Carson National Forest
Southwestern Region

Carson Forest Plan Monitoring and Evaluation Report

Fiscal Year 2000-2002

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 September 30, 2003
MARTIN D. CHAVEZ, JR. Date
Forest Supervisor

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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, which should be completed in 2003. 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, Merriams's Turkey, Abert's Squirrel, Red Squirrel, Hairy Woodpecker, Ptarmigan, Juniper (Plain) Titmouse, Brewer's Sparrow, Resident Trout, and Aquatic Macroinvertebrates. **Threatened, endangered and sensitive (TE&S) species** are surveyed for project 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 (over 12,700 acres in FY 2002) 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, 92 pretreatment plots were established and monitored in FY 2002. 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 2002.

In 2002, over 2,108acres were surveyed on the Carson National Forest for **northern goshawk**.

Annual counts of the recently (1994) reintroduced **Rock Mountain bighorn sheep** population in the Wheeler Peak Wilderness Area are conducted. This monitoring is performed in cooperation with the New Mexico Department of Game and Fish (NMGF) to determine the herd's reproductive and adaptive success. In 2002, there were in excess of 200 sheep in the Wheeler Peak or Columbine/Hondo areas. This is an increase of about 50 sheep over the past year. They have been successfully reproducing for the past six years. Evaluation as to whether some of the population should be transplanted to another location is still in the future. The target population for these two areas is between 125 and 150 animals. Supporting documentation is located at the Questa ranger station.

A count of the recently reintroduced **Rock Mountain bighorn sheep** population in the Latir Wilderness Area was conducted. This monitoring is performed in cooperation with the New Mexico Department of Game and Fish (NMGF) to determine the herd's reproductive and adaptive success. In 2002, there were an estimated of 80 sheep in the Latir area. This is an increase of about 25 sheep over the past year.

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 2002 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 2002 to determine reproductive and adaptive success. Supporting documentation for deer aerial monitoring is located at the New Mexico Department of

Program Area	Summary of Monitoring Conducted and Evaluation
	Game and Fish State Office in Santa Fe, New Mexico. Point count transects for **neotropical migratory birds** (NTMBs) are accomplished annually (100 acres in FY 2002) on the Camino Real and El Rito ranger districts. 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 2002 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 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** are also surveyed and monitored on the Carson NF. Supporting documentation is located at the Forest Supervisor's office. 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. **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 analyzing effects. 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 2002 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. **Mexican spotted owl** surveys did not identify any birds residing on the Forest.

Program Area	Summary of Monitoring Conducted and Evaluation
	Follow up surveys on Jicarilla Ranger District did not find any birds residing in previously known MSO nesting habitat. Monitoring of the population of **Rocky Mountain bighorn** transplanted to the Wheeler Peak Wilderness from the Pecos Wilderness has shown that reproduction has been successful and the herd is growing better than anticipated. Monitoring of continued reproductive success may eventually lead to another transplant project, but not likely for another five to ten years. It is likely that sheep from the expanding herd in the Wheeler Peak Wilderness will be transplanted to the Arizona in 2003 in cooperation with the New Mexico Department of Game and Fish. **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 monitoring points within Game Management Unit 52 There is only one location with known occupied **southwestern willow flycatcher** 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 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. An upgrading of the Talpa-Penaco power line is in the engineering stages. An Environmental Impact Statement and Decision Notice was published in January of 2002. The decision removes the existing powerline from SWWF habit. The upgrade line will be adjacent to the existing highway. 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. Under Sikes Act monies 60 miles of Rio Grande Cutthroat restoration work was completed in FY 2002 on the Questa

Program Area	Summary of Monitoring Conducted and Evaluation
	Ranger District. This work was in addition to completion of a RGCT habitat assessment on the El Rito Ranger District. 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 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 need improvement to regain their full natural function. 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.
Special Areas (Management Area 19)	**Goals:** The proposed Arellano Canyon Research Natural Area, the Tres Piedras *Haplopappus microcephalus* Botanical Area, the Middle Fork Lake/Sangre de Cristo Pea Clam Zoological Area and other potential research natural areas will be maintained and protected. **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. **Results:** In FY2002, there were no proposals within or adjoining a special area. No uses or activities on the Carson National Forest are causing adverse impacts to special areas.
Protection 3 Insect and Disease	**Goals:** To meet Federal regulation, ensure destructive insect and disease organisms do not increase to potentially damaging levels following management activities. **Monitoring:** Determine growth reduction and mortality caused by insect and disease infestations.

Program Area	Summary of Monitoring Conducted and Evaluation

Results: Aerial insect and disease surveys of the Forest are conducted annually.

Insect/Disease	1999	2000	2001	2002
Western Spruce Budworm	143,340	86,645	290,610	114,680
Aspen Defoliation	15,505	15,160	640	2,645
Pinyon Bark Beetle	No data collected	No data collected	Rudimentary data collected	16,240
Mountain Pine Beetle	No mortality detected	585	1500	3,265
Douglas-fir Beetle	No mortality detected	40	75	90
Spruce Beetle (included corkbark fire mortality)	1,235	955	1,230	1,675
Fir engraver Beetle	135	95	200	455
Ips beetle in ponderosa pine	185	Not detected or recorded	275	Not detected or recorded

Supporting documentation is located at the Forest Supervisor's Office. Results for 2002 are as follows:

Insect and Disease Conditions for years FY1999 to FY2002.

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.

Protection 5

Fuels

Goals: Fuel treatment will follow the various timber activities as a means of reducing fire hazard and insect and disease potential.

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.

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.

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.

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 2002.

Results: Activities that improved Forest watershed conditions were accomplished on over 4,000 acres in FY 2002. 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**
Road Maintenance (miles)	459	243	476
Road Obliteration (miles)	45	43	8
~~Re-seeding (Acres)~~	~~110~~	~~50~~	~~3,000 (Montoya fire)~~
Sagebrush conversion (Acres)	650	400	200

Sagebrush conversion (Acres)	650	400	200
Thinning (acres)	300	1,486	630
Prescribed burning	7,388	1,010	4,770

Summary for Year 2002

Camino Real Ranger District

- Completed environmental analysis on the Knob grazing allotment for the purposes of permit re-issuance and livestock distribution.
- Constructed 1.25 miles of fence on the Luna-Chacon Grazing allotment and 1.0 miles of fence one the Trampas allotment to improve livestock distribution.
- Implemented the Turkey Park and Entranas 2002 and continued implementation of the Canada Maria, Ruedas, Ojito, West Entranas, Entranas 2000, Llano Abeyta, Pot CreekNallecitos, Bear Mountain, Arellano, EI Valle, Tienditas, Zapato, Ojos Ryan, Escarrodio, and Cejita Mesa 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 catastrophic wildfire, and obliterating un-needed roads and trails. These projects will improve watershed condition on approximately 1700 acres.
- Implemented contracts with local community members to thin approximately 118 acres within the Santa Barbara area. This work was funded through a 319 Grant.
- Conducted trail maintenance on approximately 44 miles throughout the District. Cleaning and maintenance of existing drainage structures, re-construction of water bars, and trail clearing were the primary improvements made.
- Accomplished 394 acres of precommercial thinning to improve forest health:
- 149 acres of precommercial thinning on the Bear Mountain project (see Partnerships below)
- 245 acres of precommercial thinning on the Hodges project. The objective of these treatments was to reduce hazardous fuel loads and improve and enhance wildlife habitat conditions. Some slash was scattered in area which will allow for native plant regeneration.
- Conducted trail maintenance on approximately 44 miles throughout the District. Cleaning and maintenance of existing drainage structures, re-construction of water bars, and trail clearing were the primary improvements made.
- Continued participation with NMED, Quivira Coalition, Conservation Fund and the Santa Barbara Grazing Association in implementing watershed improvements on the Santa Barbara grazing allotment. Activities included resting the allotment from grazing by sending half the cattle permitted on the Santa Barbara to the Rowe Mesa Grass Bank; thinning approximately 149 acres of Ponderosa pine and Mixed Conifer to enhance under story vegetation.

Program Area	Summary of Monitoring Conducted and Evaluation
	▪ Range readiness and forage utilization monitoring was conducted on fifteen (15) allotments in a severe drought year. This monitoring resulted in a deferred entry of eight allotments and early removal on two allotments. In addition, 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. ▪ Established plots in the Santa Barbara Watershed Restoration were monitored by the Quivira Coalition. <u>Canjilon Ranger District</u>: ▪ Performed road maintenance on 55 miles of road district wide. ▪ Removed culvert and constructed low water crossing on Forest Road #724, and improved culvert splashpad and armored culvert inlet on Forest Road #337. These actions were conducted as part of the Montoya Fire Burned Area Emergency Rehab (BAER). ▪ Maintained 6 miles of hiking trails district wide, including construction of water bars. ▪ Type converted 200 acres of sagebrush by brush-hogging on the Canjilon allotment. ▪ Prescribed burned 350 acres in the Pinon-Juniper. ▪ Aerial seeded approx. 3000 acres as part of the Montoya Fire BAER. ▪ Cleaned out and reconstructed 5 earthen stock tanks in Mogote Allotment to increase capacity for water and silt. ▪ Constructed two sediment retention structures in Bias Canyon as part of the Montoya Fire BAER (Burned Area Emergency Rehabilitation). ▪ Range readiness and forage utilization monitoring was conducted in all12 allotments. ▪ Adjustments in entry dates and permitted cattle numbers were made in 10 allotments due to drought conditions. <u>El Rito Ranger District:</u> ▪ Accomplished 119 acres of pre-commercial thinning to improve forest health in the Canada project. ▪ Forest roads 137, 44, 106, 172, 97, 719, and 110 received maintenance, consisting of 70 miles of grading, brush removal, drainage and culvert cleanout. ▪ Forest Roads 106A, 123,458, and 274 (twice) were bladed to prevent further deterioration of roads. A total of 25 miles were maintained. ▪ Approximately 8 miles of road were decommissioned within the EI Rito Creek 5th order watershed. ▪ Conducted prescribed burns on 3,000 acres total on the Madera Canyon WUI under combined funding from CNF Fire funding and Sykes Act wildlife funding. The objective of this burn was to improve wildlife habitat, improve vegetative diversity and herbaceous groundcover as well as reduce hazardous fuels next to

Program Area	Summary of Monitoring Conducted and Evaluation
	the community of EI Rito. This project will continue to reach a target of 5,000 acres. ▪ Range readiness and forage utilization monitoring was conducted on all of the EI Rito Ranger District's 1O grazing allotments ▪ 319 Grant for improvements in the Vallecitos Creek watershed has been carried over into FY 2003 due to fire restrictions and drought conditions this year. Several of the projects however were completed in FY 2002: Constructed 1/4 mile of new fence on the Escondido Allotment. Cleaned out 2 existing stock tanks: "McIntyre Tank #2", and Ancones # 1. Ojito Azul Spring improvement 75% complete (to be finished in FY 2003) ▪ Constructed a new stock tank on the Comanche allotment-"East Comanche stock tank". ▪ Constructed 9 earth stock tanks located in the EI Rito Lobato East allotment (Gallegos stock tanks). The stock tanks will help improve livestock distribution within the allotment. ▪ Cleaned out 2 existing stock tanks: the Benjamin stock tank on the Jarita Mesa allotment, and "French Park Tank". ▪ Re-constructed the berms on the Abra stock tank and the La Jara stock tank, and the berm on the North La Jara stock tank on the EI Rito Lobato West allotment. ▪ Conducted the Cottonwood Tree Spring development located within the Perro Pasture of the EI Rito Lobato West Allotment. ▪ Constructed a new fence around the Canova Spring located in the Salvador Complex allotment. ▪ Removed and cleaned out the areas under 6 cattle guards: at junction of Forest Service road 559 and 106, the San Gabriel cattle guard on Forest Service road 559, adjacent to the EI Rito campground on Forest Service road 559, bordering the EI Rito and Canjilon districts, on the Salvador Complex allotment, and just south of the community of Vallecitos, Forest Service road 106. ▪ Installed 5 new cattleguards: 2 between the Escondido and Jarosita allotment boundaries, between the Salvador and the San Gabriel allotments, between the Portrero and and La Jara pasture boundaries, and one on the East Comanche allotment adjacent to the Jarita Mesa allotment to assist in distribution of livestock. <u>Jicarilla Ranger District</u> ▪ 2.0 miles of road reconstruction on FOR 314 along Carriso and Companero drainages, including surfacing with sandstone, replacing 2 culverts, and installing 1 new culvert. ▪ Spot sandstone surfacing on approx. Y2 mile on FR 311 and FR 312. WUI Vegetation Treatment: ▪ Combination of prescribed burn and mechanical treatment for approx. 150 acres on multiple small projects. ▪ Approx. 120 miles of road received maintenance through our continued partnership with the oil and gas companies via the Jicarilla RD Roads Committee. The purpose is to provide needed road maintenance on a timely basis to access gas well locations and minimize resource impacts from road use.

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	▪ Worked with the San Juan Basin Oil and Gas Subcommittee, beginning discussions and permitting 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. ▪ Presented at a 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 approx. 400 elementary school children (4-6 grades) in the Four Corners area schools. ▪ Participated as a member of the San Juan Basin Water Committee, working with NMED and all surface landowners in the process of establishing TMDL's in the San Juan and Animas Rivers. ▪ Cleaned out and maintained 20 existing stock tanks, 8 of which were bentonited (clay lined). ▪ Constructed 6 new sediment traps in association with new gas well locations and drills. ▪ Began watershed condition assessment on the Jicarilla RD in association with Jicarilla RD Oil and Gas Expansion EIS. ▪ Completed road inventory and condition analysis of all roads on the District. Developed watershed level roads analysis for Bancos, La Jara, Cereza Canyon, Carracas and Tapicito watersheds. ▪ 3 allotments were not stocked this year. ▪ 2 allotments had delayed entry dates, reduced stocking and early off dates. ▪ 1 allotment had reduced stocking and an early off date. ▪ Cleaned up 2 produced water spills through oil and gas lease operators and NMOCD. <u>Tres Piedras Ranger District</u> ▪ Accomplished 76 acres of precommercial thinning and hand piling to improve forest health and reduce fire hazard on the Elmo/Gravel/Pickens Rock project ▪ Planning, burning and mechanical treatment of WUI areas: South T.P. - 50 acres Elmo - 60 acres ▪ Maintained riparian fencing at Stewart Meadows (300 feet). ▪ Fenced approximately 2 acres at Cisneros Park to protect existing soil, vegetation and water resources. This fencing compliments other project work accomplished in 2001- 2002 utilizing sandbags, aspen logs, and rocks and other native materials to dissipate peak flows and restore water tables in wet meadows. This project is a partnership with Albuquerque Wildlife Federation. ▪ Constructed new irrigation diversion structure in the Stewart Meadows area. The purpose of this project is to allow water to flood the adjacent meadows, enhance the riparian, and provide wet meadow habitat for use by wildlife, primarily water

Program Area	Summary of Monitoring Conducted and Evaluation
	fowl. ▪ Constructed a 3500 gallon water catchment tank in the Dry lakes area. This collects water year round and makes it available to wildlife. The tank and trough were fenced off from livestock. ▪ Conducted prescribed burns on 650 acres on the Tusas-Petaca area. The objective of this burn was to improve wildlife habitat, improve vegetative diversity and herbaceous groundcover. This project will continue in 2003 to reach a target of 1,200 acres. ▪ 17 Allotments Permitted with 4 Allotments in Non-use ▪ 13 Allotments Managed to Standard ▪ 15 Allotments -Monitored with Production/Utilization studies using cages for comparison ▪ New Construction -2.5 miles of lay-down fence ▪ Continued maintenance on 30 existing range improvements Grazing Permit Administration: Processed 13 Waivers Held 35 grazing permittee meetings related to the drought situation ▪ Conducted trail maintenance on 26 miles of trail District wide. ▪ Installed 7 new Toilets in Campgrounds ▪ Fish Lake restored by planting native vegetation along shore line (Laguna Larga) ▪ Acquired partnership funding Phase 1 for the TCLP Well and Pipeline. Partners in this project include: Taos Soil and Water Conservation District Sikes Act Carson National Forest funds ▪ Total of 69.1 miles maintained District wide. <u>Questa Ranger District</u> ▪ Worked with grazing permittees to reduce stocking numbers, defer entry, and to agree to total non-use on their allotments due to drought conditions. ▪ Closely monitored utilization all grazing allotments on the district, stocked and nonstocked. ▪ Cleaned out and repaired the 5 existing pit/stock tanks. These structures capture surface runoff and sediment. ▪ Prepared two NEPA documents for the Columbine and Deer Creek Allotments. Road Improvements/Management: ▪ Maintained road improvements put in place on the Lower Bitter Creek road in partnership with NMED-SWQB under a 319(h) grant. Met with NMED personnel to discuss over-all maintenance alternatives. ▪ Coordinated with NM Department of Transportation on water quality, erosion and watershed management issues during the re-construction of State Highway 522.

Program Area	Summary of Monitoring Conducted and Evaluation
	▪ Increased level of road maintenance on the Valle Vidal unit and Cabresto Canyon. ▪ Collaborated with the Town of Red River to secure a State TEA-21 grant for recreational road improvements in the Goose Creek and Trail Canyon areas. Completed reconstruction, with many additional watershed improvements (251 rolling grade dips and 6 major sediment traps to intercept road sediments), on 5.2 miles of Trail Canyon Road. Planning, engineering survey and design of improvements underway for Goose Lake. ▪ Completed heavy maintenance on 1 mile of FR 486 (Goose Lake Rd.) to restore road drainage and road stabilization prior to implementation of the 319 grant. ▪ Increased law enforcement activities and signing to address ORV use and resulting resource damage from this activity. ▪ Refined road improvements in the Cabresto Canyon dispersed recreation area. The objective of this project is to define and improve road access to dispersed recreation sites, provide needed drainage structures on access routes, eliminate user created roads impacting Cabresto Creek and place barricades to control GRV use both along the main road and within the riparian area and meadows along Cabresto Creek. ▪ Worked closely with Quivira Coalition on their 319 Grant to identify road/run-off issues on the Valle Vidal. ▪ Inventoried and geo-positioned all roads in Red River Canyon. Roads will be entered into the Forest INFRA data base. ▪ Completed routine maintenance on approximately 60 miles of roads. ▪ Coordinated with Red River Ski Area to implement numerous watershed improvements in the lower ski area. ▪ Approved Molycorp's acid seep collection gallery and pipeline. Continued our coordination with MolyCorp Inc. and EPA on numerous Superfund related activities. ▪ Constructed 6 new riparian vegetation enclosures along Comanche Creek involving NM Trout and Trout Unlimited volunteers under Quivira Coalition's 319 Grant. ▪ Completed heavy maintenance on riparian enclosure fencing that protects 1 mile of the McCrystal Creek channel. ▪ Planted 1 acre of cottonwoods within enclosures along Comanche Creek. ▪ Re-constructed 4 miles of hiking trails in close proximity to surface waters. ▪ Conducted trail maintenance on approximately 20 miles of wilderness trails. Cleaning and maintenance of existing drainage structures, re-construction of water bars, and trail clearing were the primary improvements made. ▪ Installed additional horse facilities at Cimmaron Campground. ▪ Installed additional rock traffic control barriers at McCrystal Campground. ▪ Installed new toilets in several campgrounds in Red River and the Rio Hondo immediately adjacent to the stream. ▪ Constructed a new parking lot farther from San Cristobal Creek and closed the old road and parking lot located immediately adjacent to the creek. ▪ Adjusted wooden barriers at Cabresto Canyon Meadow dispersed recreation area. These barriers limit vehicular access in the meadow and adjacent riparian area of

Program Area	Summary of Monitoring Conducted and Evaluation
	Cabresto Creek. ▪ Implemented treatments on the 24,000 acre Ponil Fire. This was a complex and comprehensive effort involving many resource specialists at a cost of approximately $400,000 in Burned Area Emergency Rehabilitation funds. 9000 acres were aerial seeded, 10 miles of channel were treated, and 2 archaeological sites protected. ▪ Accomplished 265 acres of mechanical thinning and piling/chipping on the Red River Treatment Plant Wildland Urban Interface Project. ▪ Performed maintenance tilling of historically diesel-contaminated soil at Shuree Ponds, in accordance with a multi-year remediation process. A contractor provided needed tilling on three bio-remediation pads. ▪ Initiated and completed the clean-up of a diesel spill on Forest Road 1950. ▪ Continued our participation in the Red River Watershed Group. Participated in meetings and field trips. ▪ Participate with Meridian Associates on the formation of a Cimmaron watershed group. ▪ 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. Coordinated with USGS personnel conducting groundwater monitoring in the upper watershed. ▪ We are working closely with the Quivira Coalition, NMED-SWQB, Valle Vidal Grazing Association and other partners on a Watershed Restoration Action Strategy and potential project list on the Commanche watershed under a 319(h) grant. ▪ Coordinated with UNM graduate student in the collection of data for a Masters thesis dealing with natural and mine related conditions of the Red River. ▪ Completed mine reclamation activities on the Mallette mine. This included closing 1 mine adit, gating the entrance and removal of 200 yards of waste rock. ▪ The Questa RD supported efforts by contractors working on the preliminary assessment/site investigation of abandoned and in-active mines in Bitter Creek, Pioneer Canyon, Placer Creek, Mallette and Upper Watershed. Three seasons sampling of these mine sites is complete, analytical results and interpretation are in hand. ▪ Initiated and completed a 100-year floodplain analysis for the area near the existing Questa RD administrative site. The US Army Corps of Engineers conducted this analysis. The floodplain analysis will allow further planning necessary for the replacement of the District Office and other facilities. ▪ Continued with a comprehensive field inventory of watershed improvement needs on forest lands between Arroyo Hondo and Questa. <u>Supervisor's Office</u> ▪ Provided watershed effects reports for NEPA planning for Capulin Canyon WUI, Red Mesa WUI, Tusas Grazing Allotment, and Sipapu Ski Area EIS. ▪ Provided wetland and floodplain consultation for the Zera small tracts land

Program Area	Summary of Monitoring Conducted and Evaluation
	exchange. ▪ Conducted wildfire damage assessments, planning and implementation oversight to the Ponil and Montoya wildfires under the Burned Area Emergency Rehab authority. ▪ Supported efforts by private landowners, State, Federal and local governments and other interested and affected parties evaluate watershed effects of the Ponil Fire and to identify potential sources of financial support for rehabilitation and restoration activities. This effort was supported by the NM Environment Department, Surface Water Quality Bureau. ▪ The Carson NF Fisheries Program monitored 53 miles of stream this year to assess fisheries habitat condition, using the R3 Stream Inventory Technique. 15 fish population surveys were conducted to determine existing viable populations of Rio Grande Cutthroat Trout and other species on the Forest. 26 macro-invertebrate samples were taken to determine whether habitat impacts exist. ▪ Collected geoposition data on 1500 miles of roads Forest wide. ▪ Provided stream health assessment training by Corky Ohlander for 20 Forest Service, Bureau of Land Management and State of New Mexico staff using the USFS R3/R2 T-WALK methodology. This effort was supported by the NM Environment Department, Surface Water Quality Bureau. ▪ Provided training for 30 Carson NF staff in rangeland utilization techniques developed by NMSU researchers to standardize procedures used to assess drought conditions on rangelands. ▪ Participated in 2 workshops sponsored by Quivira Coalition, focused on induced meandering stream restoration techniques developed by Bill Zeedyk.
Soil and Water 2 Best Management Practices	**Goals:** Production of water from forestlands will meet State water quality standards. **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. **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: ▪ 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 Tres Piedras 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

Program Area	Summary of Monitoring Conducted and Evaluation
	most significant results.
Soil and Water 3 Roads	**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. **Monitoring:** Road design, construction, maintenance and density. **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 2002. 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. Camino Real Ranger District ▪ Performed routine road maintenance on approximately 77 miles of roads district-wide through contract and 25 miles using the C&M crew. Canjilon Ranger District: ▪ Performed road maintenance on 55 miles of road district wide. ▪ Removed culvert and constructed low water crossing on Forest Road #724, and improved culvert splashpad and armored culvert inlet on Forest Road #337. These actions were conducted as part of the Montoya Fire Burned Area Emergency Rehab (BAER). El Rito Ranger District ▪ Forest roads 137, 44, 106, 172, 97, 719, and 110 received maintenance, consisting of 70 miles of grading, brush removal, drainage and culvert cleanout. ▪ Forest Roads 106A, 123,458, and 274 (twice) were bladed to prevent further deterioration of roads. A total of 25 miles were maintained. ▪ Approximately 8 miles of road were decommissioned within the El Rito Creek 5th order watershed. Jicarilla Ranger District ▪ 2.0 miles of road reconstruction on FOR 314 along Carriso and Companero drainages, including surfacing with sandstone, replacing 2 culverts, and installing 1 new culvert. ▪ Spot sandstone surfacing on approximately 1/2 mile on FR 311 and FR 312. ▪ Approx. 120 miles of road received maintenance through our continued partnership with the oil and gas companies via the Jicarilla RD Roads Committee. Tres Piedras Ranger District ▪ Total of 69 miles maintained District wide.

Program Area	Summary of Monitoring Conducted and Evaluation
	Questa Ranger District ▪ Maintained road improvements put in place on the Lower Bitter Creek road in partnership with NMED-SWQB under a 319(h) grant. ▪ Coordinated with NM Department of Transportation on water quality, erosion and watershed management issues during the re-construction of State Highway 522. ▪ Completed heavy maintenance on 1 mile of FR 486 (Goose Lake Rd.) to restore road drainage and road stabilization prior to implementation of the 319 grant. ▪ Completed routine maintenance on approximately 60 miles of roads.
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 is expected to be completed in early 2003. In addition over 2,440 miles of road, level 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 2003. 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 2002. Roads have been moved out of meadows and canyon bottoms where feasible, and riparian function has been improved with structural and nonstructural improvements. Supporting documentation is located at the Forest Supervisor's office.
Recreation 1	**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. **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

Program Area	Summary of Monitoring Conducted and Evaluation
	and avoided if possible. **Results:** No decisions on site-specific projects in FY 2000, 2001 or 2002 have caused an analysis area's ROS class to change**.**
Recreation 2	**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. **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. 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. 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. **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 experienced steady use. Santa Barbara Campground is still under reconstruction. Monitoring ski area operations has not exposed any noncompliance or safety violations. Skier visits to respective ski areas.

Program Area	Summary of Monitoring Conducted and Evaluation

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

The Enchanted Forest continues to provide cross-country skiing opportunities for approximately 2,200 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 2002continued to pressure Taos Ski Valley regarding allowance of snowboarding. This decision has been left 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.

Recreation 3

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

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.

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.

Recreation 4

Goals: All developments are high quality and well maintained. They fill the needs of the users.

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.

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

Program Area	Summary of Monitoring Conducted and Evaluation
	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. 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. **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.
Recreation 5	**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. **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. **Results:** Non-ATV hunters have been complaining over the increasing use of ATVs 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
Trail Maintenance (miles)	40	20	162
Trail Condition Surveys (miles)	75	50	50
Trail Reconstruction (miles)	7	7	6

Program Area	Summary of Monitoring Conducted and Evaluation
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. However, The Carson National Forest is maintaining the integrity of the roadless areas pending outcome of the litigation process. **Results:** For the most part, the implementation of the Roadless Area Conservation proposal 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. **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 2002, 162 of the 639 miles of trail were maintained and 6 miles of trail were reconstructed. <u>Camino Real Ranger District</u> ▪ Conducted trail maintenance on approximately 44 miles throughout the district. Cleaning and maintenance of existing drainage structures and re-construction of water bars, and trail clearing were the primary improvements made. <u>Questa Ranger District</u> ▪ Reconstructed 4 miles of trail in close proximity to surface waters. These projects sought to remove or reduce impacts from recreational use and provide needed drainage improvements. ▪ Conducted trail maintenance on approximately 20 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

Program Area	Summary of Monitoring Conducted and Evaluation
	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 reduced each year. 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.
Wilderness 2	**Goals:** Maintain an enduring high quality wilderness trail system that is a source of minimal resource damage. **Monitoring:** The assessment is based on professional judgment of recreation specialists, public comments and information from Regional, Forest and District recreation managers. **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. 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.

Program Area	Summary of Monitoring Conducted and Evaluation
Wild and Scenic Rivers	**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. **Monitoring:** Eligibility assessments have been conducted on all ranger districts with the exception of Canjilon Ranger District. These assessments involved an analysis team of field personnel – 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. 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. **Results:** Sixty-five river segments have been identified as eligible for Wild and Scenic designation. Supporting documentation is located at the Forest Supervisor's office. The outstandingly remarkable values for which each segment was deemed eligible will be protected until a suitability study has been completed or Congress designates it as a Wild and Scenic River. Supporting documentation is located at the Forest Supervisor's Office. The outstandingly remarkable values of the Rio Grande and Rio Chama are being maintained.
Lands	**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. **Monitoring:** Conditions to be monitored are dictated by individual projects, applications, annual programs, etc. **Results:** Approximately 600 Special Use Permits related to real estate are administered on the Carson National Forest. In 2002, 23 new permits were processed and 200 permits (approximately 35%) were administered to standard. Supporting documentation is located at the Forest Supervisor's Office.
Protection 1 Drinking Water	**Goals:** Comply with state health and sanitation - codes to protect public health. AII 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. **Monitoring:** Monitor all potable water systems open to public use.

Program Area	Summary of Monitoring Conducted and Evaluation
	Results: Water samples are taken once a month from all campgrounds (when open) and Forest Service administrative buildings (year-round). In 2002, tests found that water at all the campgrounds was safe. Supporting documentation is located at the Forest Supervisor's office.
Protection 2 Fire Suppression	**Goals:** Provide effective fire suppression to reduce or minimize fire risk as the projected increase in population is realized. **Monitoring:** Determine the effectiveness of fire suppression by -- 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. **Results:** The 2002 fire season was one of the most challenging on record. As of early October, more than 1.05 million acres of public and private lands burned in the Southwest region—more than twice the 10-year national average. The largest fires on the Carson National Forest were the Ponil and the Montoya. Many of the Carson's personnel contributed to the national fire fighting effort during the summer of 2002. The Carson National Forest faced the possibility of an unprecedented fire season in 2002. The Carson had a total of 56 starts in 2002, which burned a total of over 30,000 acres. Although the majority of fires were less than one acre in size, four fires exceeded 40 acres. They were US Hill – 56 acres, Posos II – 130 acres, Montoya – 2,850 acres, and the Ponil Fire – 92,194 acres of which 26,734 acres were on the Carson National Forest. Wildfires on the Carson 1999-2002

	1999	2000	2001	2002
Total Acres	342	160	226	31,238
Average Size (acres)	28.5	3.0	4.5	558
Number of Fires	12	53	50	56
Largest fire (acres)	323	185	50	92,194

	The magnitude of these fires is the result of two primary factors: a severe drought, accompanied by a series of storms that produced thousands of lightening strikes followed by windy conditions; 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 out forests and rangelands.
Protection 4	**Goals:** Law enforcement efforts by the Forest Service, and aided by cooperative

Program Area	Summary of Monitoring Conducted and Evaluation
Law Enforcement	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. ▪ 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 2002 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.
Air Quality Visibility – Class I Areas	**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. **Monitoring:** Determine baseline condition of visibility and determine if any visibility degradation is occurring in the Class I areas. **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 2002 was the second year of data gathering at this site. In the mean time, photo documentation will continue.
Timber 1	**Goals:** Achieve a more balanced age class distribution, appropriate growing stock levels, appropriate rotations and provide wildlife habitat and other resource needs. Ensure that – 1) Rotation age and CMAI assumptions are correct -- silvicultural prescriptions follow management areas standards;

Program Area	Summary of Monitoring Conducted and Evaluation
	2) Silvicultural prescriptions precede vegetative treatments; 3) Silvicultural prescriptions are practical and achieve desired results. **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. **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 over extensive landscapes. 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. 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.
Timber 2 Timber Assumptions	**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. **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: ▪ board foot/cubic foot ratios are correct; ▪ volume/acre yield Is correct; ▪ management area descriptions are correct; ▪ schedule of acres harvested is correct. **Results:** The Carson National Forest large sale timber program was very limited in 1999-2002. Several small fuelwood and viga sales did occur. 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. The boardfoot/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.
Timber 3	**Goals:** Annual sale offerings will be made on a sustained yield basis. Meet Federal

<table>
<tr><th>Program Area</th><th>Summary of Monitoring Conducted and Evaluation</th></tr>
<tr><td>Sawtimber and Products</td><td>regulation, measure output; assure allowable sale quantity is not exceeded.

Monitoring: PAMARs or other annual reporting systems and programmed harvest reports.

Results: The large sale timber program of the Carson was not implemented in 2002. Several small sales, fuelwood and vigas, did occur. The amount harvested was below the minimum ingrowth on the Carson ensuring sustained yield.

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.</td></tr>
<tr><td>Timber 4
Fuelwood</td><td>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.

Monitoring: Review annual total of firewood sale reports, total firewood advertised but not sold, free use and administrative or other use.

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.

<table>
<tr><th></th><th>FY2000</th><th>FY2001</th><th>FY 2002</th></tr>
<tr><td colspan="4">Latillas, and small products not convertible to volume</td></tr>
<tr><td>Permits</td><td>1,655</td><td>481</td><td>649</td></tr>
<tr><td colspan="4">Fuelwood</td></tr>
<tr><td>Permits</td><td>3,918</td><td>3,686</td><td>3,775</td></tr>
<tr><td>Volume (cords)</td><td>19,001</td><td>14,132</td><td>18,377</td></tr>
</table>
</td></tr>
<tr><td>Timber 5
Openings</td><td>Goals: Improve wildlife habitat through timber harvest by manipulation of stand sizes, methods of cut and juxtaposition of stands.

Monitoring: Insure stand size of other harvest areas is appropriate through EA, presale and administrative reviews, and post sale reviews/project area.

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.</td></tr>
<tr><td>Timber 6</td><td>Goals: All lands harvested for timber production as part of the allowable sale</td></tr>
</table>

Program Area	Summary of Monitoring Conducted and Evaluation
Practices and Assumptions	quantity are adequately restocked within 5 years after final harvest. **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. **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 2002.
Timber 7 Unsuitable Timberlands	**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. **Monitoring:** Evaluate the accuracy of suitable timberlands classification through -- 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. The data monitored will be used as the basis for an evaluation to determine which lands are suited to timber production. **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 category.
Minerals	**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. **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. **Results:** A Forest Geologist was hired in FY 2002. 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

Program Area	Summary of Monitoring Conducted and Evaluation
	commence in FY 2002 concerning unleased lands and surface occupancy on this ranger district. The EIS is expected to include information related to a Forest Plan amendment concerning gas drilling. The EIS should be completed in FY 2004.
Range 1 Unsatisfactory Range	**Goals:** Bring unsatisfactory ranges to satisfactory condition through increasing management intensity levels, constructing structural range improvements, adding nonstructural range improvements. **Monitoring:** Use allotment analysis data to update Grazing Statistical Report. **Results:** The drought over the last few years continued in 2002. 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.
Range 2 Range Condition and Trend	**Goals:** Range conditions will be improved at 2030 by decreasing unsatisfactory range to 68,883 acres; and increasing satisfactory range to 753,244 acres. **Monitoring:** Conduct range analysis per Regional standards by qualified Range Conservationists. **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.
Range 3 Management Plans	**Goals:** Prepare or update grazing allotment or unit management plans on 75 percent of the National Forest allotments. **Monitoring:** Track allotment management plans through PAMARS. **Results:** The Forest completed one allotment management plan. However, the Forest is behind in meeting the schedule outlined in the Burns Amendment to the Recission Act. The Forest is striving to complete the analysis and documentation phase on numerous allotment environmental analyses.
Range 4 Range Development	**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. **Monitoring:** Track data on completed range improvements (fences, waters, revegetation, etc.) through the existing RAMIS system and the annual grazing statistical report. **Results:** The needed data was reviewed, verified and entered in the Infra database by District personnel. The Range Infra Deferred Maintenance database has replaced

Program Area	Summary of Monitoring Conducted and Evaluation
	the RAMIS database.
Range 5 Permitted Use	**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. **Monitoring:** Track through data generated from grazing permits and displayed in Grazing Statistical Report. **Results:** All permitted Use data for stocked allotments was verified/updated in the Range Infra database by Forest Personnel in FY 2001 and 2002.
Range 6 Grazing Capacity	**Goals:** Grazing capacity is expected to exceed permitted use through the fifth decade. **Monitoring:** New analysis data updates Annual Grazing Statistical Report. **Results:** The grazing capacity was verified for the Miranda allotment through the NEPA process.
Visual Quality 1	**Goals:** Prevent acres with visual quality objectives of Retention or Partial Retention from being reduced more than 20% by. **Monitoring:** The Visual Resource Management System will be used as a basis of the monitoring activity. **Results:** There was no activity that would reduce the visual quality objectives of Retention or Partial Retention in 2002.
Visual Quality 2	**Goals:** Visual Quality levels will be maintained or enhanced. **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. 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.
Forest Plan Implementation	**Goals:** Assure compliance with and implementation of the Carson Forest Plan in accordance with its stated mission, goals, objectives and standards and guidelines. **Monitoring:** This will be done in light of funding or any other constraints **Results:** Each project implemented in 2002 was evaluated to insure compliance with the Forest Plan. There were no Forest Plan amendments in 2002.

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.

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 any ground disturbing proposals to assure protection or mitigation of cultural and/or historic sites. Supporting documentation is located at the Forest Supervisor's office.

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.

2

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 2002. 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 forbearer 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 2002. Northern New Mexico experienced some of the largest fires on record for the State with the Ponil Fire burning over 90,000 acres. Lightning activity was prominent throughout much of June and July. Late season fire activity was higher and more severe than normal. Fire activity throughout the Southwest was high with numerous 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 continue 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 he amount of pinyon in these woodlands. The potential is to see the woodlands become juniper savannahs is 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.

Multiple Benefits to People

In FY 2002, 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.

3

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.

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.

--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.

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 1999:

This white paper was not included as a recommendation in the 1998 Monitoring Report.

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.