

Forest Plan

Monitoring and Evaluation Report

Lincoln National Forest

Fiscal Year 2008

United States Department of Agriculture
Forest Service

Southwestern Region

March 2009

Forest Supervisor's Certification

I certify the Lincoln National Forest Plan (Forest Plan) as amended is sufficient to guide management of the Forest over the next year.

/s/ Jacquie A. Buchanan
Jacquie A. Buchanan
Forest Supervisor

6/2/2009
Date

Executive Summary

Forest monitoring and evaluation are designed to focus attention and resources on evaluating on-the-ground management practices and Forest Plan implementation. In addition, monitoring and evaluation provide an overview of resource conditions and trends as they relate to indicators and criteria for sustainability, with specific attention to the effects of management on ecological system structure and function.

The Executive Summary section provides an overview of events that helped to shape fiscal year 2008 and summarizes some of the lessons learned from the monitoring activities found in the table on pages 8-15. These events and lessons learned are anticipated to be relevant to the future management of the Lincoln National Forest (LNF).

Fiscal Year 2008—Overview

On September 5, 2007, the Forest Supervisor signed a decision notice for the Sacramento Mountains Defoliation and Spray Project to help control *Nepytia janetae*, a native caterpillar that feeds on the needles of conifer trees. The decision authorized treatment of about 4,419 acres of National Forest System (NFS) lands in the vicinity of the Village of Cloudcroft with two aerial applications of *Bacillus thuringiensis* var. *kurstaki* (*Btk*) during the fall of 2007 and spring of 2008. Treatment occurred first on Otero County and Village of Cloudcroft lands, then on National Forest System lands on November 5-6, 2007. The spray project was designed to minimize further spread onto private lands in and around the Village and to minimize additional defoliation and tree mortality on forest lands within and adjacent to developed Forest Service campgrounds. The Lincoln National Forest sought public comments in April 2008 on the Draft Environmental Assessment. (The Record of Decision was signed June 16, 2008.)

In April 2008, due to continued drought conditions, the Forest enacted “Stage II” Fire Restrictions. Stage II fire restrictions prohibit campfires, outdoor smoking, off-road travel and operating a chainsaw. The Pepper Fire, on the Sacramento Ranger District was the first fire of the year beginning on April 16. By April 22, the fire was 100% contained and covered approximately 640 acres.

Extremely dry conditions were expected to continue into late spring and early summer. By late April, the Forest announced a Forest Closure Order effective May 1 and the Forest remained closed until July 2. During the closure, the Forest experienced three additional fires: the Rocky Fire (49,000 acres) on the Guadalupe Ranger District; the Peak Fire (2 acres) within the White Mountain Wilderness of the Smokey Bear Ranger District; and the Cook Fire (22 acres) off Highway 443 of the Sacramento Ranger District.

After July 2, the Forest reopened and remained in Stage II fire restrictions throughout most of the month until the area received sufficient rainfall—mainly from the remnants of Hurricane Dolly in late July. Both the Smokey Bear Ranger District and the Village of Ruidoso areas experienced flood-related damage. Portions of the Smokey Bear Ranger District were closed due to the flood damage. In early August, the Forest reopened part of the closed portions of the flood-damaged areas.

By late August, the Forest announced the launch of the “Perk-Grindstone Fuels Reduction and Forest Project.” The project is a collaborative effort to connect community protection, firefighter safety, and forest restoration in the complex and scenic landscapes of the Lincoln National Forest, Mescalero Apache Reservation and the Greater Ruidoso Wildland Urban Interface Areas. Approximately 1,320 acres were treated in 2008 resulting in a shift toward larger-sized trees and less under growth, and a more balanced size-class distribution with a reduced amount of ladder fuels.

By the end of the fiscal year, considerable effort had been spent addressing the Travel Management Rule that limits motorized vehicle access to designated routes or areas. The Forest held several public workshops to discuss the Rule. In addition, extensive work was completed to correct our mapped transportation system and bring it up to date. As a result, motorized vehicle use maps (MVUM) will be produced in 2009 and made available to the public free of charge. Eventually, all National Forest System lands will have MVUMs available to the public.

Each fiscal year the Forest commits money to local small-business development. In fiscal year 2008, the Lincoln National Forest committed \$1,172,820 through thinning contracts on 6,264 acres contributing to local, small businesses.

The Forest also collected \$217,632 in fees related to forest products and services delivered through other Forest Service programs. Below is a breakdown of the fees collected.

Forest Products and Services	Revenues
Recreation/Special Uses	\$27,561
Communication Sites, Power Lines, etc.	\$519
Minerals	\$5,090
Land Use	\$62,059
Wood Products	\$6,793
Grazing	\$115,610
TOTAL	\$217,632

Fiscal Year 2008--Findings/Lessons Learned

Below are some of the lessons learned from the monitoring and evaluation of on-the-ground management practices that are anticipated to be relevant to the future management of the LNF.

- Defoliation by western spruce budworm was the most extensive insect and disease activity observed on the LNF. The 14,000 acres of defoliation mapped this year was a reduction from the 30,000 acres mapped in 2007.
- The impact of the pinyon needle cast defoliation from 2007 was still quite visible and striking in 2008. It is possible that needle cast was also active, but not visible during the surveys due to the defoliation from the previous year.
- Aspen defoliation caused by various biotic and abiotic agents was mapped across 1,000 acres, an increase from the 320 acres mapped in 2007. While aspen decline has been more prevalent in northern New Mexico, 110 acres of aspen stands on the LNF were mapped as possibly having some mortality.
- Of the areas previously affected by *Nepytia janetae*, nearly 4,900 acres were mapped as still having substantial defoliation. This is only a portion of the nearly 14,500 acres of *N. janetae* defoliation mapped during 2006-2007. Minor new foliage was detected during ground-checking and recovery is still possible.
- Per the 2007 Sacramento Mountain Defoliation Spray Project mitigations, adult Sacramento Mountain Checkerspot Butterfly monitoring was conducted following spring treatments. Of the nine butterfly sites monitored, three sites were within the Project area. Sites within the Project area consisted of 40% of the area sampled. The calculated estimated densities were similar in both the sprayed and non-sprayed areas.
- The Recreation Facility Analysis was completed. Recreation facilities were evaluated and a five-year plan put into place. The plan states what is required to bring the Forest's recreation infrastructure into alignment with the resources available to operate and maintain the facilities to standards. Proposed changes include: adding sites to popular and frequently visited areas, decommissioning or partially decommissioning three sites, increasing or decreasing the capacity of some sites, and evaluating fee increases at three sites.
- Combining allotments and pastures is beneficial to provide for changes in permittee management such as the need for better pasture rotation and provide opportunities to reduce the infrastructure (fences, pipelines, etc.) and infrastructure maintenance.
- Through the Range program, ground disturbances created by fire and mechanical pushes are monitored for noxious weed invasions.

Most treated infestations are recurring. To increase the "kill-rate" success, multiple treatments are necessary in many areas. Due to budget constraints, multiple-year and follow-up noxious weed treatments have not occurred. To help address the need for multiple treatments and increase the "kill-rate," changes have been made to the herbicide. Two herbicides are being combined and the newly mixed formula appears to be working.

Additional and multi-year monitoring will be necessary to confirm whether the new formula is effective.

Fiscal Year 2008--Changes/Changes Needing Additional Consideration

During the Forest Plan Revision process, changes that are relevant to the future management of the Lincoln National Forest will be considered, noted and implemented beginning in 2010. Some of the 2008 fiscal year changes and those changes needing additional consideration during the Revision process are identified below.

- In 2009, due to biological assessment requirements, a change will be initiated when butterfly monitoring occurs. In past years and into 2008, when monitoring larvae plots, adult butterflies were monitored and contractor methodology was applied. During the Sacramento Mountains Aerial Spray Project, concerns were expressed, ref. the bacterium remaining in the ecosystem. Over the next two years (2009 and 2010) adult-butterfly populations will be monitored and recorded. A third party will be assigned to draw conclusions from the data collected. The change allows the Forest to stay within NEPA and protocol compliance.
- Noxious weeds and invasive treatments often need multiple-year and follow-up treatments. Due to budget constraints, follow-up treatments may not always occur or determined to be a priority. The Forest Plan does not address the need for multiple follow-up treatments.
- Some caves and abandoned mines are being used as illegal dump sites. The cleanup can involve the removal of hazardous materials. In addition to the cave and mine dump-site cleanup, the abandoned-mine residual materials are causing watershed and human health concerns. For example, the High Rolls mining district is a 5,000-acre area with six abandoned mine sites that have elevated levels of toxic metals in the waste rock. Watershed and human health protection require the removal of 6,726 cubic yards of waste rock containing high amounts of lead in excess of background concentrations with other potential hazardous substances such as arsenic, cadmium, and copper. Cleanup and removal at the end of fiscal year 2008 was approximately 90% complete with work completion expected in 2009. These types of situations, as well as the watershed and human health concerns, should be re-evaluated during the Plan Revision effort.
- Although considerable progress was made on the documentation and mapping of the Lincoln National Forest transportation system in 2008, the Forest continues to struggle with rights-of-way issues. There is a need to gather historic rights-of-way information, confirm the accuracy, and automate the information.

Forest Plan Amendments and Issues Needing Further Analysis

The Forest Plan and associated Environmental Impact Statement (EIS) were published in 1986. Since implementation of the Plan, fifteen amendments have been completed. The Amendment Table below displays each amendment, the decision date and a brief amendment summary.

Amendment Table

Amendment Number	Decision Date	Amendment Description
Amendment #1	May 1987	To clarify the operational procedures for identifying those roads and trails that are to be part of the transportation system and that will be open or closed to motorized vehicles.
Amendment #2	September 1988	To delete all references to base-in-exchange lands.
Amendment #3	September 1988	To change the guidelines for management of the Sacramento Mountain salamander.
Amendment #4	September 1988	To correct typographic errors and minor mistakes not carried over from the proposed plan.
Amendment #5	September 1990	To adjust to the Title 2 of the Sikes Act funding and habitat improvement opportunity.
Amendment #6	April 1991	To amend the limit of flexibility needed to accomplish the objectives for the Carrizo Integrated Resource Area.
Amendment #7	April 1991	To update the Forest's list of recreation and trails projects.
Amendment #8	September 1995	To reduce the tentatively suited timber base in Management Area 2D by three acres in order to construct the Sunspot Visitor Center; and to clarify the boundary of the Haynes Canyon Research Natural Area.
Amendment #9	June 1996	To include the latest information on habitat needs for the Mexican spotted owl and northern goshawk with clear standards and guidelines providing preliminary direction for site-specific project design.
Amendment #10	December 2002	To incorporate scientific research into the design of treatments in Mexican spotted owl (MSO) habitat so data and knowledge gained from treatment activities can be applied to management of future watershed projects with similar MSO habitat.
Amendment #11	September 2002	To protect eligible rivers (river areas) for their outstandingly remarkable values, and preserve their classification pending determination of their suitability for inclusion into the National Wild and Scenic River System.
Amendment #12	June 2005	To manage vegetation and fuels reduction in the 16 Springs project area within Mexican spotted owl habitat.
Amendment #13	May 2007	To allow for the reissuance of recreation residence special-use permits to the same people holding the current permits for the 18 sites at the Pine Lodge Summer Home tract and 23 sites in the Eagle Creek Summer Home tract.
Amendment #14	August 2007 (Withdrawn 2/2008)	To meet current Federal wildland fire management policy, direction, and terminology. Intended to revise current decision-making criteria for wildland fire use.
Amendment #15	June 2008	To modify forest characteristics to minimize the chance of large-scale crown fire within the wildland-urban interface (Perk Grindstone) around the Village of Ruidoso.

Plan amendments demonstrate the shifting trends occurring on the Lincoln National Forest and across the Southwest. For example, demographics today highlight an older-age population, and resource managers are considering programs that are service and amenity oriented to help address this segment of forest users. Recreation-visitor surveys, socio-economic assessments, and values, attitudes and belief's assessments refine and address shifting trends. Plan amendments will be used to keep the existing Forest Plan current until the Forest Plan Revision process occurs.

The future Forest Plan Revision process will be built upon foundational concepts. These include: 1) managing listed threatened and endangered plants and animals; 2) increasing knowledge of the function, processes, and interrelationships of ecosystems; and, 3) recognizing thresholds beyond which ecosystems may no longer be sustainable. Some of the issues needing further analysis during the Forest Plan Revision process are:

- Managing the current transportation system and future needs
- Determining what roads and trails will be available for public use
- Determining what uses will be allowed while working to protect resources
- Evaluating needed rights-of-way
- Balancing how to manage and implement the new Transportation Management Rule while controlling resource damage
- Balancing public-land use, land exchanges, and special uses
- Monitoring an even and sustainable flow of wood products
- Increasing the availability and utilization of small-diameter wood products from the Forest
- Managing recreation opportunities
- Protecting heritage resources
- Managing elk and livestock forage competition on grazing allotments
- Meeting water-yield, water-quality, and water-use standards on the Forest
- Managing the Wildland-Urban Interface (WUI) to reduce catastrophic fire risk
- Re-introducing native wildlife species to the Forest
- Maintaining viable populations of threatened and endangered species

Monitoring Activities

Monitoring and evaluation provide the Forest Supervisor and land managers information and data to ensure responsive and efficient management of the Lincoln National Forest. There are two components to the Lincoln National Forest monitoring and evaluation program--formal and informal. Formal monitoring and evaluation are conducted in accordance with monitoring plans specifically developed for the project or program level. Both formal and informal monitoring and evaluation occur during administrative and operational activity field visits.

Acronyms Used

EA – Environmental Assessment
 FACTS – Forest Activity Tracking System database
 FSVEG – Forest Vegetation database
 GIS – Geographic Information System
 GPS – Global Positioning System (a survey type/technique)
 IMPROVE – Interagency Monitoring of Protected Visual Environments database
 INFRA –Infrastructure database
 LNF – Lincoln National Forest

MSO – Mexican spotted owl
 MVUM – Motorized-Vehicle-Use Map
 NEPA – National Environmental Policy Act
 NMSU – New Mexico State University
 NRIS – Natural Resource Information System
 RD – Ranger District
 ROW – Rights-of-Way
 TE&S – Threatened, Endangered and Sensitive

Table of Monitoring Activities, Findings and/or Lessons Learned for FY 2008

RESOURCE	MONITORING ACCOMPLISHED	RECORD LOCATION	DISTRICT	FINDINGS OR LESSONS LEARNED
Air	Air quality over the White Mountain Wilderness Class I air shed.	IMPROVE	Smokey Bear	No degradation findings reported.
Caves	Cave condition and restoration	Recreation files	Guadalupe	Gating is discouraging illegal entry. Cave monitoring forms were updated to capture complexity of cave monitoring.
Caves	Cave resource protection	Recreation files	Guadalupe	Unauthorized and off-trail use, damaged formations, and biological fatalities continue and are being documented. No increase in damage reported in 2008.
Facilities	Electronic site condition inspections	INFRA and Engineering	Forestwide	Sites were found to be safe and operating

RESOURCE	MONITORING ACCOMPLISHED	RECORD LOCATION	DISTRICT	FINDINGS OR LESSONS LEARNED
		files		procedures followed. A template/form is being developed to provide consistent monitoring and documentation.
Fire/Fuels	Prescribed burn treatments	GIS, FACTS, FSVEG	Smokey Bear, Sacramento	Smokey Bear RD monitored approximately 640 acres of prescribed burning and the Sacramento RD approximately 2,500 acres. No significant findings. Prescriptions were met and contract specifications were followed. The Smokey Bear RD reported an increase in “leave-tree” mortality and made adjustments in future burns to reduce mortality.
Fire/Fuels	Biomass disposal	District files	Smokey Bear, Sacramento	To help address the on-going biomass disposal issues across the Forest, mastication continues to be used in some areas. Mastication techniques deal with the residual material rather than it being piled and burned.
Fire/Fuels	Prescribed fire smoke monitoring—Martinez Burn	District files	Sacramento	The Martinez burn was well within the National Ambient Air Quality Standards for the 24-hour time period.
Heritage Resources	Mexican Canyon Trestle	Recreation/Heritage files	Sacramento	The Trestle’s condition continues to deteriorate. Extensive brush removal around the Trestle area was done in 2008 and a preservation and restoration contract was awarded. Structure evaluation and material preservatives are expected in fiscal year 2009.
Heritage Resources	Historic lookout condition and maintenance	GIS and Heritage files	Sacramento	A stabilization condition assessment was recommended on the Bluewater Lookout storage shed (currently listed on a National Register). The shed is currently on the Forest’s deferred-maintenance list.
Heritage Resources	Rock Art Sites (7)	GIS and Heritage files	Guadalupe	Recorded site conditions.
Heritage Resources	Damage or vandalism from unauthorized activities (8)	GIS and Heritage files	Forestwide	No problems noted. Four sites recommended to be kept on Site Watch list.
Insect and Disease	Damage to forest stands (annual aerial surveys)	GIS and Pest Management files	Forestwide (including Mescalero Apache Tribal	Western Spruce budworm was the most extensive activity observed. Mapped 14,000 acres in 2008 (a reduction from the 30,000 acres mapped in 2007).

RESOURCE	MONITORING ACCOMPLISHED	RECORD LOCATION	DISTRICT	FINDINGS OR LESSONS LEARNED
			Lands)	Pinyon needle cast from 2007 still visible. Possible active needle cast activity in 2008 but not visible due to 2007 defoliation. Aspen defoliation increased to 1,000 acres (from 320 acres in 2007).
Insect and Disease	Infestation of a winter conifer-feeding looper species, <i>Nepytia janetae</i> .	GIS and Pest Management files	Sacramento	Approximately 4,900 acres (a portion of the nearly 14,500 acres of defoliation mapped during 2006-2007) were mapped as still having substantial defoliation. Ground-checking shows new foliage and some recovery.
Insect and Disease	White fir and Ponderosa pine bark beetle caused mortality	GIS and Pest Management files	Smokey Bear	Overall, mortality continues to decline. Approximately 1,600 acres were detected in 2008, a decrease from nearly 9,000 acres observed in 2007. Of 16,000 total acres, 900 acres had Ponderosa pine mortality, an increase from 80 acres mapped in 2007. New White fire mortality was observed in approximately 380 acres.
Invasives	Infestations and treatments	GIS and Range Monitoring Sheets	Forestwide	Resprouting continues to be a problem. Currently working on an EA to allow treatment of seedlings with herbicides.
Minerals	El Capitan mining area	Special-Use files	Smokey Bear	Checked vegetation and reclamation efforts to insure unauthorized test holes were plugged, and roads were scraped and reseeded. Seeding met expectations.
Noxious Weeds	Infestations and treatments	GIS and Range monitoring sheets	Smokey Bear, Sacramento	Smokey Bear RD reported treating 1,064 acres by contract with follow-up treatments on approximately 30 acres. Sacramento RD reported treating only one-half of the prior-treated areas due to budgetary constraints. Both Ranger Districts reported on-going monitoring for new infestations and attempting to treat when found. No new species found in 2008.
Plants (TE&S and Rare Plants)	Sacramento Prickly Poppy populations	GIS and Botany files	Sacramento	Trends show populations continue to decline mainly due to a seven to eight year on-going drought.

RESOURCE	MONITORING ACCOMPLISHED	RECORD LOCATION	DISTRICT	FINDINGS OR LESSONS LEARNED
Plants (TE&S and Rare Plants)	Wright's marsh thistle, Wooton's hawthorn, Yellow lady's slipper, Arizona coral root, Sierra Blanca cliff daisy, Wood lily, Scarlet Penstemon, and Sierra Blanca cinquefoil populations within the Bonito Wildland Urban Interface Area	GIS and Botany files	Smokey Bear	Of the four areas monitored/surveyed for sensitive species, the Scarlet Penstemon was found in one area. Only the Penstemon and Wooton's hawthorn were ever known to occur in this area. The other plants had a small probability of occurrence.
Plants (TE&S and Rare Plants)	Kuenzlers within the Turkey/Gavilan Wildland Urban Interface Area	INFRA and District Range files	Smokey Bear	A total of 1,094 acres were monitored. Although most of the habitat was suitable, no Kuenzlers were found. This might be due to the large number of environmental factors in these areas possibly preventing the spread of the Kuenzlers.
Plants (TE&S and Rare Plants)	Kuenzlers within range allotments/pastures	INFRA and Range files	Forestwide	Exclosures built around Kuenzlers are working and population numbers were not affected by livestock.
Plants (TE&S and Rare Plants)	Kuenzlers with Rawhide fire area (1993)	INFRA and District Range files	Guadalupe	The Rawhide fire resulted in 100% mortality within the burned area. Today, there is no discernable difference between the unburned populations on either side of the fire-affected areas when compared to those within the burned area. Concluding the Kuenzler's cactus is more fire adaptable than noted.
Range	Range allotment administration/annual compliance/utilization	INFRA and District Range files	Forestwide	No significant findings. Permittees are following authorized use, are in compliance with standards and guidelines, and rotation schedules are being met. Using an adaptive management approach by adjusting use in fire and drought situations.
Range	Range condition and trend	INFRA and Range files	Forestwide	No downturns. Showed an increase in 2007-2008. Some allotments continue to show an increase in pinyon/juniper canopy. Production estimates recorded in 2007-2008 were above average.
Range	Range development	INFRA and Range files	Forestwide	Range improvements (infrastructure) such as: fences, pipelines and water features were reviewed with permittees. Mapped locations were adjusted where incorrect, new improvements were added, and additional improvements recommended.
Range	Watershed, soil, range condition, forage production/utilization, ecological status of 15 allotments to	INFRA and Range files	Forestwide	No significant findings. Findings vary by allotment and adjustments are documented in Range files.

RESOURCE	MONITORING ACCOMPLISHED	RECORD LOCATION	DISTRICT	FINDINGS OR LESSONS LEARNED
	support NEPA analyses.			
Range	Elk and livestock demographics and habitat use (In partnership with New Mexico Department of Game and Fish)	Range files	Sacramento	Findings show an increasing impact from elk populations. Populations are increasing in lower elevations. Higher elevation concerns include range allotment fencing and salt problems.
Recreation	Recreation site deferred and annual operating maintenance	INFRA and Facility Master Plan	Forestwide	As a result of Recreation Facility Analysis on 51 recreation facilities, three sites will be decommissioned, one site will be converted, two will have replacements/repairs, and capacity will be adjusted at four sites.
Recreation	Developed sites	GIS	Forestwide	No significant findings or changes. The reconstruction of the Sacramento RD Deerhead Campground began in 2008 with an expected completion date in 2009.
Recreation	Dispersed campsites	GIS	Forestwide	Campsites were mapped and popular sites GPS'd. Dispersed camping areas continuing to expand beyond the 300 foot corridor currently permitted.
Recreation	Ski areas	Special-Use files	Smokey Bear, Sacramento	The ski area outside Cloudcroft did not open during the 2007/2008 ski season. Ski Apache, Smokey Bear RD, suffered extensive damage from the remnants of Hurricane Dolly. Several ski runs were washed out--damaging equipment and holding ponds. Repairs were accomplished prior to the 2008/2009 ski season opening. Both areas received limited snowfall.
Roads	Road condition and class ratings	GIS and INFRA	Forestwide	One mile of road 107A on the Smokey Bear RD was decommissioned. Found roads missing from Forest maps and roads shown "open" that were closed and vice versa. Databases were considerably improved but lacking/missing Rights-of-way information.
Roads	High-clearance roads (Level 1 and 2)	INFRA	Forestwide	A random monitoring sampling was done to collect deferred maintenance information. No significant findings.
Roads	Rights-of-Ways (ROW)	Engineering files and GIS	Forestwide	Roads requiring a ROW were checked against the ROW needs addressed in the Plan. Roads were field checked and those gated were noted. This baseline information will be used to prioritize ROW needs in 2010.

RESOURCE	MONITORING ACCOMPLISHED	RECORD LOCATION	DISTRICT	FINDINGS OR LESSONS LEARNED
Roads	Route density	Engineering files and GIS	Forestwide	Forest Plan route density information was compared to the MSO Recovery Plan route density limits. Both 5 th and 6 th code hydrologic units were assessed to determine if density limits were exceeded. In most cases, route density was within the specified limits with some areas showing densities being exceeded when closed roads were added to the process.
Roads	300 ft. dispersed recreation buffers	Engineering files and GIS	Forestwide	Dispersed recreation user-created routes were inventoried and mapped. Routes across streams and within TE&S habitat were also assessed. Findings were automated and will be used as baseline data.
Special Uses	Regional Wastewater Treatment Plant--land conveyance	Special-Use files	Smokey Bear	Due to changes in laws and regulations, wastewater treatment plants such as this can no longer operate under a Special-use Permit. The Forest is working to sell the property under the Town Site Act authority to a joint-use board for fair-market value.
Streams	Streams in all major drainages of the Bonito Project Area. And, photo monitoring to recapture images from the 1930's and 1950's.	GIS and Hydrology files	Smokey Bear	Riparian condition baseline data were gathered. Findings have not yet been documented.
Streams	Impaired streams	GIS and Hydrology files	Forestwide	Impaired stream listings were compared to the State listings. No significant findings.
Vegetation	Timber sales post-harvest	GIS and FSVEG	Sacramento	Post-harvest slash treatments are not always reducing the fuel risk—requiring follow-up with additional slash treatments.
Vegetation	Mid-scale vegetation accuracy assessments	GIS and FSVEG	Forestwide	This baseline monitoring data will be available in 2009.
Vegetation	Establishment of test-treatment plots consisting of three 100-acres plots. (Work done by NMSU)	GIS and Vegetation files	Sacramento	Two plots will be treated with harvests and burns. The third is a control plot (no treatment). Continuing to establish baseline information and adding additional test plots.
Vegetation	Establishment of 150 permanent monitoring plots in the Bonito Project Area.	GIS and Vegetation files	Smokey Bear	To be used for long-term monitoring of vegetation treatments. Baseline data gathered in 2008.
Vegetation	Turkey/Gavilan pre- and post-vegetation treatment plots	GIS and Vegetation files	Smokey Bear	Baseline information collected.

RESOURCE	MONITORING ACCOMPLISHED	RECORD LOCATION	DISTRICT	FINDINGS OR LESSONS LEARNED
Water	Drinking water at various Forest facilities	Engineering and INFRA	Forestwide	Water sampling was found to be in compliance with the Safe Drinking Water Act. No significant findings.
Water	Groundwater recharge, occurrence, and movement within the Sacramento Mountains	Hydrology files	Sacramento	Mapping continues; no significant findings.
Wetlands/Riparian	Wetland monitoring within the Maruche Canyon, La Luz pipeline area	Hydrology files	Sacramento	Stream flow monitoring (up to three times a year). No significant findings.
Wildlife	Mexican spotted owl (MSO) preferred activity center (PAC) populations	Fauna and Wildlife files	Smokey Bear, Sacramento	<p>The Smokey Bear RD reported monitoring 13 areas a total of 67 times. Out of eight pairs, three pairs had reproduced a total of six young averaging two young per pair.</p> <p>The Sacramento RD reported six formal monitoring trips and 16 informal trips among the Defoliator, Jim Lewis, Sixteen Springs, and Rio Penasco II Project areas as well as some smaller project areas. Three pairs reproduced a total of six young.</p>
Wildlife	Sacramento Mountain Salamander occurrence	NRIS Fauna and Wildlife files	Smokey Bear, Sacramento	Smokey Bear RD reported out of the 16 areas monitored, only four areas had salamander presence. Sacramento RD conducted baseline monitoring within two mastication units (approximately 309 acres). Monitoring will continue into 2009 to determine if mastication has any negative affects on the salamander.
Wildlife	Northern goshawk populations	NRIS Fauna and Wildlife files	Smokey Bear, Sacramento	Smokey Bear RD monitored eight areas. A nest tree and pair were located with no juveniles. A single goshawk (with juveniles) was located in another area. Sacramento RD reported finding no goshawks in any of the four areas monitored.
Wildlife	Mexican Spotted Owl (MSO) Demography Study (Effects of Forest thinning treatments) and MSO prey-base	Wildlife files	Sacramento	Fiscal year 2007 and 2008 treatments within the study plots were not implemented due to budget constraints. During 462 site visits, 69 MSO PACs and two newly detected owl pairs were monitored. Of the 40 pairs of nesting owls, 62 owlets fledged from 34 successful nests. Prey-base—3,648 trap checks resulted in 1,269 captured and 11 mortalities.

RESOURCE	MONITORING ACCOMPLISHED	RECORD LOCATION	DISTRICT	FINDINGS OR LESSONS LEARNED
Wildlife	Sikes Habitat Stamp Program improvements	GIS, INFRA and wildlife/Sikes files; the State Game and Fish Department	Forestwide	Additional habitat improvements were placed across the Forest and monitoring established. Existing project areas were monitored for effectiveness with no significant findings. Sikes data was consolidated into a New Mexico Dept. of Game and Fish geodatabase.
Wildlife	Sacramento Mountain Checkerspot butterfly (SMCB)	Wildlife files	Sacramento	Of the nine sites surveyed, SMCB adults were recorded at three of the sites. Three sites were within the 2007 Defoliator Spray Project area and six sites outside the spray area. Adults were also observed at two other sites but not eligible to be recorded since they were not stationary within the transect area.
Wildlife	Blue Lake bird boxes	Wildlife files	Smokey Bear	Out of the 12 boxes monitored, three were confirmed to have activity. The remaining boxes were cleaned and repaired to make them available for bird usage.

For additional information, go to <http://www.fs.fed.us/r3/lincoln/> or contact the Lincoln National Forest Supervisor's Office at 575-434-7200.