

Carson National Forest
Southwestern Region

Carson Forest Plan Monitoring and Evaluation Report

Fiscal Year 2004

Forest Supervisor Certification of Forest Plan Sufficiency

The Carson Forest Plan is sufficient to guide management of the Forest over the next year. There are improvements that can be made as outlined in the recommendations section and will be scheduled as funding and personnel are available in future years.

/s/ Martin D. Chavez, JR.

MARTIN D. CHAVEZ, JR.
Forest Supervisor

September 30, 2005
Date

Monitoring Activities and Evaluation

Program Area

Summary of Monitoring Conducted and Evaluation

Biological Environment

Wildlife & Fish

Goals: To manage for healthy ecosystems, provide goods and services in an environmentally sound fashion, use new knowledge, develop an integrated inventory, cooperate with other agencies, and promote awareness and appreciation of species.

- **Maintain habitat for viable populations** of all wildlife and fish species found on the Forest and improve habitat for selected species. This will be accomplished indirectly through intensive habitat management.
- **Support New Mexico Game and Fish Department** in meeting its objectives of the New Mexico Comprehensive Wildlife Plan and in the reintroduction of native wildlife and fish species. Favor native species over new exotic species in stocking and introductions whenever possible.
- **Maintain and/or improve habitat for presently listed threatened or endangered species** of animals and other species as they are classified as threatened or endangered. Work toward the eventual recovery and delisting of species.

Threatened and endangered species populations and habitat will be protected and improved as necessary to aid in the recovery of the species.

Monitoring: A summary of status and habitat trends for 11 **management indicator species** (MIS) identified in the Carson Forest Plan (including all listed threatened, endangered and sensitive species thought to occur on the Forest by the US Fish and Wildlife Service) was initiated in FY 1999. Biologists on the Forest pooled their resources, providing MIS information from each district. Additional resources, literature and databases are being used to compile this assessment. The assessment was completed in July 2003. The MIS assessment is a living document with updating continuing throughout 2004 as more information became available. The MIS assessment was posted to the World Wide Web on the Carson National Forest website (<http://www.fs.fed.us/rs/carson>). The updated MIS assessment will be posted to the website upon completion. Its purpose is to provide an overall status of MIS populations and their habitats on the Carson National Forest. MIS species are Rocky Mountain Elk, Bighorn sheep, Merriam's Turkey, Abert's Squirrel, Red Squirrel, Hairy Woodpecker, Ptarmigan, Juniper (Plain) Titmouse, Brewer's Sparrow, Resident Trout, and Aquatic Macroinvertebrates.

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and program monitoring requirements (e.g., 1996 region-wide Amendment for Forest Plans), as well as to provide planning information during project analysis. Monitoring is ongoing for TE&S species on the Forest. The primary species inventoried and monitored (if found) on the Carson are southwestern willow flycatcher, northern goshawk, American peregrine falcon, bald eagle, Mexican spotted owl and Rio Grande cutthroat trout. This type of inventory and monitoring provide the biologists information on the occurrence of TE&S species on the Forest, as well as, whether management activities (e.g., grazing, recreation, tree cutting, etc.) are a threat to a species' habitat or existence. Supporting documentation is located at each of the ranger stations.

In addition to conducting **Mexican spotted owl** (MSO) inventories (15,096 acres in FY 2004) for project proposals, the MSO recovery plan requires microhabitat monitoring to demonstrate that habitat across the range is stable or increasing. A protocol for implementation monitoring of MSO microhabitat was established and is being followed by the Carson NF. According to protocol, approximately 300 pretreatment plots were established in FY 2004. These plots were mostly located in areas where fuelwood and precommercial thinning would be implemented to improve forest health by reducing tree density. Supporting documentation is located at the Camino Real, El Rito, Tres Piedras and Questa ranger stations. No post treatment readings were made in 2004.

Mexican spotted owl was surveyed for over 15,096 acres of mixed conifer habitat. The historic nest site on the Jicarilla was included in this acreage. As with previous year no spotted owls were located. The goshawk had 11,811 acres of project level surveys done with the discovery of one new nest site with young found. In addition nine known nest sites were monitored. Only 1 single goshawk and 2 active nest sites were located. The low number may be due to the ongoing drought during 2004. It was found that one prey species for the goshawk has been affected by the drought and it is likely that other prey species are impacted. It has been found that some raptors will have a negative nesting response during period of low prey bases.

Inventory and monitoring of known goshawks nesting areas in FY 2004 produced the following information:

District	Acres of inventory	Results (sightings, nests)	Monitoring of Known Goshawk Nesting areas
Canjilon	0	0	0
El Rito	355	0	0
Jicarilla	697	0	Single sighting but nesting not confirmed
Camino Real	6806	0	Monitored seven know sites. Two active nests sites located

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Tres Piedras	4650	Nest found with young, one next unoccupied	2 visits to know nest site. No goshawks observed
Questa	0	0	0

Annual counts of the recently (1994) reintroduced **Rock Mountain bighorn sheep** population in the Wheeler Peak Wilderness Area are conducted by the New Mexico Department of Game and Fish (NMGF) . This monitoring is performed to determine the herd's reproductive and adaptive success. The Carson National Forest cooperates with the NMGF in this monitoring. In 2004, Wheeler Peak, Columbine/Hondo and Pecos areas there were 230 sheep. This is considered the carrying capacity for the area. A trap removal of some sheep occurred in 2004. The data is held by the New Mexico Game and Fish Department.

A count of the recently reintroduced **Rock Mountain bighorn sheep** population, transplanted in 2001, in the Latir Wilderness Area was conducted. This monitoring is performed in cooperation with the NMGF to determine the herd's reproductive and adaptive success. The Latir populations has been increasing with a need to remove sheep in FY 2005 to maintain the population at or near carrying capacity. Supporting population information is held by the New Mexico Department of Game and Fish.

Annual counts are made of the **elk** herds in the San Antonio Mountain area and Jicarilla Ranger District. In cooperation with the New Mexico Department of Game and Fish, approximately 111,000 acres were aerially inventoried in FY 2004 to determine reproductive and adaptive success. Supporting documentation for elk aerial monitoring is located at the New Mexico Department of Game and Fish State Office in Santa Fe, New Mexico.

Forest-wide counts are made of **mule deer** populations. In cooperation with the New Mexico Department of Game and Fish, approximately 51,100 acres were aerially inventoried in FY 2004 to determine reproductive and adaptive success. Supporting documentation for deer aerial monitoring is located at the New Mexico Department of Game and Fish State Office in Santa Fe, New Mexico.

Point count transects for **neotropical migratory birds** (NTMBs) are accomplished annually on the Camino Real and El Rito ranger districts. These transects were monitored in FY 2004. Each transect is run several times during the summer. These counts provide trend data of NTMB migrations, as well as trend information about the cowbird population in **southwestern flycatcher** habitat. Supporting documentation is located at the Forest Supervisor's office.

Although surveys to locate populations of the **Arizona willow** have been done in previous years, no field surveys were performed on the Forest in 2004 for Arizona willow. Work is being done on Questa Ranger District in order to protect this sensitive species. The Arizona willow has not been found on any other districts.

Baseline inventory and monitoring of **Rio Grande cutthroat trout** (RGCT) populations are ongoing throughout the Carson NF. The surveys are performed

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using the three-pass regression method and population estimates are calculated from the regression. Samples from populations are also collected for genetic analysis. These surveys are ongoing and help determine the level of management appropriate for the population. Supporting documentation is located at the Forest Supervisor's office.

Wild trout populations and macroinvertebrates

A habitat survey was conducted on the McCrystal Creek/North Ponil Creek for a total of 13.5 miles. This stream along with three others was scheduled in a ten year rotation planned for 2004. Due to budget constraints McCrystal Creek/North Ponil Creek was the only one completed as scheduled in 2004, shifting the monitoring rotation.

Population surveys were conducted on:

Stream	Miles
Columbine	3
Cabresto	6
McCrystal	2
North Ponil	2
Vallecitos	4
Tusas Box	2
Rio Hondo	6
Powderhouse	3
La Cueva	3
Luna Creek	2
Rio Grande	2
Tio Grande	2
Tienditas	2
El Rito Creek	6
Total	45

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Populations seem to be decreasing slightly across the Forest likely due to the low water levels as a result of the ongoing drought which also affects over-wintering habitat. These populations are also low due to the drought.

Macroinvertebrate population monitoring was scheduled in conjunction with the population surveys, following a three year rotation.

Sikes Act projects, such as prescribed burning to improve the quality of habitat, are monitored after completion and continue over several years. Areas are visited to check implementation work, take photos and document project effectiveness. The NM Department of Game and Fish is a partner in Sikes Act project implementation monitoring and whether predicted results have been met. Supporting documentation is located at the Forest Supervisor's office.

Surveys were conducted on the forest for the Abert's squirrel, red squirrel, hairy woodpecker, Brewer's sparrow, juniper titmouse, big horn sheep, turkeys and elk. Data collected by the New Mexico Game and Fish and the Forest Service is being analysis and will be used to update the Forest-Wide Management Indicator Species Assessment.

Results: A summary of status and habitat trends for 11 **management indicator species** identified in the Carson Forest Plan will provide biologists a forest-wide evaluation of MIS habitat to use when analyzing a project's site-specific effects. The report will also allow district biologists to focus on those MIS that are appropriate for the site-specific project for analyzing effects. Inventory and monitoring was done in FY 2004 under contract. The collected data will be added to the MIS assessment during FY 2005.

New species have been listed as **threatened or endangered** since Forest Plan implementation, and these species are being protected through project design features and mitigation measures. Recovery plans have been completed for several species and provide direction to enhance their habitats. Coordination with universities and the US Fish and Wildlife Service and proactive management have prevented the listing of several species, most notably the northern goshawk. Monitoring results in 2004 do not indicate significant alterations in occupied or potential habitat for TE&S species that could result in a downward trend of habitat condition or populations.

Elk numbers have steadily increased over the past two decades with a large herd ranging yearlong on the Tres Piedras Ranger District. A significant migration also occurs to and from the Rio Grande National Forest in southern Colorado to the north and the Tierra Amarilla Grant to the west. Monitoring in recent years has indicated that the elk population on the Tres Piedras RD is fairly stable. On the Jicarilla Ranger District, data shows a steady or increasing population from 1981-1993, and a slightly decreasing population since then. It is estimated that the district has between 600 and 800 resident elk. Annually, the Forest Service, Bureau of Land Management and NM Department of Game and Fish jointly conduct elk surveys in January. These surveys are expected to continue. Established 33 elk photo

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monitoring points within Game Management Unit 52. These plats were monitored in conjunction with the Rocky Mountain Elk foundation in 2004.

There is only one location with known occupied **southwestern willow flycatcher** (SWWF) habitat on the Forest. The status of this population appears to be stable. Forest activities do not point to having any negative effect on the individuals that occupy the suitable habitat. Neotropical migratory bird surveys along the Rio Grande del Rancho have served to also monitor cowbird populations in or near occupied southwestern willow flycatcher habitat. The results from annual monitoring over the past four years indicate an increase in the number of cowbirds along the river. Since livestock grazing on National Forest has not occurred in or near the area for several years, it is deduced that the gradual migration up the river corridor is from the concentrated livestock use on private lands in the Talpa area, southeast of Taos. At this point in time, no plans are in place to actively remove the cowbirds, a threat to the SWWF. The Talpa-Penasco 45 kV distribution line is in portions of the occupied location. The portion of the Talpa-Penasco 69 kV transmission and distribution line has removed the previously existing powerline (45 kV) from SWWF habitat. This action followed implementation of the Talpa-Penasco 69kv powerline Environmental Impact Statement and Decision Notice published in January of 2002. It is anticipated that the Talpa-Penasco 69 kV distribution line construction will be completed in late 2005 or early 2006.

The stabilization of **Rio Grande cutthroat** populations and the reintroduction of the species in a number of the Carson's stream reaches have progressed and monitoring is ongoing. However, the threat of whirling disease contaminating New Mexico's trout fisheries is imminent. The RGCT is extremely susceptible to whirling disease. The disease has been detected in several hatcheries in the state and infected fish have been found in the San Juan River in the northwestern corner of the state. How the disease will affect the RGCT and other trout is not yet known, but the consequences could be catastrophic. The installation of fish barriers and the improved condition of water quality in many of the Carson's mountain streams may be factors in warding off this devastating epidemic.

Coordination with the NM Department of Game and Fish continues. The agency reviews the majority of environmental analyses conducted for project level proposals. Forest biologists have been active in assisting in bighorn transplants and Rio Grande cutthroat surveys of stream reaches that have not been recently inventoried.

Riparian

Goals: To improve the condition of riparian areas through direct treatment and improved resource management, indirectly benefiting fish and wildlife habitat diversity, water quality, and water oriented dispersed recreation.

Monitoring: (1) Determine the response in riparian condition resulting from the implementation of the standards and guidelines and; (2) Monitor the activities and uses to insure they are within the Standards and Guidelines.

Results: Riparian health is a key to a sustainable, healthy forest ecosystem. Historic railroad logging across watersheds and settlement activities (such as intensive grazing) in riparian areas, significantly altered these systems in the late 1800 and early 1900's. Although most of these systems have remarkably recovered, many still

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	<p>need improvement to regain their full natural function.</p> <p>Surveys as part of fisheries surveys are being completed to identify the location and condition of existing riparian areas. Properly functioning conditions are also being assessed. For key projects, baseline watershed quality information is being collected.</p>
<p>Special Areas (Management Area 19)</p>	<p>Goals: The proposed Arellano Canyon Research Natural Area, the Tres Piedras <i>Haplopappus microcephalus</i> Botanical Area, the Middle Fork Lake/Sangre de Cristo Pea Clam Zoological Area and other potential research natural areas will be maintained and protected.</p> <p>Monitoring: NEPA analysis of site-specific proposed actions include the evaluation of effects on special areas, to insure that they are not adversely impacted. An interdisciplinary team evaluates a proposal through the NEPA process and recommends restrictions or corrective actions if inspections reveal adverse impacts on the potential RNA or endangered plants or animals.</p> <p>Results: In FY2004, there was one proposal within the grazing allotment containing the Arellano Canyon Research Natural Area. A decision on the grazing allotment is anticipated in FY 2005. Protection of the current condition proposed research and natural area was contained in the decision. No uses or activities on the Carson National Forest are causing adverse impacts to special areas.</p>
<p>Protection 3 Insect and Disease</p>	<p>Goals: To meet Federal regulation, ensure destructive insect and disease organisms do not increase to potentially damaging levels following management activities.</p> <p>Monitoring: Determine growth reduction and mortality caused by insect and disease infestations.</p> <p>Diseases such as dwarf mistletoes and root disease causing organisms are found scattered about the forest. These diseases cause the death of individual trees and at times small pockets of trees. The scattered nature of these dead trees prevents an estimate of acreage of killed trees. Foliage diseases such as Ponderosa Pine Needle Cast are scattered over the Carson National Forest. New Mexico 518 between Taos and Questa has pockets of needle cast. These locations are expected to increase in size due to drought stress in trees and the increasing amount of inoculum present.</p> <p>Bark beetles—the primary tree killers in the region--tend to be host specific. Moreover, most conifers (excluding ponderosa pine) are normally attacked and killed by a single species of bark beetle. A group of Douglassi-fir “faders,” for example, is most often a result of attack by the Douglas-fir bark beetle, <i>Dentroctonus pseudotsugae</i>. In contract, ponderosa pine are attacked and killed by several different bark beetles. Piñon pine mortality is primarily caused by <i>Ips confusus</i>, another bark beetle.</p>

Insect and disease infestation/infection by year by acres

Insect/Disease	2000	2001	2002	2003	2004
Western Spruce Budworm	86,645	290,610	114,680	62,700	114,990
Aspen Defoliation	15,160	640	2,645	680	7,570
Pinyon Bark Beetle	No data collected	Rudimentary data collected	16,240	277,615	33,265
Mountain Pine Beetle (further investigation has shown the agent to be Western Pine Beetle)	585	1500	3,265	3,325	1,345
Douglas-fir Beetle	40	75	90	6,235	15,815
Spruce Beetle (includes corkbark fire mortality)	955	1,230	1,675	5,840	3,905
Fir engraver Beetle	95	200	455	85	165
Ips beetle in ponderosa pine	Not detected or recorded	275	Not detected or recorded	Not detected or recorded	Not detected or recorded

Western Pine Beetle is not easily detected until a small clump of 3 to 5 trees or more are infested with the resultant browning of needles. This insect rarely infests trees less than 9 inches in diameter. Hence one beneficial effect of this insect is to create dead or dying trees suitable for cavity nesting wildlife species. Using the minimum number of trees needed to aerially detect this insect nearly 4,000 new snags were created in 2004.

Western pine beetle has increased its presence since 1999 but appears to be returning to lower levels. The increased presence is a result of high stand densities and continued drought stresses. Prolonged drought reduces the trees ability to

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	<p>2004 was reduced instead of increased over 2003. It is expected that the infestation incidence will be slightly reduced in 2005 due the reduced infested acreage in 2004.</p> <p>Douglas-fir beetle is similar to Western pine beetle in the number of trees (3-5), dead or dying, or infested before aerial detection is effective. The larger trees, greater than 9 inches in diameter, are attacked and killed. A beneficial effect of this insect is to increase snag densities in infested stands. Using the minimum number of trees needed to aeri ally detect this insect and the acres noted with mortality equates to approximately 47,000 new snags were created in 2004.</p> <p>Douglas-fir beetle has increased its presence from 6,235 acres in 2003 to 15,815 in 2004. The number of infested acres more than doubled. This increased presence is a likely result of high stand densities and continued drought stress. This continued increase mayh be a precursor of a possible epidemic outbreak. Information gathered in 2004 will aid in predicting the possibility of an epidemic outbreak.</p> <p>Pinyon bark Beetle (<i>Ips</i>) generally infests the entire stand though an occasional pinyon will not be attacked. Other tree species within the stand are not infested. The insect is host specific. The effect of this insect is to remove nearly all the pinyon pine in the infested stand. The number of acres infested decreased dramatically but still nearly 33,000 acres were attacked.</p> <p>The immediate vegetative result of this beetle infestation is loss of tree cover. The longer-term result should be an increase in grass and forbs covers as the dead trees fall and breakup creating ground debris this in turn provides micro sites (shade and moisture) collection for grass and other plant establishment. Other plants likely to invade the areas of tree canopy loss include big sagebrush and four wing saltbush.</p>
Protection 5 Fuels	<p>Goals: Fuel treatment will follow the various timber activities as a means of reducing fire hazard and insect and disease potential.</p> <p>Monitoring: Maintain a fuel treatment atlas and record areas treated. Data is generated from field personnel who monitor and/or direct fuel treatment by Forest Service crews, logging companies, contractors, etc.</p> <p>Results: With few timber sales implemented on the Forest, most of the fuel treatment is being conducted in wildland/urban interface areas. All communities adjacent to the Carson National Forest have been mapped for fire risk, thus focusing fuels reduction projects in areas where the fire risk is the greatest. Supporting documentation is located at the Forest Supervisor's office.</p> <p>Forest-wide, the trend is toward increasing fuel loadings, mortality and dense stands of trees. Management options for dealing with these issues are limited. Over the last five years the trend has been toward more restrictions on use of active management, both through application of restrictive standards and guidelines and through limitations outlined in appeals and litigation.</p>

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Physical Environment

Soil and Water 1 Watershed Conditions

Goals: To improve unsatisfactory watershed conditions on 25,000 acres by 2020. As a result of this change, productivity of the land is expected to improve.

Monitoring: Improvement of watershed on the Forest is based on certain activities that will increase or enhance ground cover and improving watershed condition. These activities include prescribed burning, converting sagebrush to native grasses and forbs, improving livestock distribution on grazing allotments, thinning densely stocked forested stands, installing sediment retention structures, and implementing proper grazing management.

The Forest Plan monitoring plan identifies sampling of percent ground cover every three years as specified in *Terrestrial Ecosystem Survey Handbook*, Chapter 8 as the method for monitoring watershed conditions. Samples are to be taken randomly within the Forest. Each point sampled can fall into one of two classes (a) unsatisfactory watershed condition or (b) satisfactory or better watershed condition. This method was not used in FY 2004.

Results: Activities that improved Forest watershed conditions were accomplished on over 5,000 acres in FY 2004. The trend in the types of projects proposed on the Forest is towards improving watershed conditions and being light on the land. Even the wildland/urban interface projects proposed in the coming year involve primarily thinning and prescribed burning. Supporting documentation is located at the respective ranger districts. A detailed summary of district activities is attached to this report.

Some Highlights of watershed Improvement work

Fiscal Year	2000	2001	2002	2003	2004
Road Maintenance (miles)	459	243	476	431	143
Road Obliteration (miles)	45	43	8	20	0
Re-seeding (Acres)	110	50	3,000 (Montoya fire)	0	500
Sagebrush conversion (Acres)	650	400	200	0	1,200
Thinning (acres)	300	1,486	630	966	1,898
Prescribed burning	7,388	1,010	4,770	3,915	2,595

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Summary for Year 2004

Camino Real Ranger District

- Continued the Rio Pueblo NEPA analysis for permit re-issuance.
- Range readiness and forage utilization monitoring was conducted on all 15 allotments. This monitoring resulted in a deferred entry of one allotment.
- Adjustments in entry dates and permitted cattle numbers we made in the following allotments due to vegetative condition, management objectives and drought conditions: Black Lake (60 percent), Capulin (29 percent), Luna-Chacon(49 percent), Rio Chiquito (36 percent), Rio Pueblo (61 percent), Santa Barbara(40 percent), Trampas (35 percent), and Tienditas (33 percent). District-wide cattle grazing was reduced 39 percent and bull grazing reduced 43 percent.
- Several allotments were stocked voluntarily at percentages under allowed capacity due to drought conditions and lack of available forage and water.
- Grazing utilization standards of 40% use in key forage areas and 4-6" stubble height in the riparian zones continued to be used in all 15 grazing allotments.
- Maintained 38.5 miles of road district-wide (FR 116,714,156,697,76,437,10 and 703).
- Continued the implementation of Turkey Park, Entranas 2002, Canada Maria, Ruedas, Ojito, West Entranas, Entranas 2000, Llano Abeyta, Pot
- Creek/Vallecitos, Bear Mountain, Arellano, El Valle, Tienditas, Zapato, OjosRyan, Escarrodio, Cejita Mesa, La Joya and Shady brook thinning projects. These projects seek to improve watershed conditions through thinning of overcrowded stands, increasing herbaceous vegetation, using prescribed fire to reduce fuel loadings and reduce the risk of a running crown fire, and obliterating un-needed roads and trails. These projects will improve watershed condition on approximately 2100 acres.
- Monitored the effectiveness of dozer line and safety zone rehabilitation that occurred on NFS lands.
- Participated as interagency members of the Encebado Burned Area Emergency Response team. Provided an update to the incoming Tribal government on the status of burn rehabilitation activities to date and discussed further rehab needs with members of the War Chiefs Office.
- Accomplished 855 acres of prescribed burning and 59 acres of pile burning on the District
- Accomplished 507 acres of pre-commercial thinning. The objective of these treatments was to reduce hazardous fuel loading and improve and enhance watershed conditions and wildlife habitat. Some slash was scattered which will allow for native plant regeneration.
- Completed the environmental analysis for the Angel Fire Wildland Urban Interface Project. This analysis will guide fuel reduction treatments on areas adjacent to the community of Angel Fire.
- Completed the environmental analysis for the Borrego Mesa Fuel Reduction Project. This analysis will guide fuel reduction treatments on 450 acres adjacent to

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the communities of Penasco, Vadito and Pot Creek.

- Resurfaced parking areas and trailheads with road base at La Junta Canyon Trailhead, Osha Fisherman Parking Area, Amole Canyon Day Use Area, and Elliott Barker Trailhead.
- Ten percent trail projects were completed by Rocky Mountain Youth Corps on the Comales Trail, Elliot Barker Trail, and South Boundary Trail (10 weeks of labor).
- Approximately 15 miles of trail improvements were made.
- OHV closure on Trai119A, approximately 1.75 miles, for erosion and safety concerns.
- Trail maintenance (erosion control maintenance) and OHV closure on Trail 30.
- Trail sign installation to designate motorized and non-motorized use on approximately 50 miles of trail district-wide.
- District personnel visited school children ages K-6 in Penasco, Taos, and Vadito. The purpose of the visit was to educate youth about fire prevention, the dangers of wildfires and how fire can be used as a management tool. Nine schools were visited and approximately 600 students participated in the program.
- Post treatment monitoring of fuel reduction activities at La Joya WUI was initiated by installing permanent plots and photo points. Silvicultural and fuel reduction objectives were monitored by monitoring leave trees and desired basal area on approximately 288 acres.
- Completed the watershed assessment of the Taos Canyon (Rio Fernando de Taos) area. This assessment covers a 6th code watershed (approximately 43,486 acres) within the Rio Grande del Rancho 5th code watershed area. This assessment will be used to guide future management of this area with regard to fuel reduction activities, silvicultural treatments, watershed improvements, grazing management, road and access management and wildlife habitat improvements. It will also serve as a baseline to effects analysis.

Canjilon Ranger District:

- Completed environmental analysis for the Mogotito grazing allotment.
- Completed Allotment Management Plan for the English Allotment.
- Range readiness and forage utilization monitoring was conducted in all 12 allotments.
- Rested the Canjilon Creek sheep allotment for the entire grazing season.
- Adjustments in entry dates and permitted cattle numbers were made in 6 allotments due to vegetative conditions, management objectives and drought conditions: Canjilon (23 percent), Cebolla (15 percent), Nutrias (27 percent), Jarosa (35 percent), Mogote (14 percent), and Mogotito (9 percent). District-wide cattle grazing was reduced 16 percent and sheep grazing reduced 86 percent.
- Type converted 620 acres of sagebrush by brush-chopping and seeded 500 of the treated area with native grasses in the Huckaby pasture of the Cebolla Allotment.
- Cleaned out and reconstructed two earthen stock tanks in the Cebolla Allotment to increase capacity for water and silt and aid in better livestock distribution.
- Allotment boundary fences were inspected prior to cattle entry to facilitate

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adherence to scheduled grazing rotations.

- Constructed livestock handling corral in Madera pasture of the Mogote allotment. This improvement allows the District to eliminate use of the Lorenzo Stock Tank water lot as a handling corral.
- Constructed 3 Y2 miles of new pasture fence and installed 2 cattle guards in the English Allotment. This increased the number of pastures within the allotment from 4 to 5 in accordance with the Allotment Management Plan for the English Allotment and permit re-issuance NEP A conducted in 2003.
- Performed road maintenance on 7 miles of road district wide (FR 137 and 724).
- Cleaned out four cattle guards district wide.
- Burned Area Emergency Rehabilitation and National Fire Plan Restoration:
 - Inventoried the Montoya burned area for invasive weeds.
 - Removed invasive weeds (by hand) on 15 acres within Montoya burned area.
- Recreation Management and Improvements:
 - Installed 1 Rom Tech vault toilet at Trout Lakes Campground and 5 Rom Tech vault toilets at Canjilon Lakes Campground.
- Prescribed burned 450 acres in the Ponderosa pine vegetation type in the Huckaby Pasture of the Cebolla Allotment for fuel reduction and wildlife habitat improvement.
- Mechanically thinned a total of 267 acres (170 acres of pinyon-juniper in Daggett fuel wood area, 70 acres in Marcos fuel wood area and 27 acres in Mesita fuel wood area).
- Performed heavy maintenance on 10 wildlife drinkers district wide.
- Hosted the annual Fishing Fiesta at Canjilon Lakes. This is a cooperative effort with the BLM, NM Game and Fish Department, Forest Service and many other sponsors. The target audience is children ages 3 and up. The objective is to provide the opportunity for kids to be exposed to environmental issues and learn about fisheries, macro invertebrates, and aquatic habitats. Approximately 170 children and their parents participated.

El Rito Ranger District:

- Combined the Cano Allotment and San Gabriel Allotment Environmental Analysis' into one analysis now called the Cano/San Gabriel Allotment Analysis. This analysis is expected to be completed in FY 2005.
- Adjustments in entry dates and permitted cattle numbers we made in the following allotments due to vegetative condition, management objectives and drought conditions: Cano (10 percent), Comanche Sheep (42 percent), El Rito Lobato East (73 percent), El Rito Lobato West (60 percent), San Gabriel (4 percent), Jarita Mesa (35 percent), Alamosa (35 percent), and Salvador Complex (52 percent). District-wide cattle grazing was reduced 41 percent and sheep grazing reduced 60 percent.
- Gathered 20 wild horses from the Jarita Mesa Wild Horse territory during March 2004. 19 were adopted by the general public and 1 horse was retained by the El Rito Ranger District.
- Performed road maintenance on 20 miles of road district wide (FR 121,559 and

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137).

- Decommissioned 11.3 miles of forest roads district wide in the El Rito Creek watershed (337GI, 337G4, 337G5, 337G6, 337G7, 337G8, 337GIO and 337GII).
- Approximately 600 acres of the "Ancones Flats" area of the Alamosa allotment had sagebrush removed with a brushhog. This was done with a 319 grant from NMED. 1.5 miles of fence reconstruction was completed between the Jarosita and Salvador Complex Allotments. 1.5 miles of fence reconstruction was completed between the Cano and Salvador Complex Allotments.
- Performed pre-commercial thinning on 281 acres for fuels reduction and forest health. Pre-commercial thinned 20 acres in the Alamosa area, 40 acres in the Spring Creek area, and 221 acres in the Petaca/Las Tablas area and lop and scattered 27 acres in the Spring Creek area.
- District-wide Dead and Down Fuelwood cutting and gathering across the district of all species are taken under this sale. Sale -Includes personal use fuelwood. Only dead standing pinon or down trees
- Free-Use Pinyon Pine Permits -Issued free-use personal use fuelwood permits for 5 cords per household of standing or down dead pinyon pine. Designated area was the southwestern portion of the El Rito Ranger District.
- Pine Angel Personal Fuelwood Sale -Approximately 30 acres. This activity was a personal fuelwood cutting and gathering area for designated green ponderosa pine trees.
- Ojito Viga Sale -Approximately 20 acres. This activity was a commercial viga product sale, cutting and gathering area for designated green ponderosa pine trees (viga material).
- Accomplished 338 acres of pre-commercial thinning to improve forest health in the Felipito contract. This includes 52 acres from Kiowa Prospects Timber Sale, 141 Acres in the Felipito TSI area, and 145 acres in the One-Ten TSI area.
- Completed the Environmental Analysis for the Ensenada Forest Health Project. Project is to include 1781 acres of mechanical treatment including precommercial and commercial thinning, 1770 acres of broadcast burning, 75 acres of pile burning, and the closure of 7.5 miles of road.
- Range Readiness and forage utilization monitoring was conducted on all of the El Rito Ranger Districts 10 grazing allotments
- Adjustments in permitted livestock numbers were made in 8 allotments due to drought conditions
- Several Forest Service personnel at the El Rito Ranger District assisted in the annual fish fiesta at Canjilon Lakes on the Canjilon Ranger District. We had several booths focusing on environmental education.

Jicarilla Ranger District

- Completed the Jicarilla Territory Wild Horse and Burro Environmental Analysis. This analysis will allow for management of wild horses and burros at population levels that can be sustained by the grazing resources within the territory. Initiated the Wild Horse and Burro gather in early November, 2004. We anticipate

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gathering 30 horses for removal and adoption by December 31, 2004.

- Did not allow grazing of pennitted livestock on the Carracas and Bancos allotments in 2004.
- The Cabresto allotment was stocked at 20% of permitted numbers for 30 days.
- The Vaqueros allotment was stocked at 8% of permitted numbers for the entiregrazing season.
- The Laguna Seca allotment was stocked at 80% of permitted numbers for the entire grazing season.
- The Valencia allotment was stocked at the full permitted numbers, but entry onto the allotment was delayed by 2 weeks to allow for range readiness objectives to be met.
- District-wide cattle grazing was reduced 70 percent.
- Placed sandstone road surfacing on approximately 2.8 miles of forest roads to reduce erosion (FR 218,309,310,311,312) and 2.8 miles of access roads for oil and gas development (Rosa 287, Rosa 284, Rosa 283, Rosa 297, Rosa 309, Rosa 375, Rosa 372 and Shalk 32).
- Installed 27 culverts district-wide to improve road drainage. This improvement was made through the on-going partnership with the Jicarilla Roads Committee and oil and gas lease holders.
- Constructed 9 sediment retention basins in conjunction with new road development to access well pad locations.
- Constructed 9 sediment traps in American Canyon, resulting in improvement of 1mile of stream course by retention of sediment.
- Constructed one (1) sediment trap in association with new gas well on well pad 70N (T27N,R4W,S4)
- Completed road location and condition inventory of all roads on the District.
- Performed a Road Analysis Process (RAP) to inform travel management decisions related to district needs for the Bancos, La lara, Cereza Canyon, Carracas and Tapicito watersheds.
- Re-established cottonwoods and willows by planting and building protective exclosure fences on 3 acres in La lara Canyon.
- Burned Area Emergency Response:
 - Aerial seeding of 40 acres on the Orcones fire for the purpose of for erosion control.
 - Prescribed bum of 5 acres of thinning slash for meadow maintenance and wildlife habitat improvement at Cabresto Mesa.
 - Thinned 120 acres at Anselmo Bench to reduce hazardous fuel levels.
 - Thinned 17 acres at the Carracas Mesa Administrative Site.
 - Thinned and hand piled 32 acres around Cedar Springs Campground.
 - Thinned 114 acres at Manuel Canyon.
 - Made needed improvements and repairs to existing sanitary facilities at Cedar Springs Campground and Buzzard Park Campground.
 - Approximately 120 miles of road maintenance was performed through our continued partnership with the oil and gas companies via the Jicarilla RD Roads

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Committee. In addition, about 150 miles of lease roads are maintained at least once a year. The purpose is to provide needed road maintenance on a timely basis to access gas well locations and minimize resource impacts from road use.

- Worked with the San Juan Basin Oil and Gas Subcommittee, continuing discussions for alternative discharge procedures for treating produced water and discharge. Collaborative process with BLM, NMOCD, NMED, State Engineers Office, and oil and gas companies.
- Working with the San Juan Basin Oil and Gas Subcommittee, established pilot test plots for re-vegetation of gas well locations and pipelines, in a collaborative process with BLM, NMSU Extension Service, and oil and gas companies. Monitoring these test plots continues.
- The Farmington Field Office of the BLM and the Jicarilla Ranger District continued their Interagency Agreement for Fire Suppression and Fuels Management. The two agencies work jointly on all fuels and fire suppression activities following the guidance of the surface management guidelines.
- Participated in the 2-day water fair sponsored by the San Juan Water Commission. Program content focused on water developments for natural resource management needs. Their intended audience was approximately 250 elementary school children (grades 5-6) in the Four Corners area schools.
- District Wildlife Biologist attended 2 day workshop in revegetation techniques: High Altitude Revegetation Summer Tour.
- Implemented the Gas Buggy Clean up project in partnership with Department of Energy. Diesel contaminated production mud was removed and replaced with uncontaminated soil. Approximately 1000 cubic yards of contaminated soil material was removed and land farmed at Enviro-tech. This activity was permitted through the NPDES permit process by DOE.
- Cleaned up one (1) condensate spill on Patina Champlain #1 by excavating contaminated soil and land farming material to allow volatilization of the contaminants.
- Cleaned up one (1) XTO condensate spill at Valencia Canyon Unit #14 by excavating contaminated soil and land farming material to allow volatilization of the contaminants.
- Implemented best management practices at well pad locations by placing logs and slash created by the development in a crosswise pattern below roads and well pads to provide protective cover and minimize and contain sediment. Amended Conditions of Approval for oil and gas well development to encourage using native vegetation for erosion control on gas well locations.
- The Minerals Technician holds pre-work construction meetings and conducts construction monitoring to ensure BMP's are incorporated and followed for various APD's as stated in the Conditions of Approval.
- District Staff are conducting periodic inspections of oil and gas developments (well pads, pipelines and associated infrastructure) to ensure Conditions of Approval are being implemented.

Tres Piedras Ranger District

- Completed environmental analysis for the Spring Creek Allotment.
- Continued environmental analysis for the Tusas and Tio Grande Allotments.

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These analyses have been deferred due to funding shortages.

- Constructed 0.75 miles of pasture fence in the San Antone allotment. Constructed 1.25 miles of pasture fence in the Spring Creek Allotment. Constructed 2.0 miles of pasture fence in the Apache Allotment.
- Monitored forage utilization and livestock distribution on 8 of 17 grazing allotments.
- Adjustments in entry dates and permitted cattle numbers we made in the following allotments due to vegetative condition, management objectives and drought conditions: Apache (25 percent), Sublette (21 percent), Lagunitas (15 percent), San Antone (18 percent), Tio Grande (13 percent), Tusas (25 percent), and Spring Creek (15 percent). District-wide cattle grazing was reduced 31 percent and sheep grazing reduced 29 percent.
- Coordinated range monitoring and administration activities on the West Side of the Carson NF (El Rito, Canjilon and Tres Piedras RD's) to best meet administration and management needs due to staffing shortages and increased workload. Focus for administrative activities in FY 2004 was at the El Rito RD.
- Delayed entry of livestock on 2 grazing allotments (Tusas Allotment 5 day delay and Spring Creek 6 day delay).
- Maintained 30.5 miles of road district-wide (FR 712, 1893,421 and 87).
- Watershed Improvements/Wetland Management and Protection:
- Implemented water diversion at Stewart Meadows as part of the waterfowl habitat improvements and wetland restoration.
- Completed Boreal Toad survey in Lagunitas grazing allotment.
- Completed 2 miles of top rail fence maintenance along Stewart Meadows Wildlife viewing area
- Implemented the following fuel reduction projects: Elmo/Gravel- thinned and piled 200 acres, Red Mesa -thinned and piled 45 and Dry Lakes I –broadcast burned 1,285 acres.
- Conducted planning and environmental analysis for the following projects: Dry Lakes II Ecological Restoration -3,823 acres, Maquinitas Vegetation Management Project -8,150 acres (planning effort deferred to 2005 but continued with fuels data gathering and monitoring).
- Performed maintenance and installed signs on trails across the District, including the Cruces Basin, Tony Marquez, Maquinitas and Hopewell trails
- Completed the construction of the Hopewell Lake Campground.
- Issued 56 letters of authorization for recreation prospecting at Placer Creek.
- Hosted a forest work day to implement signing and construction of a portion of the Continental Divide Trail. This work was permitted under NPDES for construction activities.
- Implemented planned activities under the Collaborative Forest Restoration and Community Development grant for the community of Tres Piedras. Major accomplishments were fuel reduction activities on 375 acres (brush piling) and thinning of 200 acres.
- Partnered with the NM Environment Department to develop a wetland restoration grant proposal for the Stewart Meadows area. Met with representatives from NMED-SWQB and the Upper Rio Grande and Conjeos Watershed Groups to plan

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public meetings to discuss this project and watershed group formation opportunities.

- Habitat protection signs were placed in several areas of the District, including the Stewart Meadows.
- The District participated in presentations for Game Management Unit 52 to the Town of Taos, Village of Chama and Tres Piedras. This is one of three pilot studies statewide designed to identify and address the elk-livestock issues. The public meetings were used to provide recommendations for changes to the 2004-2006 hunt season dates.

Questa Ranger District

- Range readiness and forage utilization monitoring was conducted in all 16 allotments -stocked and non-stocked.
- Adjustments in entry dates and permitted cattle numbers we made in the following allotments due to vegetative condition, management objectives and drought conditions: Arroyo Hondo (17 percent), Deer Creek (50 percent), San Cristobal (57 percent), La Lama (80 percent), Midnite-Mallete (50 percent), Rito Secundo (25 percent) and Valle Vidal (20 percent). District-wide cattle grazing was reduced 40 percent and sheep grazing reduced 100 percent.
- The following grazing allotments had non-use in 2004 (Black Copper, Red River, Columbine, Goose Creek, Sawmill Park, La Cal Basin, Lake Fork/Baldy, Main Fork).
- Maintained 52.7 miles of road district-wide (FR 1950 and 134).
- Collaborated with the Town of Red River to secure a State TEA-21 grant for recreational road improvements in the Goose Creek and Pioneer Canyon areas.
- Planning, engineering survey and design of improvements underway for Goose Lake and Pioneer Roads. Implementation to start during the spring of 2005.
- Temporarily closed Middle Fork Road to allow for much needed heavy road maintenance and drainage improvements. Initiated the reconstruction of Middle Fork parking lot, which will improve drainage and improve lot surface. Diverted spring out-flow that was currently running 500' down Middle Fork road directly into Middle Fork Creek via a culvert.
- Increased barrier installation, law enforcement activities and signing to address ORV use and resulting resource damage from this activity. Completed a comprehensive inventory and programmatic OHV plan for the Red River watershed. Increased administration, education and enforcement efforts which resulted in a notable decrease in OHV impacts this past year.
- Worked closely with Amigos Bravos to secure a 319 Grant that will fund an OHV enforcement officer and fund many future OHV management activities including on-the-ground improvements and restoration of OHV damaged areas.
- Worked closely with Quivira Coalition on their 319 Grant to identify road/run-off issues on the Valle Vidal. Implemented approximately 4 miles of road obliteration in the Chuck Wagon and Little Costilla drainages and improvement of drainage structures on remaining administrative access roads.
- Completed inventory and geo-positioning of roads on the Questa Ranger District.
- Road location and condition surveys were entered into the Forest INFRA data

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base.

- Constructed several riparian vegetation enclosures along Comanche Creek involving NM Trout, Trout Unlimited, under Quivira Coalition's 319 Grant and the Rocky Mountain Youth Corp. This involved several hundred hours of volunteer time.
- Hosted three riparian and environmental education workshops/training sessions on the Valle Vidal.
- Coordinated with Taos Ski Valley and Red River Ski Area to implement on-going watershed improvements at the ski areas.
- Coordinated with the Philmont Scout Ranch to repair several watershed improvements installed after the Ponil Fire on the Valle Vidal.
- Constructed 5 new corrals to minimize watershed impact resulting from horse use in Cimmaron Campground.
- Placed surfacing material at campsites in Cimmaron Campground to minimize impacts from use.
- Completed heavy maintenance on 0.5 mile of hiking trail to and reconstructed a foot bridge that crosses the Red River at the confluence of the Rio Grande.
- Conducted trail maintenance on approximately 10 miles of wilderness trails.
- Cleaning and maintenance of existing drainage structures, re-construction of water bars, and trail clearing were the primary improvements made.
- Completed installation of new toilets at Cabresto Lake, Middle Fork parking area, and at Taos Ski Valley campground. Most all of the replacement toilets are in the area of streams or lakes.
- Completed NEP A analysis on approximately 8,000 acres of wildland urban interface projects in the Questa and Lama areas. Implemented a portion of the proposed action over 150 acres to thin forest stands to provide for defensible areas near communities. This action will minimize the potential for stand replacement wildfires, subsequent property loss and watershed damage.
- Awarded contract for 100 acres of mechanical thinning, slash piling and chipping on the Upper Red River Wildland Urban Interface Project.
- Entered partnership with Rocky Mountain Youth Corp to complete thinning and removal of dead pinon trees along a 7 mile stretch of State Highway 522. This project reduces fuel loading on approximately 550 acres.
- Initiated the NEP A process for the Pioneer Canyon and Red River Ski Area WUI. Analysis to be completed in the first quarter of FY 2005.
- Re-constructed the protection fence at Ring Town cemetery in Seally Canyon. This structure was destroyed by the Ponil Fire in 2002. Replacement of this structure will prevent impacts to the historical site by preventing trampling and other damage to grave sites and markers.
- Continued the monitoring of rock and erosion cloth channel structures in Hart Canyon. These structures were constructed to provide for channel stability, sediment deposition and to minimize new erosion resulting from the effects of wildfire.
- Monitored the condition and function of large sediment control structures in Seally, Hart and Bonito Canyons.

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- Maintained and re-constructed numerous rock and cloth erosion control structures in Seally Canyon and tributary drainages to provide for continued function.
- Conducted an inventory of invasive weeds within the burned area. This inventory was conducted with geo-positioning to allow for input into the Forest GIS database.
- Performed shallow groundwater monitoring of diesel-contaminated soil at Shuree Ponds, in accordance with a multi-year remediation process.
- Continued our interaction with numerous State and Federal agencies and MolyCorp Inc. on activities related to the mine closeout plan, proposal for SuperFund listing of the facility and investigative studies related to these actions.
- Continued our coordination with USGS personnel conducting a groundwater investigation and monitoring in the upper Red River watershed.
- Worked closely with the Quivira Coalition, NMED-SWQB, Valle Vidal Grazing Association and other partners on a Watershed Restoration Action Strategy and implementation of riparian improvement, road obliteration and road drainage projects in the Comanche watershed under a 319(h) grant.
- Coordinated and cooperated with the Town of Red River in securing a NM Parks and Trails Grants for maintenance on several of our high clearance roads.
- Village of Questa secured a Forest Restoration Grant for approximately \$\$300,000 to implement fuel reduction (WUI) treatments authorized by the Questa/Lama Fuel Reduction Project. Grant monies will be used to implement treatments on the Forest lands adjacent to the community.
- Continued our participation in the Red River Watershed Group. Participated in meetings and input and review of the Watershed Restoration Action Strategy (WRAS).
- The Questa RD supported efforts by Regional Office staff to develop the Engineering Evaluation and Cost Assessment (EE/CA) for future clean-up of abandoned and in-active mines in Bitter Creek, Pioneer Canyon, Placer Creek, Marlette and Upper Watershed. A preliminary report outlining remedial actions has been developed and reviewed by District and Forest Staff to develop a range of treatment alternatives and recommend a proposed action for each mine site, most of which have historical and cultural significance. The EE/CA builds upon the previous three seasons of sampling at these mine sites, laboratory analysis and interpretation of that data.
- Began construction of a new District Office complex. This project was permitted under NPDES for construction activities. Best Management Practices are in place to control stonn runoff and drainage within the compound site.
- Hosted the NM Riparian Council field tour of the Valle Vidal. Many of the structural and non-structural treatments implemented in the Ponil burned area rehabilitation and other stream and wetland restoration projects were reviewed. Forest Staff participated and acted as tour guides for the group.

SUPERVISORS OFFICE

- Supported the Regional BAER effort by assisting the Lincoln NF with damage assessment and rehabilitation plan preparation for the Peppin Fire.
- Supported the plan revision and Forest Land Management and Resource Plan

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	<p>amendment for the Valle Vidal, in response to a request for oil and gas leasing activities.</p> <ul style="list-style-type: none">▪ Developed Statements of Work for surface water, riparian and groundwater investigation needs with assistance from the Regional Office and U.S. Geological Survey.▪ Forest Staff supported the watershed assessment of the Taos Canyon (Rio Fernando de Taos) area (see Camino Real RD accomplishments for detail).▪ Supported the Regional Water Planning efforts as a member of the Taos County Regional Water Planning Steering Committee in cooperation with Taos County and other stakeholders.▪ Hosted staff from the NM Environment Department at a Forest Leadership Team meeting. The purpose of the briefing was to inform forest leadership of recent changes in NPDES permitting requirements.▪ Coordinated a meeting with NM Environment Department Staff and Jicarilla RD staff to discuss future oil and gas leasing, environmental analysis (NEP A) and NPDES issues.▪ Continued analysis and development of the Invasive Plants EIS in cooperation with the Santa Fe NF. A decision is anticipated in early FY 2005.▪ Continued inventory of forest roads and development of INFRA roads database.▪ In 2004, approximately 660 miles of road was geo-positioned in the CanjilonCreek and Rio Nutrias-Rio Chama 5th code watersheds. This brings the aggregate total of geo-positioned road inventory to 2,891 miles in 16 5th code watersheds across the forest since 2001.▪ Maintained approximately 143 miles of forest roads (see Ranger District Accomplishments for specific road segments maintained).
Soil and Water 2 Best Management Practices	<p>Goals: Production of water from forestlands will meet State water quality standards.</p> <p>Monitoring: Established designated qualified personnel check Best Management Practices (BMP) (i.e., seeding disturbed areas, water barring roads, etc.) for implementation on the ground. Best management practices monitoring follows Regional evaluation guidelines and procedures.</p> <p>Results: The application of BMPs is standard procedure with any ground disturbing activity undergoing environmental analysis. Implementation of BMPs is the responsibility of each district ranger. Field trips are taken to validate on-site BMP implementation. It is recommended that more emphasis be put on BMP training and the development of a BMP monitoring program to track actual implementation and effectiveness. Several water quality projects have been implemented on the Forest:</p> <ul style="list-style-type: none">▪ Baseline and existing condition information (primarily turbidity) are being collected in cooperation with the New Mexico Environment Department (NMED) for several creeks within the Carson National Forest boundary. Collected information will help determine whether these reaches should be removed from the State's 305b list for non-attainment. Supporting documentation is located at the respective ranger station.▪ Identification of existing and potential non-point source water pollution on the Carson is ongoing and helps determine where watershed work would provide the

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	most significant results.
Soil and Water 3 Roads	<p>Goals: To assure that Best Management Practices (BMP) are implemented in all phases of road design, construction and maintenance to minimize erosion and maintain on-site productivity and water quality. Also to assure that density is not exceeded.</p> <p>Monitoring: Road design, construction, maintenance and density.</p> <p>Results: BMPs are standard mitigation measures when any road construction is proposed. Analysis of the proposal and alternatives are usually conducted with the assumption that BMPs are integrated into the activities. No projects with new road construction were implemented in 2004. Much of the road maintenance performed on Forest roads is to apply BMPs (e.g., water bars, crowning, resurfacing, etc.) in order to minimize erosion and maintain on-site productivity and water quality. Supporting documentation is located at the respective ranger districts.</p> <p><u>Camino Real Ranger District</u></p> <ul style="list-style-type: none">▪ Maintained 38.5 miles of road district-wide (FR 116,714,156,697,76,437,10 and 703). <p><u>Canjilon Ranger District:</u></p> <ul style="list-style-type: none">▪ Performed road maintenance on 7 miles of road district wide (FR 137 and 724).▪ Cleaned out four cattle guards district wide. <p><u>El Rito Ranger District</u></p> <ul style="list-style-type: none">▪ Performed road maintenance on 20 miles of road district wide (FR 121,559 and 137).▪ Decommissioned 11.3 miles of forest roads district wide in the El Rito Creek watershed (337GI, 337G4, 337G5, 337G6, 337G7, 337G8, 337GIO and 337GII). <p><u>Jicarilla Ranger District</u></p> <ul style="list-style-type: none">▪ Placed sandstone road surfacing on approximately 2.8 miles of forest roads to reduce erosion (FR 218,309,310,311,312) and 2.8 miles of access roads for oil and gas development (Rosa 287, Rosa 284, Rosa 283, Rosa 297, Rosa 309, Rosa 375, Rosa 372 and Shalk 32).▪ Installed 27 culverts district-wide to improve road drainage. This improvement was made through the on-going partnership with the Jicarilla Roads Committee and oil and gas lease holders.▪ Constructed 9 sediment retention basins in conjunction with new road development to access well pad locations. <p><u>Tres Piedras Ranger District</u></p> <ul style="list-style-type: none">▪ Maintained 30.5 miles of road district-wide (FR 712, 1893,421 and 87). <p><u>Questa Ranger District</u></p>

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- Maintained 52.7 miles of road district-wide (FR 1950 and 134).
- Collaborated with the Town of Red River to secure a State TEA-21 grant for recreational road improvements in the Goose Creek and Pioneer Canyon areas. Planning, engineering survey and design of improvements underway for Goose Lake and Pioneer Roads. Implementation to start during the spring of 2005.
- Temporarily closed Middle Fork Road to allow for much needed heavy road maintenance and drainage improvements. Initiated the reconstruction of Middle Fork parking lot, which will improve drainage and improve lot surface. Diverted spring out-flow that was currently running 500' down Middle Fork road directly into Middle Fork Creek via a culvert.
- Increased barrier installation, law enforcement activities and signing to address ORV use and resulting resource damage from this activity. Completed a comprehensive inventory and programmatic OHV plan for the Red River watershed. Increased administration, education and enforcement efforts which resulted in a notable decrease in OHV impacts this past year.
- Worked closely with Amigos Bravos to secure a 319 Grant that will fund an OHV enforcement officer and fund many future OHV management activities including on-the-ground improvements and restoration of OHV damaged areas.
- Worked closely with Quivira Coalition on their 319 Grant to identify road/run-off issues on the Valle Vidal. Implemented approximately 4 miles of road obliteration in the Chuck Wagon and Little Costilla drainages and improvement of drainage structures on remaining administrative access roads.
- Completed inventory and geo-positioning of roads on the Questa Ranger District. Road location and condition surveys were entered into the Forest INFRA data base.

Human Environment

Facilities 2

Goals: Travel management objectives will be developed for all Forest Development Roads (FDR) and travelways which will further determine and verify which are needed and should be included or remain on the FDR System, which are needed only periodically and should be closed, and which should be added to the obliteration list. New construction of Forest Development Roads is primarily for timber sales and oil & gas development. Approximately 70% of these roads should be local terminal functional classification and should be closed promptly after resource management activities have ended.

Monitoring: A schedule to complete an inventory of all roads on the Carson NF is in place. A revised transportation plan for the Carson will be put together upon completion of the inventory. In FY 2002, an inventory was performed on level 3, 4 and 5 roads. The result will be a Forest-wide Road Analysis (RAP) for these arterial and collector roads. The RAP was completed in April 2003. In addition over 2,891 miles of road, levels 1 and 2, have been inventoried, documenting conditions of road surface, drainage, sight distance and proper signing. It is planned to continue the inventory in FY 2005. Facility, road, bridge and dam maintenance monitoring is ongoing, although minimal. It is of a reactive nature, rather than a proactive one.

Results: No new road construction or reconstruction occurred in 2004. Roads have been moved out of meadows and canyon bottoms where feasible, and riparian

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	function has been improved with structural and nonstructural improvements. Supporting documentation is located at the Forest Supervisor's office.
Recreation 1	<p>Goals: Provide the opportunity for the public to obtain a variety of recreation experiences by managing the natural resource setting and the activities that occur within it. Provide a spectrum of opportunities on the Forest from Semi-primitive to Urban, with emphasis on the less developed end of the spectrum. To offer a balanced level of developed and dispersed recreation experiences. Demand for dispersed recreation will be within capacity. Quality of experience will increase due to more intensive management.</p> <p>Monitoring: Effects on dispersed recreation are evaluated in the majority of environmental analyses for project proposals – whether or not they are recreation related. Changes to the Recreation Opportunity Spectrum (ROS) class are assessed and avoided if possible.</p> <p>Results: No decisions on site-specific projects in FY 2004 have caused an analysis area's ROS class to change.</p>
Recreation 2	<p>Goals: The Forest will offer a wide range of opportunities for developed sites in the public and private sector to support recreationists, to provide barrier-free access, and to implement recreational strategies.</p> <p>Monitoring: Assessment of goal achievement for the recreation program is based on professional judgment by recreation specialists, public comments and information from Regional, Forest and District recreation managers.</p> <p>Customer satisfaction on how well we are managing the Forest is monitored through evaluation cards, newspaper articles and comments from recreation fee envelopes and walk-in visitors. Developed campgrounds and picnic areas are monitored at least on a weekly basis during the summer months by Forest Service law enforcement, district personnel, campground hosts and/or concessionaires, as well as through cooperative agreements with state and county law enforcement. These comments provide input on the conditions of developed recreation sites, the presence of user conflicts and public safety problems. Supporting documentation is located at each ranger station or in the Forest Supervisor's office.</p> <p>Taos Ski Valley (TSV) and Red River Ski Area (RRSA) operations are monitored at least once a week during the winter by the Questa snow ranger. Sipapu Ski Area operations are monitored at least once a month. Site inspections by Forest Service lift engineers are made at least once a season at each ski area. Supporting documentation for monitoring operations at TSV and RRSA is located at the Questa Ranger Station and at each ski area. Supporting documentation for monitoring operations at Sipapu is located at the Camino Real Ranger Station and at Sipapu Ski Area. Supporting documentation of lift inspections is located at the Southwestern Regional office in Albuquerque.</p> <p>The National Visitor Use Monitoring Project for the Carson National Forest was completed and placed in the public domain in June, 2004. It is available</p>

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electronically at <http://www.fs.fed.us/recreation/programs/nvum/>.

Results: Recreation use and demand appears to be experiencing a small, steady growth. Use is concentrated at developed sites, streams, rivers, lakes, wilderness and backcountry areas.

Several nearly barrier-free recreational facilities have been provided in recent years at Santa Barbara Campground, Echo Amphitheater Picnic Area and Hopewell Lake Campground.

For the past several years Hopewell Campground was closed for reconstruction. It was reopened for the 2002 summer season and the area continues to experience steady use. Santa Barbara Campground was reopened for the 2004 summer season. This campground has experienced steady use.

Monitoring ski area operations has not exposed any noncompliance or safety violations.

Skier visits to respective ski areas.

Ski Season	Taos Sky Valley	Red River Ski Area	Sipapu Ski Area
1999-2000	173,031	98,351	14,068
2000-2001	248,814	104,012	14,573
2001-2002	201,113	107,840	14,300
2002-2003	196,162	97,874	28,447
2003-2004	Not available	Not available	Not available

The Enchanted Forest continues to provide cross-country skiing opportunities for approximately 5,000 skiers per year depending on snow conditions. Snow conditions or lack of snow also influences the number of skiers. Red River Ski area and Sipapu Ski Area both permit snowboarding with the snowboarders reflected in the number of skiers.

Overall, skiers are satisfied with the conditions of the four ski areas on the Carson, although a movement by the snowboarding community to open Taos Ski Valley to snowboarding surfaced in 1999. The snowboarding community through 2004 continued to pressure Taos Ski Valley regarding allowance of snowboarding. This decision is up to the ski area operator. Many comments from skiers approve of the Ski Valley's decision to remain closed to snowboarding. This issue continues to resurface but the operators are adamant on not allowing snowboarders. This decision helps this ski area to develop its niche in the skiing industry.

Recreation 3

Goals: Help the public enjoy their Forest visit and instill an understanding of the

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	<p>resources and uses of their National Forests. Wildlife recreation use will increase by 183 percent by the end of the planning period. This, however, is within capacity for this type of use.</p> <p>Monitoring: No specific monitoring of wildlife recreation use has taken place on the Forest. The NM Department of Game and Fish regulates hunting and fishing on the National Forest System lands.</p> <p>Results: Inquiries and comments received at the ranger stations and the Forest Supervisor’s Office verify that many visitors come to see wildlife through active bird watching, camping, hiking and cross-country skiing.</p>
Recreation 4	<p>Goals: All developments are high quality and well maintained. They fill the needs of the users.</p> <p>Monitoring: Assessment of goal achievement for the recreation program is based on professional judgment by recreation specialists, public comments and information from Regional, Forest and District recreation managers.</p> <p>Customer satisfaction on how well we are managing the Forest is monitored through evaluation cards, newspaper articles and comments from recreation fee envelopes and walk-in visitors. Developed campgrounds and picnic areas are monitored at least on a weekly basis during the summer months by Forest Service law enforcement, district personnel, campground hosts and/or concessionaires, as well as through cooperative agreements with state and county law enforcement. These comments provide input on the conditions of developed recreation sites, the presence of user conflicts and public safety problems. Supporting documentation is located at each ranger station or in the Forest Supervisor’s office.</p> <p>Recreation facility construction projects include reviews to ensure contract work meets specifications, environmental assessment requirements, and to monitor how well the design meets user needs. Such reviews have been performed at the Santa Barbara Campground, Echo Amphitheater Picnic Area and Hopewell Lake Campground. Supporting documentation is located at the Forest Supervisor’s office.</p> <p>Results: Customer satisfaction on the condition of developed sites varies depending on the location and the age of the facility. The newest campgrounds, such as Agua Piedra and Hopewell are experiencing positive comments. On the other hand, Taos Canyon facilities are heavily used and sites closest to Taos are frequently vandalized.</p>
Recreation 5	<p>Goals: Establish a full spectrum of trail opportunities, considering all modes of travel, ranging from opportunities fro challenged and adventure to opportunities for people with disabilities, and give special emphasis to the protection, development and management of specially designated areas and trails.</p> <p>Monitoring: Assessment of goal achievement for the recreation program is based on professional judgment by recreation specialists, public comments and information from Regional, Forest and District recreation managers.</p> <p>Results: Non-ATV hunters have been complaining over the increasing use of ATVs</p>

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on the Forest during hunting season. There is little enforcement of ATV use off designated roads and trails. Hunters on the Jicarilla RD complain of the disturbance caused by an increase in gas drilling activity and traffic in their favorite hunting spots.

ATV use in unauthorized areas is becoming a significant problem on the Forest. The development of a transportation plan that designates the type of use on roads and trails is needed. Involvement of the public to resolve issues and educate users is an integral part of designing a new transportation plan.

In addition, the following recreation projects were completed to provide a quality recreational experience on the Forest, while protecting natural resources. Supporting documentation is located at the Forest Supervisor's office.

Forest trail activities

	FY 2000	FY 2001	FY 2002	2003	2004
Trail Maintenance (miles)	40	20	162	28	11
Trail Condition Surveys (miles)	75	50	50	10	0
Trail Reconstruction (miles)	7	7	6	1	0.5

Recreation 6

Goals: Potential wilderness characteristics will be maintained In Management Area 20, in order that the areas can be considered for multiple use or wilderness recommendation when a new plan is prepared in 10 -15 years.

Monitoring: In 1999, the President of the United States initiated the Roadless Area Conservation analysis for all National Forest System (NFS) lands. The Carson National Forest's Management Area 20 includes all inventoried roadless areas identified in the Roadless Area Review and Evaluation II (RARE II), with the exception of a portion allocated for potential expansion of Sipapu Ski Area. The nation-wide Roadless Area Conservation Proposed Rule would prohibit any road building or timber harvesting in most RARE II inventoried roadless areas on NFS lands. The Roadless Area conservation Rules were promulgated in 2000. These rules have been a source of litigation since. Currently the Rules are not being implemented due to litigation. The Roadless Conservation Rule was overturned in the litigation process. However, The Carson National Forest continues to maintain the integrity of the roadless areas pending the outcome of the rule making process or other methods of congressional intent concerning the roadless issue.

Results: For the most part, the implementation of the Roadless Area Conservation proposal and its successor would duplicate protection for Management Area 20 already in place through Forest Plan standards and guidelines.

Recreation 7

Goals: Trails will be reconstructed and maintained at a level that provides public safety and travel and resource protection.

Program Area

Summary of Monitoring Conducted and Evaluation

Monitoring: The assessment is based on professional judgment of recreation specialists, public comments, and information from Regional, Forest and District recreation managers.

Results: Trail use is primarily by recreationists and grazing permittees. Use levels appear to be moderate to heavy with a slight increase depending on the location of the trail and trailhead. Some trailheads provide information about recreational opportunities. In FY 2004, 11 of the 639 miles of trail were maintained and 0.5 miles of trail were reconstructed.

Camino Real Ranger District

- OHV closure on Trail 119A, approximately 1.75 miles, for erosion and safety concerns.
- Trail maintenance (erosion control maintenance) and OHV closure on Trail 30.
- Trail sign installation to designate motorized and non-motorized use on approximately 50 miles of trail district-wide

Questa Ranger District

- Completed heavy maintenance on 0.5 mile of hiking trail to and reconstructed a foot bridge that crosses the Red River at the confluence of the Rio Grande.
- Conducted trail maintenance on approximately 10 miles of wilderness trails.
- Cleaning and maintenance of existing drainage structures, re-construction of water bars, and trail clearing were the primary improvements made.

Many trails do not meet trail standards (clearing, logging out, tread maintenance, signing, nonexistent trail logs, etc.) due to budget/staff limitations. Management decisions regarding acceptable limits, zoning, and resource emphases are often made informally, frequently lacking the support of coordinated plans or professionally established analysis methods.

Wilderness 1

Goals: Maintain an enduring high quality wilderness and provide a quality recreational experience.

Monitoring: The assessment is based on professional judgment of recreation specialists, public comments, and information from Regional, Forest and District recreation managers. Volunteers and/or recreation specialists perform wilderness patrols several times during a summer. Patrols include inspections of trail conditions, dispersed camping areas and outfitter/guide permit use. Supporting documentation is located at each ranger station.

Results: Wilderness use is primarily day-use by recreationists and grazing permittees. Wilderness use is increasing slightly and is primarily concentrated along trails in the Wheeler Peak and Pecos wilderness areas and Columbine-Hondo Wilderness Study Area. Most trailheads provide information about recreational opportunities and wilderness resource conservation issues.

Regular patrols are becoming more infrequent as the number of district employees is reduce. Public complaints about the presence/impacts of cattle grazing on aesthetics

Program Area

Summary of Monitoring Conducted and Evaluation

	<p>and ecosystems have occurred. Many trails do not meet trail standards (clearing, logging out, tread maintenance, signing, nonexistent trail logs, etc.) due to budget/staff limitations. Management decisions regarding acceptable limits, zoning and resource emphases are often made informally, frequently lacking the support of coordinated plans or professionally established analysis methods.</p>
Wilderness 2	<p>Goals: Maintain an enduring high quality wilderness trail system that is a source of minimal resource damage.</p> <p>Monitoring: The assessment is based on professional judgment of recreation specialists, public comments and information from Regional, Forest and District recreation managers.</p> <p>Results: Regular patrols are becoming more infrequent as the number of district employees is reduced each year. Wilderness use is primarily day-use by recreationists and grazing permittees. Wilderness use is increasing slightly. Use is primarily concentrated along trails in the Wheeler Peak and Pecos wilderness areas and Columbine-Hondo Wilderness Study Area. Most trailheads provide information about recreational opportunities and wilderness resource conservation issues.</p> <p>Public complaints about the presence/impacts of cattle grazing on aesthetics and ecosystems have occurred. Many trails do not meet trail standards (clearing, logging out, tread maintenance, signing, nonexistent trail logs, etc.) due to budget/staff limitations. Management decisions regarding acceptable limits, zoning and resource emphases are often made informally, frequently lacking the support of coordinated plans or professionally established analysis methods. Supporting documentation is located at each ranger station.</p>
Wild and Scenic Rivers	<p>Goals: Conduct a Wild and Scenic River eligibility assessment on all river and stream segments on the Carson National Forest and maintain and enhance the outstandingly remarkable values and free-flowing conditions of eligible and designated Wild and Scenic Rivers.</p> <p>Monitoring: Eligibility and classification assessments have been conducted on all ranger districts. These assessments involved an analysis team of field personnel – such as a biologist, hydrologist/soil scientist, recreation specialist, archeologist, and technicians – familiar with the district. A representative from the NM Department of Game and Fish also participated. Rivers were sectioned into logical segments for evaluation. Each member of the team reviewed each segment and determined whether it supported any outstandingly remarkable values. Discussions were generated when there were differences of opinion and final determinations were based on consensus.</p> <p>The Bureau of Land Management monitors the wild and scenic designated portions of Rio Grande and Rio Chama that are on National Forest System lands.</p> <p>Results: Sixty-five river segments have been identified as potentially eligible for Wild and Scenic designation. Supporting documentation is located at the Forest Supervisor’s office. The outstandingly remarkable values for which each segment deemed potentially eligible will be protected until a suitability study has been</p>

Program Area

Summary of Monitoring Conducted and Evaluation

	<p>completed or Congress designates it as a Wild and Scenic River. Supporting documentation is located at the Forest Supervisor's Office.</p> <p>The outstandingly remarkable values of the Rio Grande and Rio Chama are being maintained.</p>
<p>Lands</p>	<p>Goals: Successfully complete, process or administer planned land exchanges, title claims, purchases, donations, withdrawal reviews, property boundary locations, special uses, memorandums of understanding, and the acquisition of needed rights-of-ways, to meet other program output needs (timber sales, range projects, recreation operations etc.) and the needs of other agencies, private parties and corporations.</p> <p>Monitoring: Conditions to be monitored are dictated by individual projects, applications, annual programs, etc.</p> <p>Results: Approximately 600 Special Use Permits related to real estate are administered on the Carson National Forest. In 2002, 21 new permits were processed and 200 permits (approximately 35%) were administered to standard. Supporting documentation is located at the Forest Supervisor's Office.</p>
<p>Protection 1 Drinking Water</p>	<p>Goals: Comply with state health and sanitation - codes to protect public health. All public potable water supplies will be in compliance with the Safe Drinking Water Act and applicable state laws. Wastewater treatment will comply with state laws.</p> <p>Monitoring: Monitor all potable water systems open to public use.</p> <p>Results: Water samples are taken once a month from all campgrounds (when open) and Forest Service administrative buildings (year-round). In 2004, tests found that water at all the campgrounds was safe. Supporting documentation is located at the Forest Supervisor's office.</p>
<p>Protection 2 Fire Suppression</p>	<p>Goals: Provide effective fire suppression to reduce or minimize fire risk as the projected increase in population is realized.</p> <p>Monitoring: Determine the effectiveness of fire suppression by --</p> <ol style="list-style-type: none"> 1. Periodic inspections and reviews by specialists to determine if fire control organization is effective in controlling fire losses within acceptable limits. 2. Fire reviews of selected fires. <p>Results: The 2004 fire season was one of the more challenging on record. The number of starts nationwide was reduced from previous years, the acreage burned was reduced yet the potential for large wildfires continued unabated. Many of the Carson's personnel contributed to the national fire fighting effort during the summer of 2004.</p> <p>The Carson National Forest faced the possibility of an unprecedented fire season in 2004. The Carson had a total of 65 starts in 2004, which burned a total of approximately 84 acres. Although the majority of fires were less than one acre in</p>

Program Area

Summary of Monitoring Conducted and Evaluation

size, one fire exceeded 20 acres. The fires suppression and forest closure efforts helpd keep the number of acres burned by wildlife to a minimum.

Wildfires on the Carson 2000-2004

	2000	2001	2002	2003	2004
Total Acres	160	226	31,238	232	84
Average Size (acres)	3.0	4.5	558	2.4	1.3
Number of Fires	53	50	56	95	65
Largest fire (acres)	185	50	92,194	85 5,400 adjacent on Taos Pueblo lands	25

The magnitude of these fires is the result of two primary factors: a severe drought, and the long-term effects of almost a century of aggressively suppressing all wildfires that has led to an unnatural buildup of brush and small trees in our forests and rangelands. Keeping the wildfires small permits better planning for prescribed burning when weather and fuel conditions allow.

The Healthy Forest Initiative has been used during FY2004 to begin reducing fuel loadings in the vicinity of several communities across the Forest. These communities include Tres Piedras, La Madera, and Rio Pueblo (Taos Canyon). Efforts to reduce fuel loading are expected to continue into the future.

Protection 4
Law Enforcement

Goals: Law enforcement efforts by the Forest Service, and aided by cooperative agreements with local sheriffs' departments, are adequate and commensurate with the goods and services produced on the Forest and Grasslands.

Monitoring: Professionally evaluate trend in law enforcement effectiveness based on reviewing caseloads, solution rates and public compliance. The evaluation will be based specifically on a review of 1) protection of cultural resources; 2) changes in ORV damage; 3) changes in fuelwood theft; 4) changes in the dollar cost of vandalism; 5) trends in user protection; and 6) recurrent law enforcement problems at developed recreation sites.

Results:

- Installed signing in areas north of Red River to address illegal ATV use. Law enforcement efforts were also increased to address this concern.

Program Area

Summary of Monitoring Conducted and Evaluation

<p>Air Quality Visibility – Class I Areas</p>	<ul style="list-style-type: none"> ▪ Over one third of these violation notices issued were for -- dumping private trash on national forest, cutting forest products without a permit and off road vehicle violations. ▪ The majority of incident reports issued in 2004 are for: exceeding the 14 day limit, leaving fires unattended, destruction of government property, and dogs not on a leash, removing forest products without a permit, and destruction of government property (graffiti). ▪ Recurring law enforcement problems at developed recreation sites are exceeding the 14 day limit, leaving fires unattended, destruction of government property, and dogs not on a leash. <p>Goals: Class I areas will retain good visibility to meet Class I standards. Visibility will be retained in form, line, texture and color of characteristic landscapes.</p> <p>Monitoring: Determine baseline condition of visibility and determine if any visibility degradation is occurring in the Class I areas.</p> <p>Results: After nearly 20 years of photo documentation of the Wheeler Peak Wilderness to detect changes in air quality of a Class I airshed, it has been determined that photo comparisons are qualitative data that do not provide substantive results in determining whether quantitative standards for air quality have been exceeded. Late in 2000, a new air quality monitoring station has been installed in the Taos Ski Valley to monitor air quality in the Wheeler Peak wilderness area using quantitative data, such as percent particulate matter. As of yet, no reliable baseline data has been collected from the station. It is anticipated that the station will provide consistent data in the next two to three years. Fiscal year 2004 was the fourth year of data gathering at this site. In the mean time, photo documentation will continue.</p>
<p>Timber 1</p>	<p>Goals: Achieve a more balanced age class distribution, appropriate growing stock levels, appropriate rotations and provide wildlife habitat and other resource needs.</p> <p>Ensure that –</p> <ol style="list-style-type: none"> 1) Rotation age and CMAI assumptions are correct -- silvicultural prescriptions follow management areas standards; 2) Silvicultural prescriptions precede vegetative treatments; 3) Silvicultural prescriptions are practical and achieve desired results. <p>Monitoring: Determine age class distribution, growing stock levels, rotations and wildlife/resource needs through stand database reports; Timber Management Information System; silvicultural prescriptions; Staff field reviews of 5% of treatment projects.</p> <p>Results: Forest Plan goals for forest health, especially treatment of mid-seral vegetation to improve diversity, have not been met, but the few small projects accomplished each year continue to move the Forest towards its desired condition. Mixed conifer and ponderosa pine forests on the Carson still contain large areas of small, densely growing trees. These conditions pose a threat of catastrophic wildfire</p>

Program Area

Summary of Monitoring Conducted and Evaluation

	<p>over extensive landscapes.</p> <p>Approximately 8,000 acres of stand examination was completed in FY 2004. The stand data collected was entered into the RMRIS data base. The stand examination was done with measured on the ground plots.</p> <p>Vegetation treatments on the Tres Piedras and El Rito ranger districts received post-treatment monitoring by the Forest silviculturalist to assess their effectiveness. Supporting documentation is located at the Tres Piedras ranger station.</p> <p>Periodic field visits to project areas by sale administrators, specialists and/or line officers usually result in informal monitoring and evaluation of the application of best management practices or actions needed. Documentation is captured through specialist notes, sale administration inspection reports and/or photo points located at the ranger stations.</p>
<p>Timber 2 Timber Assumptions</p>	<p>Goals: Timber plans and projections support a sustained yield of forest products and achievement of multiple-resource objectives. Validate timber assumptions: volume, productivity, Management Area descriptions and acres harvested.</p> <p>Monitoring: Through sale review, EA's, cruise summaries, TMIS, compartment exams, stand database (use the same conversion ratios as used in Plan calculations), ensure that:</p> <ul style="list-style-type: none"> ▪ board foot/cubic foot ratios are correct; ▪ volume/acre yield is correct; ▪ management area descriptions are correct; ▪ schedule of acres harvested is correct. <p>Results: The Carson National Forest large sale timber program was very limited in 2004. Several small fuelwood and viga sales have occurred. Other small sales made have been done for than timber purposes vegetation management or wildlife habitat improvement are the reasons for the small sales. The schedule of sales outlined in the Forest Plan has been discarded. The sales listed are no longer valid based on many external factors such as of forest litigation.</p> <p>The board foot/cubic foot ratio used is determined at the region level. The ratio is accurate at approximately 1 CCF (hundred cubic feet) the same as .5 MBF (thousand board feet) or stated differently 1 MBF equals 2 CCF. Other measures are not being used.</p>
<p>Timber 3 Sawtimber and Products</p>	<p>Goals: Annual sale offerings will be made on a sustained yield basis. Meet Federal regulation, measure output; assure allowable sale quantity is not exceeded.</p> <p>Monitoring: PAMARs or other annual reporting systems and programmed harvest reports.</p> <p>Results: The large sale timber program of the Carson was not implemented in 2004. Several small sales, fuelwood and viga, did occur. The amount harvested was</p>

Program Area

Summary of Monitoring Conducted and Evaluation

	<p>below the minimum ingrowth on the Carson ensuring sustained yield.</p> <p>The allowable sale quantity was not exceeded. The Carson National Forest sold and harvested less than 5 MMBF out of an allowable sale quantity of 42 MMBF.</p>																																				
<p>Timber 4 Fuelwood</p>	<p>Goals: Green wood sales will continue on a sustained yield basis. Dead/dry firewood will continue to be available through timber-sale residue and natural mortality.</p> <p>Monitoring: Review annual total of firewood sale reports, total firewood advertised but not sold, free use and administrative or other use.</p> <p>Results: The Carson continued to provide the necessary firewood, latillas, vigas and other small products to the local populace. The amount of woody material provided met the needs of the communities and local population.</p> <table border="1" data-bbox="469 802 1300 1276"> <thead> <tr> <th></th> <th>FY2000</th> <th>FY2001</th> <th>FY 2002</th> <th>FY2003</th> <th>FY2004</th> </tr> </thead> <tbody> <tr> <td colspan="6" style="text-align: center;">Latillas, and small products not convertible to volume</td> </tr> <tr> <td>Permits</td> <td>1,655</td> <td>481</td> <td>649</td> <td>816</td> <td>Total included in fuelwood permits</td> </tr> <tr> <td colspan="6" style="text-align: center;">Fuelwood</td> </tr> <tr> <td>Permits</td> <td>3,918</td> <td>3,686</td> <td>3,775</td> <td>3,750</td> <td>3,550</td> </tr> <tr> <td>Volume (cords)</td> <td>19,001</td> <td>14,132</td> <td>18,377</td> <td>17,885</td> <td>20,536</td> </tr> </tbody> </table>		FY2000	FY2001	FY 2002	FY2003	FY2004	Latillas, and small products not convertible to volume						Permits	1,655	481	649	816	Total included in fuelwood permits	Fuelwood						Permits	3,918	3,686	3,775	3,750	3,550	Volume (cords)	19,001	14,132	18,377	17,885	20,536
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<p>Timber 5 Openings</p>	<p>Goals: Improve wildlife habitat through timber harvest by manipulation of stand sizes, methods of cut and juxtaposition of stands.</p> <p>Monitoring: Insure stand size of other harvest areas is appropriate through EA, presale and administrative reviews, and post sale reviews/project area.</p> <p>Results: Harvest prescriptions are geared toward the manipulation of wildlife habitat improvement. Guidelines for the Northern Goshawk are used to insure adequate opening size and number, retention of overstory trees. These guidelines are melded with the requirements of Mexican spotted owl recovery plans. The end result is harvest areas meeting wildlife habitat needs with any timber harvest the tool used to provide for wildlife habitat improvement.</p>																																				
<p>Timber 6 Practices and</p>	<p>Goals: All lands harvested for timber production as part of the allowable sale quantity are adequately restocked within 5 years after final harvest.</p>																																				

Program Area

Summary of Monitoring Conducted and Evaluation

<p>Assumptions</p>	<p>Monitoring: Assure that regeneration is obtained within 5 years after -- final harvest cut, and scheduled planting is accomplished through Annual Reforestation/TSI needs report, plantation survival surveys, silvicultural prescriptions, post sale administrative review, Timber Management Information System (TMIS), Stand Data Base/Acres.</p> <p>Results: Lands harvested are not harvested for timber production. Emphasis is on wildlife habitat improvement. Regeneration on harvests for other than timber production emphasis are not required to meet the 5 year time period. No lands were harvested for timber production reasons in 2004.</p> <table border="1" data-bbox="451 569 987 1226"> <thead> <tr> <th data-bbox="451 569 776 663">Activity</th> <th data-bbox="776 569 881 663">Acres 2003</th> <th data-bbox="881 569 987 663">Acres 2004</th> </tr> </thead> <tbody> <tr> <td data-bbox="451 663 776 789">TOTAL Acres Regeneration Survey for 2003</td> <td data-bbox="776 663 881 789">591</td> <td data-bbox="881 663 987 789"></td> </tr> <tr> <td data-bbox="451 789 776 915">TOTAL Acres Regeneration Survey for 2004</td> <td data-bbox="776 789 881 915"></td> <td data-bbox="881 789 987 915">508</td> </tr> <tr> <td data-bbox="451 915 776 1041">Total natural Regeneration Survey for 2003</td> <td data-bbox="776 915 881 1041">367</td> <td data-bbox="881 915 987 1041"></td> </tr> <tr> <td data-bbox="451 1041 776 1136">Total natural Plantation Survival for 2004</td> <td data-bbox="776 1041 881 1136"></td> <td data-bbox="881 1041 987 1136">222</td> </tr> <tr> <td data-bbox="451 1136 776 1226">Natural Regeneration without site preparation</td> <td data-bbox="776 1136 881 1226"></td> <td data-bbox="881 1136 987 1226">38</td> </tr> </tbody> </table>	Activity	Acres 2003	Acres 2004	TOTAL Acres Regeneration Survey for 2003	591		TOTAL Acres Regeneration Survey for 2004		508	Total natural Regeneration Survey for 2003	367		Total natural Plantation Survival for 2004		222	Natural Regeneration without site preparation		38
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<p>Timber 7 Unsuitable Timberlands</p>	<p>Goals: Meet Federal regulations to periodically re-examine lands identified as not suited for timber production to determine if they have become suited and could be returned to timber production.</p> <p>Monitoring: Evaluate the accuracy of suitable timberlands classification through --</p> <ol style="list-style-type: none"> 1) Review new or updated soil survey data. 2) Review development of better technology for regeneration establishment. 3) Stand exams. 4) Timber Inventory and planning results. <p>The data monitored will be used as the basis for an evaluation to determine which lands are suited to timber production.</p> <p>Results: The soil information, stand examination data, timber inventory, and regeneration establishment technology has not changed since implementation of the Forest Plan. No stands identifies as unsuitable were placed in timber production</p>																		

Program Area

Summary of Monitoring Conducted and Evaluation

	category.
Minerals	<p>Goals: To meet the requirements of the law, regulations, contract obligations, fiscal accountability, protection of surface resources and successful reclamation. The expected future conditions should be specified in the documentation of the approval of the activity, project, lease, sale, etc.</p> <p>Monitoring: The mineral program will be monitored through a combination of the MAR data reporting system, systems designed for individual project quality control, field examinations by Forest Staff personnel and the Activity review system. Management of the minerals activities: Environmental Assessments, bonds, bond justifications, response times for applications and plans of operations, quality of resource coordination, field checks for compliance of the terms of the operating plans, reasonableness of resource protection requirements, mineral sales program, pit plans, accountability, documentation, and reclamation.</p> <p>Results: A Forest Geologist was hired in FY 2002. The job was vacated in FY 2003. the job was filled once again in FY 2004. The San Juan Basin (Jicarilla Ranger District) has experienced an upturn in Applications for Permit to Drill (APD). These APD's are on lands leased prior to 1970. An environmental assessment is made for each APD or grouped APDs. An environmental impact study is expected to be released for comment in FY 2005 concerning unleased lands and surface occupancy on the unleased lands or lands having leases laspe on this ranger district. The EIS should be completed in FY 2005.</p>
Range 1 Unsatisfactory Range	<p>Goals: Bring unsatisfactory ranges to satisfactory condition through increasing management intensity levels, constructing structural range improvements, adding nonstructural range improvements.</p> <p>Monitoring: Use allotment analysis data to update Grazing Statistical Report.</p> <p>Results: The drought over the last few years continued in 2004. This temporary change in the weather has brought many hardships to cattle producers. Late entry dates and early removal continued to be use as intensive management options to reduce impacts to unsatisfactory ranges to aid in moving these ranges toward a satisfactory condition. See discussion under watershed improvement for details pertaining to range condition monitoring and actions to improve conditions.</p>
Range 2 Range Condition and Trend	<p>Goals: Range conditions will be improved at 2030 by decreasing unsatisfactory range to 68,883 acres; and increasing satisfactory range to 753,244 acres.</p> <p>Monitoring: Conduct range analysis per Regional standards by qualified Range Conservationists.</p> <p>Results: Improved range conditions have resulted from implementation of structural and nonstructural improvements, and more intensive management developed in allotment management plans. Continued NEPA analysis on all of the Forest's allotments will help sustain this type of improvement. Drought conditions have slowed the progress of improving range conditions.</p>

Program Area**Summary of Monitoring Conducted and Evaluation**

Range 3 Management Plans	<p>Goals: Prepare or update grazing allotment or unit management plans on 75 percent of the National Forest allotments.</p> <p>Monitoring: Track allotment management plans through PAMARS.</p> <p>Results: The Forest completed one allotment management plan. However, the Forest is behind in meeting the schedule outlined in the Burns Amendment to the Recession Act. The Forest is striving to complete the analysis and documentation phase on numerous allotment environmental analyses.</p>
Range 4 Range Development	<p>Goals: To move toward balancing range use with capacity, the structural and nonstructural improvements will be added or reconstructed based on the allotment management plans and funding levels.</p> <p>Monitoring: Track data on completed range improvements (fences, waters, revegetation, etc.) through the existing RAMIS system and the annual grazing statistical report.</p> <p>Results: The needed data was reviewed, verified and entered in the Infra database by District personnel. The Range Infra Deferred Maintenance database has replaced the RAMIS database.</p>
Range 5 Permitted Use	<p>Goals: Through increased management and additional structural and nonstructural range improvements, range capacity is expected to increase from the present 119,000 AUM's to 136,000 AUM's in the fifth decade.</p> <p>Monitoring: Track through data generated from grazing permits and displayed in Grazing Statistical Report.</p> <p>Results: All permitted Use data for stocked allotments was verified/updated in the Range Infra database by Forest Personnel in FY 2004.</p>
Range 6 Grazing Capacity	<p>Goals: Grazing capacity is expected to exceed permitted use through the fifth decade.</p> <p>Monitoring: New analysis data updates Annual Grazing Statistical Report.</p> <p>Results: The grazing capacity was verified for the Miranda allotment through the NEPA process.</p>
Visual Quality 1	<p>Goals: Prevent acres with visual quality objectives of Retention or Partial Retention from being reduced more than 20% .</p> <p>Monitoring: The Visual Resource Management System will be used as a basis of the monitoring activity.</p> <p>Results: There was no activity that would reduce the visual quality objectives of Retention or Partial Retention in 2004. There may be applications for permit to drill in the Vaqueros Canyon area of the Jicarilla Ranger District that could impact the Partial</p>

Program Area

Summary of Monitoring Conducted and Evaluation

	Retention designation. The oil and gas lease predate the Forest Plan and designation of Vaqueros Canyon.
Visual Quality 2	<p>Goals: Visual Quality levels will be maintained or enhanced.</p> <p>Monitoring: Projects involving vegetative treatment or manipulation, road or trail construction and major development will be evaluated through the NEPA process to enhance or maintain visual quality levels.</p> <p>Results: Two powerline project analyses are on going or have been completed. Visual resource management is an integral part of both projects. It is expected that neither project will reduce the visual quality levels below current levels or not follow the standards and guidelines in the Forest Plan. Some enhancement should be expected where portions of the powerlines could be relocated or removed.</p>
Forest Plan Implementation	<p>Goals: Assure compliance with and implementation of the Carson Forest Plan in accordance with its stated mission, goals, objectives and standards and guidelines.</p> <p>Monitoring: This will be done in light of funding or any other constraints</p> <p>Results: Each project implemented in 2004 was evaluated to insure compliance with the Forest Plan. There were no Forest Plan amendments in 2004.</p>

Insect and disease 1 Insect and Disease incidence by year by acre

Insect and disease 2

Baseline/Inventory Monitoring

- Contracts for wildlife population monitoring are planned to begin in FY 2003.
- Vegetation data are being collected on each ranger district. This information is being used to determine existing conditions for wildland urban interface and forest health projects, salvage sales, Mexican spotted owl thresholds and old growth at the landscape level, and Forest Plan Revision preparation. Vegetation conditions are recorded on maps and tracked in the RMRIS database and GIS. Photo history is also used to document changes in vegetation composition, structure and health. Much of this data determines where management activities are needed on the Forest to help reach a desired condition. Supporting documentation is located at the ranger stations and the Forest Supervisor's office.
- The Forest archeologist provides program oversight and quality control by reviewing all heritage resource clearances. The purpose of this type of monitoring is to gain overall knowledge of new sites found on the Forest and the course of action taken to protect them. Supporting documentation is located at either the ranger stations or the Forest Supervisor's office.
- The National Visitor Use Monitoring Project for the Carson National Forest was completed and placed into the public domain in June, 2004. This information is available electronically at <http://www.fs.fed.us/recreation/programs/nvum>.

Implementation Monitoring

- Fuelwood monitoring includes field checking for "leave" trees and assessing how the public is harvesting. Monitoring information is considered when determining cleanup efforts needed for fuelwood areas. Cleanup efforts are also monitored. Recommendations and actions are normally documented and are located at the ranger stations.
- Precommercial thinning and salvage sale activities include post-sale inspections. Areas are examined to ensure contract requirements are met and results are documented in the RMRIS database. Supporting documentation is located at each of the ranger stations.
- Forage utilization is monitored periodically in grazing allotment pastures to determine whether over utilization is occurring. Supporting documentation is located at each of the ranger stations.
- Range readiness is monitored on an annual basis to determine the time livestock can be released onto an allotment pasture. Current drought conditions have resulted in later than normal turnouts. Supporting documentation is located at each of the ranger stations.
- Archeological and heritage surveys are completed prior to the implementation of ground disturbing proposals to assure protection or mitigation of cultural and/or historic sites. Supporting documentation is located at the Forest Supervisor's office. 17,938 acres were surveyed in 2004 with 493 new heritage sites located. In addition 147 additional sites were monitored for disturbance and current condition.

Effectiveness Monitoring

- Prescribed fire treatments are monitored through on-site visits. Usually "before and after" photos are taken for burn projects to determine whether the anticipated objectives have been attained (i.e., has the palatability of the oak browse noticeably improved?). Recommendations and follow-up actions are determined. Supporting documentation is located at each of the ranger stations.
- Numerous public field trips are taken each year on the Carson to areas where projects have been implemented. These trips result in informal monitoring of the effectiveness of actions taken and provide excellent opportunities for the public to express their opinions about a type of project. Line officers are also involved in these trips. Supporting documentation is located in the NEPA project documentation at each of the ranger stations.
- Damage, erosion and changed conditions of prerecorded heritage resource sites are documented. Project areas are inspected upon project completion to verify that flagged archaeological sites have been avoided. Site monitoring forms are kept on file in the Forest Supervisor's office.

Certain assumptions made in the Carson Forest Plan are continually being validated by many of the monitoring activities listed above. Amendments, such as the 1996 region-wide amendment for the Mexican spotted owl, northern goshawk and old growth, can significantly change how we meet our goals and objectives, but not necessarily the assumptions or desired conditions made in the Forest Plan. Since the Forest Plan primarily focuses on desired condition rather than how to get there, we can be flexible in finding and determining better ways of moving toward our desired condition.

Upon reviewing Chapter 5 (Monitoring Plan) of the Carson Forest Plan, much of the Carson's monitoring activities are closely linked to the items listed in Chapter 5. Formal evaluation and documentation of these monitoring activities is limited, given the emphasis and budget constraints put on the specialists. The information generated from these monitoring efforts achieves the intent of the majority of monitoring items found in Chapter 5 of the Forest Plan.

Monitoring Results

Introduction

Specifically this year, what has happened on the forest/grassland or externally that has affected the forest/grassland such as natural changes, social and economic changes, and management actions?

Drought

The drought conditions persisted for the entire year of 2004. The drought began about 1996 and has continued with short breaks of near normal moisture. The grasslands have been affected. The grass grew very little this past summer. The mature plants were often times less than 6 inches in height. Grazing was curtailed with some permittees not allowed to graze cattle. The act of not permitting cattle to graze many allotments and by extension much of the national forest aided in maintaining grasslands at their current levels.

Forested lands were also affected by the lack of moisture. The moisture stress is beginning to show with increase bark beetle and other insect population increases. Small spots of dead, dying, or damaged trees are evident across the forest. These areas are well scattered. These population centers could be a forerunner of increase insect attack and mortality across the forest.

Fire season

The potential for large fires was present for an extended period of time during 2004. Lightning activity was prominent throughout much of June and July. Late season fire activity was higher and than normal. Fire activity throughout the Southwest was high with several large fires, which stretched the resources on a local basis. Several lightning and human caused fires were detected. These scattered fires were extinguished by the fire personnel remaining on the forest.

Social and Economic Changes

The communities adjacent and within the forest boundaries are experiencing a continued influx of people. Many visitors return becoming residents. The attitudes brought by the newer residents conflict with many traditional land uses and at time the cultures of current residents. There were continuing comments concerning cessation of grazing activities to protect the land. Yet many long-term residents have used or have family members who use the forestlands to supplement or provide incomes to sustain their families. The newer residents may conflict with the long-term residents causing tension with the Forest Service in the middle.

The economic changes have been in the seasonal business sector, and lodging and food establishments. Many of these jobs are on the lower end of the income level. Businesses capable of using forest products and paying higher wages have not moved into the area.

Ecosystem Health

The increasing insect populations in the pinyon/juniper woodland are a potential change agent. The outbreak could continue for many years reducing the amount of pinyon in these woodlands. The potential is to see the woodlands become juniper savannahs in a few years. The loss of the pinyon trees could benefit grasslands. As the trees die and fall to the ground the added litter should provide microenvironments suitable for grass establishment. The grass would likely increase giving the soil more vegetative cover. The current situation is a change in visuals as the trees die. The population of bark beetles in the pinyon-juniper has decreased as noted by the reduced acreage noted as infested by aerial detection methods. Over the time the incidence of bark beetle infection should return to endemic populations levels.

Multiple Benefits to People

In FY 2004, fuelwood was provided to individuals. Northern New Mexico has a high proportion of resident who use fuelwood for heating and cooking. The Carson provided fuelwood supplies to local communities as is typified by the Camino Real Ranger District's stewardship blocks. Communities are both obtaining fuelwood and creating thinned areas to aid in providing increased fire protection to their homes.

The Carson National Forest has a long-standing tradition and desire to provide for the local communities while providing for national needs. The fuelwood program provides for both of these needs.

Scientific and Technical Assistance

Management activities were designed to improve the productivity of the natural resources while providing for people. The grazing program while delaying entry dates was designed to provide for the natural resources. Early and constant contact with livestock owners permitted the owners to reduce numbers or find other sources of feed. The range program continued to monitor the conditions of the allotments with the intent of providing the permittees an opportunity to graze the land.

The planned accomplishment of 6 to 8 allotment management plans was not met. Only one management plan was completed. This failure to complete the total number planned may have an impact in the future.

Barriers To Effective Monitoring

The predominant barriers overriding effective monitoring and evaluation have been higher priority work and lack of funding. Congressional and budget intent comes to us functionally, and is still tied to targets. In addition, user groups want us to produce a "product" (wilderness experience, firewood, forage, clean campgrounds, etc.) for them. Few are asking for monitoring results. In order to show responsiveness toward the public and accomplishments to Congress, we maintain focus on products and targets. Often any internal or external interest there may be in monitoring is focused on the "gotcha" versus the adaptive management of learning.

People or special interest groups are more interested in using our deficient documentation of monitoring activities as a way of demonstrating that we are not following regulations.

Status of Previous Year's Recommendations and Current Year's Recommendations

Status of Recommendations

--Forest Plan Direction for the Management of Mexican Spotted Owl and Northern Goshawk Habitat and Old Growth

Recommendation for 1999:

Correction pages have not been developed for the Carson Forest Plan. The Carson is continuing to use the Record of Decision signed by the Regional Forester for direction on the management of Mexican spotted owl and northern goshawk, as well as, old growth.

Correction pages have been developed and placed into the Carson Forest Plan. The Carson National Forest website (<http://www.fs.fed.us/r3/carson>) contains the corrected version. Paper copies are also available.

Recommendation for 2003:

Develop and issue correction pages for the Forest Plan to incorporate the changes in standards and guidelines made through the June, 1996 Record of Decision (ROD) for Amendment of Forest Plans. This region-wide amendment includes direction for the Mexican spotted owl, northern goshawk and old growth. Currently the ROD is used as a separate document to the Forest Plan.

Correction pages have been developed and placed into the Carson Forest Plan. The Carson national forest website (<http://www.fs.fed.us/r3/carson>) contains the corrected version. Paper copies are also available.

--Inventory of River Sections Eligible for Wild and Scenic River Designation

Recommendation for 1999:

An inventory has not been completed for the entire Carson National Forest. Eligibility analyses have been completed on all ranger districts, except Canjilon.

The inventory for river sections eligible for wild and scenic river designation has been completed. The inventory is available at the Carson National Forest supervisors office.

Recommendation for 2003:

The eligibility and classification inventory and analysis for wild/scenic/recreational river designation for the Forest to Management Area 18 was completed in January 2002. This will protect these areas until a suitability assessment can be done. A Forest Plan amendment (#12) added language to aid in protecting areas until the suitability assessments can be done in the future.

--Forest Plan Direction for the Vallecitos Federal Sustained Yield Unit

Recommendation for 1999:

Most of the technical writing for the proposed amendment is complete.

The proposed changes must still go through the NEPA process.

Recommendation for 2003:

Amend the Vallecitos Federal Sustained Yield Unit section of the Carson Forest Plan to reflect the intent of two court settlements (March, 1996).

--The Carson Forest Plan as a "User Friendly" Document

Recommendation for 1999:

Review and reorganization of the Forest Plan document has not been completed.

Recommendation for 2003:

Review of the Forest Plan and elimination of extraneous information is a "nice thing to do", but with current funding and work load this is not a priority. Ideas on making the Forest Plan more accessible and easy to read will be accomplished as amendments are completed to comply with Forest Plan revision.

--Management Indicator Species Forest Wide Assessment for the Carson National Forest

Recommendation for 2003:

Compose a white paper analyzing the existing status of the management indicator species (MIS) listed in the Carson Forest Plan EIS. When MIS were identified and selected (according to CFR 219.19) all federally and State listed and Forest sensitive species were included. Many of these species have not been known to exist on the Forest for many years or not at all. Other species are only found on the periphery of the Forest.

Clarification pages have been placed into the Carson National Forest Plan.