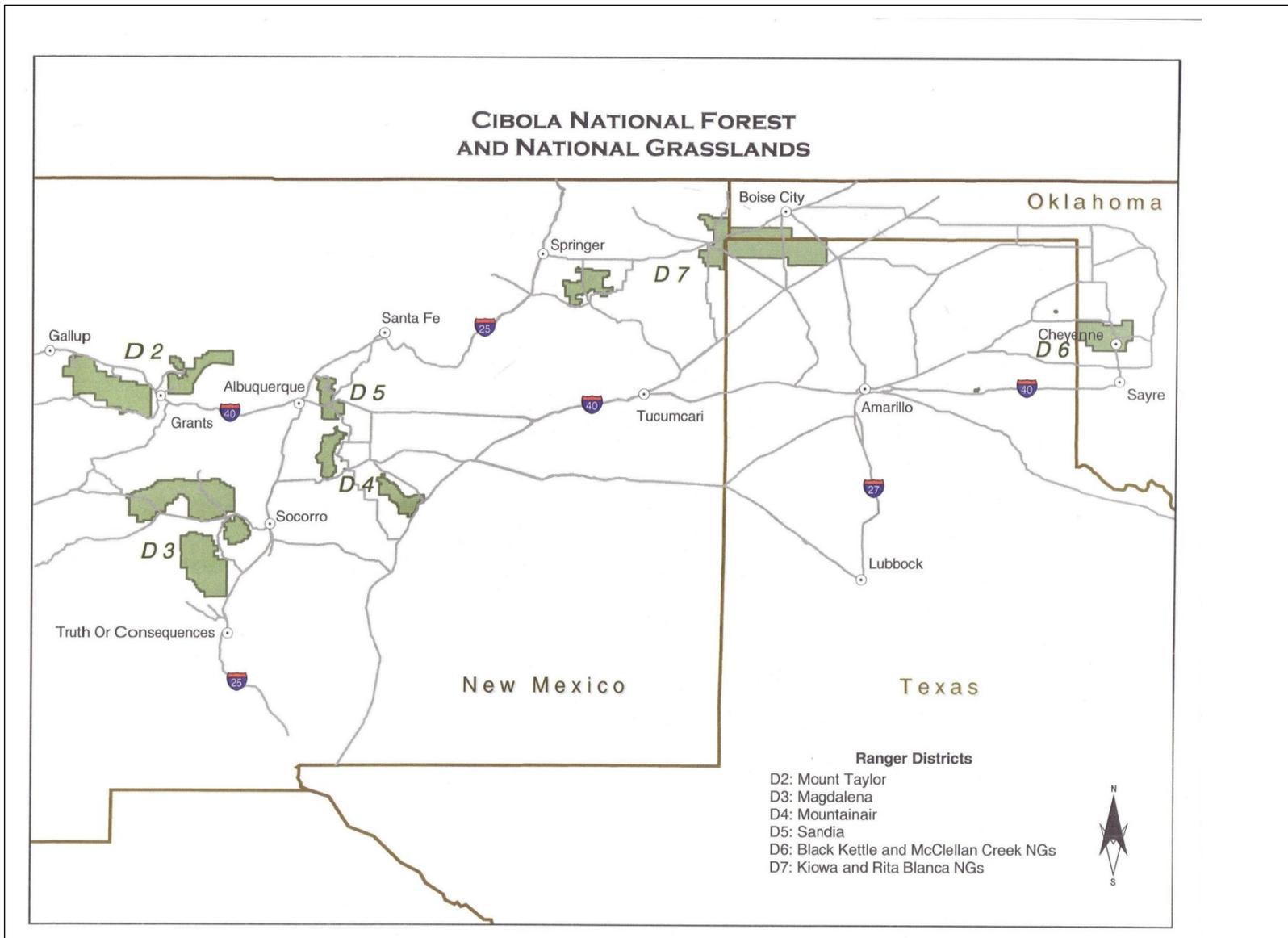


Figure 1. Cibola National Forest and National Grasslands and vicinity

Executive Summary

This monitoring and evaluation report for fiscal year 2015 (FY 2015) gives monitoring results for land and resource management activities important to achieving Forestwide 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 2 and Table 3. 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 2015 involved 22 heritage resource sites, determined as eligible for the National Register. Archeologists conducted 8 surveys for section 106 clearances and documented 37 sites.

Engineering

No new roads were constructed, and 5 miles of existing system roads were reconstructed in FY 2015. Approximately 223 miles of Forest Service system roads were maintained Forest-wide, and 5.5 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 8 prescribed burns on the Cibola National Forest totaling approximately 1,458 acres in FY 2015. 48 wildfires burned about 17,960 acres in FY 2015 on the Cibola NF & NG. A bulk of those acres was the Red Canyon fire. 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 timber sale 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 2015, 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 2015.

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 Forestwide.

The Forest did not utilize the silvicultural practices of overstory or final removal harvesting, perform reforestation, or restocking of regeneration harvests during FY 2015. Forestry staff accomplished timber stand improvement, hazardous fuel reduction, and commercial harvesting activities on over 13,000 acres in FY 2015. 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 13,215 CCF in FY 2015.

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 1,500 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 850 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 Forestwide 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, one military training area permit, and three telecommunication site leases. Staff also approved two new authorizations, one for road use to access private property and one for a water transmission pipeline. Audits of approximately 50% of the telecommunication sites on the Forest were completed using funds set aside in FY 2015 with an enterprise team for this purpose.

Range

Range monitoring continue to indicate the effects of long term drought as the primary reason for reduced stocking rates. Stocking rates for the 2015 grazing year on the mountain units were 28% below permitted, which changed little from the 2014 grazing year. This has been the trend the last five years where authorized use has been 74% of permitted use or 26% below permitted. Overall drought conditions improved. For the Central Highlands Division near normal conditions were observed between the reporting periods from January 2015 to December 30, 2015 within the Central Highlands Division which encompasses 3 out of the 4 Mountain Units including Sandia, Mountainair and Magdalena. The Northwestern Plateau Division which encompasses the majority of the Mount Taylor Ranger District had near normal conditions for the reporting period. The Standardized Precipitation Index (SPI) at the end of the reporting period (December 30) for the Central Highland Division was + .05 and +.02 for the Northwestern Plateau. 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.

Eighty allotments were administered to standard, which includes part of 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 than 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 Conservation 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. Watersheds are referred to by their proper name as well as by a grouping of numbers, called the watershed’s [hydrologic unit code \(HUC\)](#), also known as the watershed address. The HUC can range from 2 to 16 digits.

The Cibola National Forest rated 6th code HUC watersheds with more than 10% within National Forest System Lands using the national framework for assessing watershed condition (USDA 2011).

- 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. 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. There are 255 named springs on the Cibola as identified using available GIS data. 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.

The Cibola is with the University of New Mexico to inventory springs across the forest and grasslands. This inventory provides basic information about springs and their associated surface and ground waters, using protocols developed by the U.S. Forest Service and other researchers. Location, flow, chemistry and management status are some of the attributes collected. During the five year agreement with UNM, 110 springs were inventoried for characteristics and condition. An interim report of results was finished in 2015. Agua Ramora, is being monitored more extensively, due to its importance to the Zuni bluehead sucker, a rare fish. 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. By combining resources, 8,290 acres of watershed were improved in 2015 on the Mountain Ranger Districts, largely through integration with wildlife and vegetation programs. This includes riparian restoration and soil improvements through targeted vegetation management.

Best Management Practices

BMP results from the last few years were summarized. This information showed the need to improve BMP description in NEPA documents and carry through BMPs into the implementing document, such as the Burn Plans and Allotment Management Plans.

Wildlife

Results for wildlife monitoring elements of the 1985 Cibola Forest Plan Mountain Ranger Districts only are as follows. The Red Canyon Fire was managed for multiple objectives in order to restore fire to the fire-adapted ecosystems. The Red Canyon Fire originated from a lightning strike in the upper West Red Canyon watershed at approximately 1800 hours on June 15, 2015 and eventually encompassed 16,723

acres. Four 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, no monitoring was conducted. 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. Three new nest sites were confirmed. Territory 0303T07 was found during Hop Canyon surveys. It had new nest construction with an adult observed on the tree but nesting was not confirmed. Nesting was confirmed at Territory 0303T06 with 2 nestlings. This site was reported by a citizen in 2014. Territory 0303T08 was located during Mexican spotted owl surveys and 2 fledglings were confirmed. Two sites were surveyed and no goshawks were observed (0303T05 and 0303T04). Of the five post-fledging family areas on Mountainair RD, in one site, a pair was detected with an active nest site located and one fledgling confirmed. On the Sandia Ranger District, three of four post-fledging family areas had unknown occupancy, and the fourth site had at least one fledgling.

For the threatened Mexican spotted owl, no areas were surveyed for the presence of owls in 2015 on the Mount Taylor Ranger District. On the Magdalena Ranger District, three areas were surveyed for Mexican spotted owls on 4,230 acres of suitable habitat. This included Limetop/Reflection (1835 acres), Parkside (1328 acres) and East Mag II (1067 acres). Eleven Protected Activity Centers (PAC) were informally monitored with 4 pair, 1 single male and 1 single female observed by Forest Service personnel. There was no response at 5 PACs. Nesting was confirmed for three of the pair. Two nestlings were observed at one nest and 2 fledglings confirmed with the other pair. The female was observed incubating at the third nest but no visits were conducted to determine the number of young. There were five incidental observations of which three were within existing PACs. The other two were outside the breeding season and outside of PACs. Bird Conservancy of the Rockies (formerly Rocky Mountain Bird Observatory RMBO) had responses at seven of the twelve sites on Magdalena. Only two of the responses were within existing PACs. The other 5 were from 0.27 to 1.1 miles from an existing PAC. 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 2015. One historic Golden Eagle nest location was visited once and was not occupied on Magdalena RD. 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 2015.

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 27 August—5 November; in 2015 observers counted on 66 of 71 possible days during this period for a total of 553.38 hours. A total of 3,500 migrating raptors representing 17 species were counted in 2015, 35% lower than the site long-term average. Highlights of the flight included a high season total for Broad-winged Hawks (18). The flight consisted of 55% accipiters, 23% buteos, 10% falcons, 8% vultures, 2% harriers 1% eagles, and 1% Ospreys. The relative proportions of accipiters, ospreys, and harriers was high in 2015 compared to historic values; buteos and vultures were counted in proportions similar to historic averages; while falcons and eagles made up less of the flight than they typically do. Sharp-shinned Hawks were the most abundant species (44% of the total), followed by Cooper's Hawks (13%), Red-tailed Hawks (11%), Swainson's Hawks (11%), Turkey Vultures (8%), and American Kestrels (8%). The remaining species each accounted for 1% or less of the total count. Crews trapped for 59 days (totaling 440.8 hrs) between 28 August and 31 October, and captured 397 raptors of eight different species. Both the number of hours trapped and capture totals were low compared to historic site averages. Season highlights included the capture of a hatch-year male Golden Eagle and 6 Peregrine Falcons (5 hatch-year and one after-second-year). During the season, a total of 128 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 2015, as well as banded rosy finches on the Sandia Ranger District during the winter of 2015.

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) 2015 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 2 and Table 3 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

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 for this period.

The following ecological indicators are not required for FY15:

- 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

Rio Grande turkey, a management indicator species for mixed riparian hardwood vegetation on the Black Kettle National Grassland, remained at the same population level in 2015 as in 2014 for Roger Mills County. Population estimate was 1800 individuals. While showing an increase from a low in 2013 (1650), this reflects a reduced population over the last 5 years (2900 in 2010).

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

Rio Grande turkey

The Rio Grande turkey is a management indicator species for mixed riparian hardwood vegetation on the Kiowa and Rita Blanca National Grassland. For these purposes, we are assessing the trends of the Wild Turkey because data for the Rio Grande turkey subspecies is not available. In 2015, one Wild Turkey was detected on the Rocky Mountain Bird Observatory (RMBO) survey in New Mexico (See Figure 1). The very small number of detections over the survey years makes it impossible to conduct a reliable trend analysis for this area for the RMBO data, and they were not able to estimate population density for 2015.

The Breeding Bird Survey (BBS) data for 2015 for the two routes nearest the Kiowa National Grassland are not available yet. BBS for the Texas routes that are nearest the Rita Blanca National Grassland were not conducted in 2015. BBS in Oklahoma were conducted in 2015, but neither route detected wild turkeys. Because of the limited amount 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 2013, but the trends are informative for management purposes. Overall, in regions that include the Kiowa and Rita Blanca National Grasslands, the population is increasing.

Western Bluebird

The western bluebird is the management indicator species in pinyon juniper and juniper grassland on the Kiowa and Rita Blanca National Grassland, was detected by the RMBO on the Kiowa National Grassland in 2015. RMBO estimated densities and population sizes for species on the Kiowa National Grassland and on the Rita Blanca National Grassland for 2011 – 2013, but density was not able to be estimated on either grassland for western bluebird in 2014 or 2015.

The Breeding Bird Survey (BBS) data for 2015 for the two routes nearest the Kiowa National Grassland are not available yet. BBS for the Texas routes that are nearest the Rita Blanca National Grassland were not conducted in 2015. BBS in Oklahoma were conducted in 2015, but neither route detected Western bluebirds. Because of the limited amount of local data, the long-term BBS data for the states including the national grasslands were used for analysis, but the BBS did not analyze Oklahoma. These only include data up to 2013, but the trends are informative for management purposes. Overall, in the states analyzed, there is no significant direction of population change. This indicates a stable population.

Burrowing Owl

The 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 and Rita Blanca National Grasslands by RMBO in 2015 detected five burrowing owls. In 2014, estimated population size was 536, with a density of 0.45 birds per square kilometer on the Rita Blanca National Grassland. In 2015, estimated population size was 588, with a density of 0.5 birds per square kilometer on the Rita Blanca National Grassland. Population size could not be estimated for New Mexico in 2015.

The Breeding Bird Survey (BBS) data for 2015 for the two routes nearest the Kiowa National Grassland are not available yet. BBS for the Texas routes that are nearest the Rita Blanca National Grassland were not conducted in 2015. BBS in Oklahoma were conducted in 2015, and both routes detected Burrowing Owls. The Felt, Oklahoma BBS route had the highest number of Burrowing Owl detections in the history of the survey, and the Keyes, Oklahoma route detections were a little lower than average.

Because of the limited amount of local data, the long-term BBS data for the shortgrass prairie Bird Conservation Region (BCR) and the states that include the national grasslands were used for analysis. These only include data up to 2013, but the trends are informative for management purposes. Overall, in the states analyzed (New Mexico, Texas, and Oklahoma), there is no significant direction of population change. This indicates a stable population. The exception is in the recent decade in Texas: the Burrowing Owl Population trend is negative and thus decreasing.

Grasslands Plan Background and Monitoring Administrative Correction

The Cibola Grasslands plan and associated environmental impact statement (EIS) were published and implemented in 2012 under the 1982 Planning Rule. Previously, the Cibola Grasslands were managed under direction of the 1985 Cibola Forest Plan, as amended. The 2012 Cibola Grasslands Plan has not been amended to date.

However, there is an administrative correction to part 6, page 124 (Monitoring Elements) of the Cibola Grasslands Plan currently being undertaken. A typographical mistake was made in identifying the mountain bluebird (*Sialia currucoides*) as a management indicator species (MIS) in pinyon-juniper and juniper grasslands on the Kiowa and Rita Blanca Management Area. The correct MIS for the above vegetation communities on the aforesaid management area is the western bluebird (*Sialia mexicana*). The western bluebird is more suited as a MIS because of its more consistently documented occurrence and ease of detection on the management area, versus the sporadic, occasional occurrence of the mountain bluebird. The analysis conducted and documented in the final EIS for the Cibola Grasslands Plan focused on the need for a MIS specifically for cavity nesting birds that would reveal a change in vegetation structure and species composition in the pinyon-juniper and juniper grasslands vegetation communities due to Forest Service management. The western bluebird is a cavity nesting species better suited to reveal

such changes. This species was indeed selected as an MIS in collaborative interagency meetings of USFS biologists with biologists of the New Mexico Department of Fish and Game and the U.S. Fish and Wildlife Service in July 2010 and was documented in the planning record; however, the name of the species became transposed in the final documents. Thus, the trends of the western bluebird, not the mountain bluebird, are reported in this FY 2015 Monitoring and Evaluation Report.

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 1 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 summer 2018.

Table 1. 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 2015 Monitoring Results under the 1985 Cibola Forest Plan for Mountain Ranger Districts Only

Table 2. FY 2015 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	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 2015 was 37.
Cultural Resources	Clearance surveys for cultural resources	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 5 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 290 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.
EF3	Miles of road obliterated	Work accomplishment	Mount Taylor	0.21 miles of unauthorized road were obliterated to	Although targets were met, a large amount of unauthorized road

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
		records (local drive)		improve resource condition in the area.	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	521	
Broadcast Burning (covers a majority of the unit)	Broadcast burning	District files	Magdalena	153	
Resource Benefit Managed Wildfire	Change of Natural Fuels Wildfire Underburn	District files	Magdalena	17,843	
Burning of Piled Material	Burning of piled material	District files	Magdalena	25	
Broadcast Burning (covers a majority of the unit)	Broadcast burning	District files	Mountainair	155	
Broadcast Burning (covers a majority of the unit)	Broadcast Burning	District files	Sandia	210	
Burning of Piled Material	Burning of piled material	District files	Sandia	131	
Forestry					

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
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 thinning grants administered in FY 2015.	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.	<p>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).</p> <p>Monitoring has allowed the districts to make length of season adjustments in personal-use firewood (Mount Taylor, Magdalena, Mountainair).</p> <p>Monitoring has also allowed districts to make area-wide designations for personal-use firewood (Magdalena).</p> <p>Desired results are also achieved through interaction and collaboration with grant partners (Mount Taylor, Magdalena, Mountainair).</p>
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	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.

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
				the effectiveness of an insect pheromone “interruptant” was initiated on the Magdalena RD.	
Forestry	Monitored for hazard trees at all developed recreation sites	District recreation files	Forestwide	There is continued mortality, mostly of white fir, in the Sandia District’s developed recreation sites in Sandia.	<p>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 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.</p> <p>Bucking of fallen trees is unnecessary to ensure removal, because permittees buck and remove them.</p>
Forestry	Monitored commercial and personal-use fuelwood areas for compliance with permits and contract requirements	District forestry files	Forestwide	Wood theft and timber trespass continued; compliance with closure orders was not always adhered to.	<p>Due to lack of forest protection officers and law enforcement officers, the Forest has moved to load ticket system and NEPA-designated fuelwood areas Forestwide. 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</p>

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					(particularly in Mount Taylor, Magdalena and Mountainair.
Forestry	Acres of overstory and final removal harvest	FACTS	Forestwide	In FY2015, the Forest did not use this silvicultural practice.	
Forestry	Acres of intermediate harvest (Commercial Thinning and Thinning for Hazardous Fuels Reduction)	FACTS	Forestwide	In FY 2015, the Forest accomplished 5,307 acres of this harvest system.	
Forestry	Acres in need of reforestation	FACTS	Forestwide	Zero acres were in need of reforestation in FY 2015.	
Forestry	Timber Stand Improvement acres	FACTS	Forestwide	In FY15 the Forest accomplished over 13,000 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	Forestwide	13,000 CCF were sold in FY15.	
Forestry	Adequate restocking of regeneration harvest	FACTS	Forestwide	0 acres in FY2015.	
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	Forestwide	No new stands were examined in FY 2015.	

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
Lands					
Lands	Monitoring of right-of-way (ROW) acquisition through non-Forest Service inholdings	Supervisor's Office	Forestwide	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	Forestwide	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 Service preserve key pieces of land from future development.	Continued to peruse opportunistic and desirable land acquisitions.
Lands	Effect of management practices conducted on adjacent non-Forest Service lands on goals and objectives of the Forest Plan	Supervisor's Office	Forestwide	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	Forestwide	Processed four authorizations that have expired, one military training area permit and three telecommunication site leases. Accepted and approved two applications for new authorizations, one for road use to access private property and one for water transmission pipeline.	Monitoring continues for NEPA compliance with authorization reissue and application processing. Funding set aside for audits of telecommunication sites for FY 2015.

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
Range					
Range	Range improvements (structural) inspections	2240 Range files	Mount Taylor Magdalena Sandia	Fence: 1.2 miles in Mount Taylor	<p>As time and funding allows, annual inspections of range improvements will continue. Inspections normally occur during utilization monitoring on selected allotments.</p> <p>Wildlife accessibility and safety are key design features in new and reconstructed range improvements.</p> <p>Reduction in water flows from springs and seeps continue to be observed.</p>
Range	Range improvements (structural) maintenance	2240 Range files	Mount Taylor Magdalena Mountainair Sandia	None to report in FY15.	<p>Maintenance on range improvements is normally identified as a permittee responsibility. The 25 years + age of current infrastructure necessitate an emphasis on major reconstruction in future years.</p> <p>Installation of "Please Close the Gate" signs will be critical to maintain proper livestock grazing rotations.</p>
Range	Range improvements (structural) new	2240 Range files	Mount Taylor Magdalena Mountainair	Fence: 2 miles in Magdalena Pipeline: 6 miles in Magdalena Drinkers: 3 in Magdalena	<p>Partnerships and other cost share opportunities will be emphasized in the future to continue construction and maintenance of new and existing range improvements.</p> <p>Wildlife escape ramps were installed as a design feature in new Magdalena drinkers.</p> <p>Construction of new range improvements will be critical in</p>

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					future years to implement projects identified in Range Rescission Act NEPA.
Range	Grazing Capacity	2240 Range files	Magdalena Mount Taylor	10 allotments	Variable precipitation noted on the districts. Actual use has been documented below permitted numbers. Allotments will continue to be monitored to assure stocking rate does not exceed capacity.
Invasive Species Management	Inventory	NRIS	Mount Taylor Magdalena Mountainair	None reported in FY15.	Invasive species management will continue to be an issue, particularly within sensitive habitats such as riparian areas, which are limited on the Cibola. Mountainair has observed an upward and aggressive trend in thistle infestations. Seasonal crews would be effective to inventory and treat new infestations because of limited staff time. Partnership and volunteer efforts can also facilitate and accelerative inventory and treatment initiatives.
Invasive Species Management	Treatment	NRIS	Kiowa Rita Blanca	Russian Olive and Tamarisk: 22 acres.	
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

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					National Visitor Use Monitoring process for estimating visitation.
W2	Miles of wilderness trail construction/reconstruction and maintenance	Infra, Work Accomplishment Records	Mountainair Sandia	44.45 miles	The majority of trail work on the Forest is accomplished by volunteers and youth corps crews. All of the trail work this summer was accomplished by the Forest Guild YCC Crew. On Mountainair, 2 miles of wilderness trails were maintained, one on the Trigo Trail and 1 mile on the Kayser Mill Trail. On the Sandia District, 38.13 miles were maintained and 3.32 miles were improved in wilderness.
Recreation 1 (REC1)	Miles of non-wilderness trail construction/reconstruction and maintenance	Infra, Work Accomplishment Records	Mount Taylor Magdalena Mountainair Sandia	88.3 miles	On Mt. Taylor, 17 miles of CDNST trail were maintained; rock cairns were constructed on 13 miles of the north segment and on 4 miles in the middle segment, and 2 miles of the CDNST were rerouted to minimize soil loss and resource damage. Additionally, 1 mile of snowmobile trail was maintained and 0.7 mile TRACS survey was completed on Standard/terra trail #02215 at Mt. Taylor. On Mountainair, 2 miles of trail were maintained. All of the trail work this summer was accomplished by the Forest Guild YCC Crew. All of the non-wilderness trail work was accomplished on the Kayser Mill Trailhead. On Sandia, 13.43 were improved and 52.9 were maintained.

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
REC2	Developed site use, public and private sector	Infra	Mount Taylor Magdalena Mountainair Sandia	2,616,645 PAOT	PAOT = Persons at one time
REC3	Condition of developed sites in the public sector	Infra	Mount Taylor Magdalena Mountainair Sandia	Class I: 76% Class II: 24%	Any facility condition index less than 0.90 is considered class II and not maintained to standard. For Mt. Taylor, 4 developed site facilities were monitored and inventoried including the following facilities: McGaffey McKenzie, McGaffey Group, Quadrathalon run/ski, and Zuni RR tour.
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		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					

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
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 8,290 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 <i>good</i> 50 watersheds rated as <i>fair</i> 1 watershed rated as <i>poor</i> Watershed Restoration Action Plan (WRAP) developed for Bluewater Watershed. Essential projects identified to bring watershed to properly functioning condition. Las Huertas WRAP in progress.	Reassessment to occur in 2016.
SW2 (Riparian acres treated to bring to satisfactory condition)	Riparian acres treated to bring to satisfactory condition	Supervisor's Office, WIT	Magdalena	Three acres 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	Interim report received for 110 springs inventoried through cost share agreement with UNM. Springs characterized in terms of chemistry, flow, and condition.	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	

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
				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	Sandia Mountainair Mount Taylor	NEPA in progress for closure/restoration of non-designated routes on Sandia. NEPA near completion for closure/ restoration of non-designated routes on Mount Taylor as part of Zuni Mountain Trail Project. 32 acres improved through road decommissioning in Bluewater on Mount Taylor.	
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	HBT-ENH-TERR Improved acreage and reported habitat enhanced terrestrial.	
Wildlife (WL3)	Monitored water developments	2630-1 SO, District Files HSP Maintenance Report	Mount Taylor Magdalena Mountainair Sandia	Number of developments: Magdalena = 3 Sandia = 1 Mountainair = 4	
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	Mount Taylor Magdalena	Not monitored this period.	

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
		Triannual Field review of forest product sale areas	Mountainair Sandia		
Wildlife (WL6)	Threatened, endangered or sensitive animals Monitored for goshawk occupancy and reproductive success	2670-6 SO, District Files	Mount Taylor Magdalena Mountainair Sandia	<p>Mount Taylor = 0 territories Magdalena = 5 territories Mountainair = 3 territories Sandia = 2 territories</p> <p>Surveys in Magdalena found one fledgling at one of the two nest sites, with no occupancy detected at the other site monitored.</p> <p>Of the 5 PFAs on Mountainair, two were not occupied, while two had single adult detections, and in one, a pair was detected.</p> <p>In Sandia, three out of four PFAs were not occupied, but the fourth had two fledglings.</p>	<p>Of the 5 PFA surveys done on Magdalena, one had single adult detection, one with two nestlings, one with two fledglings, and two were not occupied.</p> <p>Surveys done in Mountainair found one fledgling at nest site and two sites with no occupancy.</p> <p>Surveys done in Sandia found one fledgling at nest site and one site unoccupied.</p>
Wildlife (WL6)	Threatened, endangered or sensitive animals Southwestern willow flycatcher territories monitored	2670-6 SO, District Files	Mount Taylor Mountainair	Not monitored this period.	<p>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 documented on the Cibola. These surveys also identified portions of Tajique Canyon as potential habitat for the SWWF.</p> <p>As yet, Tajique Canyon has no SWWF, but two areas within the</p>

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					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	<p>A total of 12 survey areas and or PACs were completely or partially surveyed for presence of owls in 2015 on the Forest. Four pairs of owls were found with 2 successful fledglings visually observed within one extant PAC and 2 nestlings observed in another. Three MSO responses were recorded by sex at three different PAC's (2 single females, 1 single male).</p> <p>In 2015, 4,230 acres were surveyed for Mexican spotted owls on the Magdalena District of the Cibola N.F. The project areas surveyed were Limetop/Reflection, Parkside, and East Mag II. There were 5 incidental observations of which 3 were in existing PACs. Bird Conservancy of the Rockies (formerly Rocky Mountain Bird Observatory, RMBO) had responses at 7 of the 12 plots they were monitoring for the population study.</p>	

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
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.	Monitored Deep Canyon and San Juan Canyon.
Wildlife (WL6)	Threatened, endangered or sensitive animals Monitored peregrine falcon eyrie occupancy and nest success (random sample conducted by NMDGF contractors, monitoring by CIF staff)	2670-6 SO, District Files	Mount Taylor Magdalena Mountainair Sandia	Not monitored this period.	
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.	<p>The forest installed a solar aerator in the upper unoccupied pool at Agua Remora and removed woody debris under the direction of the Regional TE Fish biologist, NM Game and Fish and FWS to increase oxygen levels and enhance suitability of the pool for future occupancy in 2014. The enclosure fence was repaired after trespass cattle entered the enclosure and severely grazed riparian vegetation in 2014. The aerator ceased functioning in 2015 and was removed. The enclosure fence still needs to be finished, and funding sources are being pursued for FY16.</p> <p>The Forest Service continues to partner with the University of New</p>

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					Mexico to complete a spring inventory and water quality monitoring analysis in the Rio Nutria watershed. The purpose of the study is to gather baseline data to determine if water withdrawals in the Tampico Springs subdivision are affecting water availability in the watersheds occupied by the Zuni bluehead sucker.
Wildlife (WL7)	Threatened and endangered or sensitive plants Zuni fleabane	2670-6 SO, District Files	Mount Taylor Magdalena	Not monitored this period.	Thirty-eight sites were evaluated for their presence of Zuni fleabane in 2014. A total of 3,395 individual plants were documented in 2014 from the two New Mexico meta-populations. Extant plants were documented from 34 of the 38 sites. Of these, five sites were documented for the first time in 2014. Two sites no longer contained any plants, and two sites were either mismapped or misidentified. Two specimen records were obtained through SEINet, but were determined to be inaccurate. A search of the Zuni Mountains location on the specimen label by K.D. Heil et al. 29450 (SJNM) failed to find any Zuni fleabane or suitable habitat at or near the described location. The R. Kass 2469 (RM) specimen from near Grants, New Mexico, was determined to be misidentified. (Dr. Ron Hartman, Rocky Mountain Herbarium)

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					Curator, personal communication, July 2014).
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	<p>Management Indicator Species (MIS)</p> <p><i>Juniper titmouse</i>: statewide population trend down, Cibola habitat trend stable.</p> <p><i>Pygmy nuthatch</i>: statewide population trend up, Cibola habitat trend stable.</p> <p><i>Hairy woodpecker</i>: statewide population trend stable, Cibola habitat trend stable.</p> <p><i>Red-breasted nuthatch</i>: statewide population trend stable, habitat trend stable.</p> <p><i>Red-napped sapsucker</i>: statewide population trend stable, habitat trend stable.</p> <p><i>House wren</i>: statewide population trend down, Cibola habitat trend down.</p>	
Wildlife (WL8)	Population and habitat trends of management indicator species Monitored Game-Management Indicator Species: Merriam’s turkey Rocky Mountain elk Mule deer Black bear	2620-3 SO, District Files	Mount Taylor Magdalena Mountainair Sandia	The elk population trend on the Cibola National Forest is upward. 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 in the future, indicating an upward	On the four mountain districts, the Cibola National Forest relies on survey data collected by the New Mexico Department of Game & 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.

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
				population trend on the Cibola National Forest.	
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	<p>A total of 3,500 migrating raptors representing 17 species were counted in 2015, 35% lower than the site long-term average. Highlights of the flight included a high season total for Broad-winged Hawks (18).</p> <p>Crews trapped for 59 days (totaling 440.8 hrs) between 28 August and 31 October, and captured 397 raptors of eight different species. Both the number of hours trapped and capture totals were low compared to historic site averages. Season highlights included the capture of a hatch-year male Golden Eagle and 6 Peregrine Falcons (5 hatch-year and one after-second-year).</p> <p>During the season, a total of 128 individuals visited the site, primarily from New Mexico. Visitors also traveled from Arizona, California, Florida, Illinois, Massachusetts, Tennessee, Texas, and Vermont.</p>	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	2620-3 SO, District Files	Mountainair	RGBR banded neo-tropic migrant species at Capilla Peak in the fall of 2015 on the Mountainair RD. The overall	Rio Grande Bird Research monitoring through a Challenge Cost Share Agreement.

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
	Monitored fall passerine bird species by trapping at Capilla Peak			trend for many of the monitored birds trended downward. Rosy Finches were banded at Sandia Peak during the winter of 2015 on the Sandia RD.	

FY 2015 Monitoring Results for the Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands under the 2012 Land and Resource Management Plan

Table 3. 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
<i>Black Kettle and McClellan Creek Management Area Vegetation Types Represented by Ecological Indicators</i>					
Black Kettle and McClellan Creek Management Area Mixed Grass Prairie Ecological Indicator (presence of undesirable trees)		2230/2240 Range files	Black Kettle and McClellan Creek National Grasslands	Not monitored this period.	
Black Kettle and McClellan Creek Management Area Shinnery Oak and Deep-Plowed Inclusions Ecological Indicator (presence of undesirable trees)		2230/2240 Range files	Black Kettle and McClellan Creek National Grasslands	Not monitored this period.	

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
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 grasslandwide.	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 FY15; 6 out of the 7 meet national standards. Black Kettle and McClellan Creek MA surveyed 12% of facilities and 33% were in class I condition.	Final recreational facility scheduled for repair in FY17. A Facility Condition Index (FCI) value less than 10% is regarded as class I; a FCI greater than 10% is regarded as class II. FCI is an indicator of the depleted value of an asset. The value is calculated by dividing the deferred maintenance cost (DM) by the current replacement value (CRV).
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					
Black Kettle National Grasslands Mixed Hardwood Riparian	Annual surveys to monitor Rio Grande turkey (<i>Meleagris gallopavo intermedia</i>) as a MIS The Rio Grande turkey populations on Black Kettle National Grasslands are monitored by Oklahoma Department of Wildlife Conservation	2620-3 Survey data from ODWC for Rogers Mills County	Black Kettle and McClellan Creek National Grasslands	ODWC census data estimated approximately the same numbers from the previous year in Roger Mills County in 2015.	During 2011–2013, drought likely had a significant impact on Rio Grande turkey recruitment (the number of poults that reach juvenile age in the fall).

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
Management Indicator Species (MIS)	(ODWC), which monitors fall turkey roosts for Roger Mills County.				<p>Weather conditions and predation were the two main factors influencing recruitment. Nesting cover was likely adequate in most locations. However, the long-term drought may have caused minimal vegetative growth, negatively affecting food for poults and hens, and perhaps, fall recruitment. More moderate weather conditions may have been responsible for estimated increases in numbers based on 2014 census data, which remained the same in 2015. Black Kettle National Grasslands and the National Wild Turkey Federation continue to restore turkey roosts, loafing areas, and brood range by removing the dense understory of eastern red cedar, salt cedar, and black locust from cottonwood galleries. A lush grass and forb understory response benefited all wildlife. The units will be rested from livestock grazing following restoration implementation, and the grass/forb/legume composition is anticipated to improve over time</p>

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					through adaptive management.
Kiowa National Grasslands Pinyon-juniper and Juniper Grasslands MIS	Annual breeding bird survey to monitor western bluebird (<i>Sialia mexicana</i>) as a MIS USGS Breeding Bird Survey (BBS) to monitor breeding birds including western bluebird MIS Additional information can be found at http://www.mbr-pwrc.usgs.gov/	2620-3 SO Wildlife Files, Annual Breeding Bird Survey Report	Kiowa and Rita Blanca National Grasslands	Data not available for FY15.	Populations at the national level showed a stable trend for the western bluebird. Surveys by the USGS from 1966 through 2010 indicated a slightly downward trend for New Mexico. Reasons for recent declines in New Mexico as a whole are not well understood. The trend for the Kiowa National Grasslands indicated a stable trend. Proper 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 (<i>Athene cunicularia hypugaea</i>) as a MIS for early successional shortgrass prairie associated with black-tailed prairie dogs. RMBO integrated monitoring for 2014. RMBO's specialized surveys to monitor burrowing owl populations began in 2015. Additional information can be found at http://rmbo.org/v3/avian/ReportsPublications.aspx .	2620-3 Kiowa and Rita Blanca National Grasslands and Supervisor's Office Wildlife files	Kiowa and Rita Blanca National Grasslands	Recent monitoring effort on the Rita Blanca National Grassland by RMBO in 2015 detected five burrowing owls. Four in Oklahoma, one in New Mexico, and zero in Texas.	Burrowing owls are heavily dependent on prairie dogs for burrows, for burrow maintenance, and for the preferred low vegetation profile. Programs to maintain prairie dogs, such as shooting area closures, dusting for fleas and plague vaccine testing, which are being practiced on portions of the Kiowa and Rita Blanca Management Area, are expected to be beneficial to burrowing owl

Program Area/LRMP Monitoring Element Addressed	Monitoring Accomplished	Record Location	Districts	Results	Comments
					<p>populations, because they maintain breeding habitat.</p> <p>This monitoring design and current sampling intensity is not providing population trend information for the burrowing owl on the Kiowa and Rita Blanca Management Area. The Cibola National Forest Supervisor's Office established an agreement with RMBO in 2014 to establish a baseline estimate of burrowing owl populations within known prairie dog towns on the Kiowa/Rita Blanca National Grasslands in New Mexico, Texas, and Oklahoma. Work on the baseline surveys began in the spring of 2015.</p>