

SANTA FE NATIONAL FOREST
FOREST PLAN
MONITORING AND EVALUATION
REPORT
FY2000

Contents

FOREST SUPERVISOR'S CERTIFICATION AND INTRODUCTION

Forest Plan Amendment & Revision
Inventory & Assessment

SUMMARY OF MONITORING ACTIVITIES

EVALUATION OF MONITORING RESULTS

What did you learn from monitoring and what actions or changes occurred as a result of monitoring? What monitoring/inventory methods/techniques have you changed or improved as a result of monitoring?

What internal/external changes occurred last year that affected the forest?

What progress have you made toward achieving desired conditions?

What public involvement in monitoring/evaluation worked or didn't work?

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

FOREST SUPERVISOR'S CERTIFICATION and INTRODUCTION

Forest Supervisor's Certification of Forest Plan Sufficiency

I certify that the Santa Fe National Forest Plan as amended is sufficient to guide management of the Forest over the next year. The *Needs for Change: Preliminary Recommendations for Updating the Forest Plan* section in the monitoring report identifies changes that are necessary in order to maintain the viability of the Plan.

/s/ Leonard Atencio
LEONARD ATENCIO
Forest Supervisor

March 19, 2001
Date

This Monitoring and Evaluation Report meets regulatory requirements for completing an annual report (36 CFR 219).

Forest Plan Amendment & Revision

We did not complete any Forest Plan amendments this last year.

Updated agency regulations governing Forest Plan revisions (at 36 CFR 219), have not been approved by the Secretary of Agriculture. Therefore, we are not expecting to begin Forest Plan revision until fiscal year 2002.

Inventory & Assessment

We are continuing to build our Forest's inventories and assessments for use in environmental planning and analysis work. We are continuing to make progress on creating GIS layers for past mining sites, oil/gas leasing sites, heritage resource areas of high site density or value (75% of forest), road status (80% of forest), and dispersed recreation sites (75% of forest). We are continuing to make progress in building our "INFRA" database for roads, trails, range structures (eg fences, water tanks), buildings, developed recreation sites, and other facilities. This included using the Geographic Positioning System (GPS) to map the locations of trails and facilities, collecting data about physical attributes and conditions, and taking photographs.

We are still in the process of completing a detailed assessment of the Rio Guadalupe watershed. We have just completed the Draft Environmental Impact Statement for the Santa Fe Municipal Watershed, which will be available for public review within the next 30 days.

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

Summary of Monitoring Activities

The following table summarizes monitoring activities performed. The four columns consist of:

1. The resource being monitored.
2. The type of monitoring action accomplished.
3. The location of monitoring documentation: Ranger District (RD), Supervisor's Office (SO), or another location.
4. The resource areas (Districts) where monitoring was conducted.

| RESOURCE | MONITORING ACCOMPLISHED | RECORD | RESOURCE AREAS |
|----------------------------------|---|------------------------------|----------------|
| Climate | Recorded weather data at RAWs station, including fuel moisture data, used primarily for fire/fuels mgmt. | SO Fire | All |
| Climate | Collected live fuel moisture samples to monitor the effects of drought in different elevations/life zones | SO Fire | All |
| Customer Service | Collected and read visitor comments on fee envelopes and trailhead registers, and letters to District from visitors (kept for a few years) | Letters in RD-Correspondence | All |
| Facilities | Inspected permit compliance for powerlines and electronic sites | RD-permits | All |
| Fish | Coordinated effort with NMG&F to determine whirling disease infected streams | State | All |
| Heritage Resources | Monitored specific HR sites for evidence of vandalism, damage, theft (by site stewards) approximately 200 sites | SO-HR | All |
| Heritage Resources | Surveyed for HR sites in project areas | Reports in SO-HR | All |
| Pest Mgt. | Surveyed for gypsy moth, multiple species, using traps to determine presence/absence and track spread | RO | All |
| Pest Mgt. | Aerial survey, map and report of insect/disease activity (annual, by RO) | Map & Rpt in SO-For. | All |
| Range Condition, Range Readiness | Inspected range conditions to determine readiness for cattle entry – 15 allotments | Photos & Doc. in RD-Range | All |
| Range Facilities | Inspected & inventoried constructed range improvements; verified condition and effectiveness of structures. 30 allotments | SO-Infra DTB, with GIS link | All |
| Recreation Trails | Field inventoried trails, including culverts, water bars, etc. | SO-Infra database | All |
| Roads | Monitored 2% (110 mi) of Maintenance Level 2 roads, (including culverts, signs, cattleguards). | SO Roads Files | All |
| Roads | Monitored 255 miles and performed annual maintenance on 82.5 miles of maintenance level 3+ roads; Monitored 73 miles and performed deferred maintenance on 23 miles of maintenance level 3+ roads | SO Roads Files | All |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

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|-------------------------|---|---------------------------------|-----------------|
| Roads | Inspected and replaced/repared signs on approximately 150 miles of road. | SO Roads Files | All |
| Timber | Timber sale compliance with Heritage resources, 5 sales, (improvements, roads, fuel treatments within sale boundaries) | Sale folders | All |
| Vegetation | Inspected thinning (commercial and non commercial) contracts, harvest contracts weekly (i.e. for stream course protection) | RD files | All |
| Vegetation, Inv. Plants | Surveyed for and mapped inventory of invasive plants (i.e. noxious weeds) | SO-GIS | All |
| Water Quality | Monitored water quality of streams, annually (by NMED in cooperation with FS) | State 305B Rpt., in SO-Hydro | All |
| Water Quality | Monitored water quality of wells and other facilities that provide drinking water, at least annually (by NMED) (cross check under recreation) | SO-Eng files | All |
| Water Yield | Recorded snow-course precipitation data, monthly, Jan-Apr (by NRCS) | SO-Hydro files | All |
| Water Rights | Inspected and evaluated water use at old Coyote Admin. Site for water rights assessment | SO-Hydro files | Coyote-Española |
| Vegetation, Soil | Monitored effectiveness of thin/burn treatments in Gallinas for improving upland vegetation, this included non-commercial thinning, firewood, roads, access, and prescriptions. Setting up photo points before and after treatment activities. (Gallinas River watershed) | RD files | Coyote-Española |
| Climate | Snow course precipitation data, read monthly, Jan-April | NRCS survey data in hydro files | Coyote-Española |
| Climate | Recording data station (RAWS), local weather data, use primarily for fire/fuels mgt. Fuel moisture data, | Database in Fire file: SO | Coyote-Española |
| Climate | Cerro Grande RAWS – 8 stations | WRC Center | Coyote-Española |
| Customer Service | Read visitor comments on fee envelopes and trailhead registers (kept for few years). Read letters from forest users to District. | Letters in Correspondence files | Coyote-Española |
| Facilities | Well testing, Coyote Admin site | RD files | Coyote-Española |
| Facilities | HAZMAT inspections (Baseline) | RD/SO files | Coyote-Española |
| Fire | Smoke emissions – State, Cerro Grande | State | Coyote-Española |
| Fire | Jarosa burn – monitored for meeting objectives for fuels reduction, photo series | RD files | Coyote-Española |
| Fire, Vegetation | La Sotella pre burn (baseline) fuel inventories | RD files | Coyote-Española |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

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| Fire, Wildlife | Pres burning, Garcia (part returned in the Cerro Grande fire), Comanche pb effects, Baseline data for Caja sagebrush p.b. veg inventory transects also did Grassbanks | RD files | Coyote-Española |
| Fish | PHD on Fire effects on water quality and aquatic macro invertebrates – Pre and post Cerro Grande fire | CSU | Coyote-Española |
| Heritage | Monitored heritage sites prior to dam construction – Martinez Lake | RD and SO files | Coyote-Española |
| Heritage | Monitored heritage site at Mesa Escoba – range tank, digital photos | RD files | Coyote-Española |
| Heritage | Field monitoring of Vallecitos Creek dozer work – archeological sites | LE&I files/RD | Coyote-Española |
| Heritage Resources | 151 road, Ward Ranch (Rio Chama wilderness) effects of recreation on heritage sites | RD HR files | Coyote-Española |
| Heritage Resources | Surveyed for heritage sites in project areas. FY00 – AMP (Jarosa, Sierra Mosca), spring developments Special Use Lands, other range development projects (springs, corals, cattle guards, other range allotments – 7, admin use – Rio de Oso, Vigil Gates, Caja del Rio projects – pipeline and fuels treatment area). | SO HR files | Coyote-Española |
| Heritage Resources | Cerro Grande – inspected 64 sites impacted by suppression activities, stabilized Guaje ruin, road rehab monitoring for damage to sites, began damage assessment on Santa Clara and San Ildefonso pueblos, rehab monitoring – seeding, NRCS projects (10) | RD and SO files | Coyote-Española |
| Heritage, Recreation | Closure of illegal trail, fencing off at Tshipin ruins | RD files | Coyote-Española |
| Hydrology | Partial reinforcement of Los Alamos reservoir post Cerro Grande | ACOE | Coyote-Española |
| Lands, SUP | Unauthorized surface disturbance on Rio Frijoles (Barranca) | LE&I files/RD | Coyote-Española |
| Law Enforce Legal/Illegal Activities | Compliance with laws, regs, permits illegal dump sites, (baseline) | Law Enforcement files | Coyote-Española |
| Law Enforcement | FPO inspections | LE&I, and RD files | Coyote-Española |
| Minerals | Guaje pumice mine compliance inspections, Uranium mine reclamation site - La Bajada | RD files, NMED | Coyote-Española |
| Partnership Volunteers | Maintain data on hours worked by volunteers and partners, locations, and work done, | RD Rec and Heritage files, Vol. report and inspection | Coyote-Española |
| Pest Mgt. | Gypsy moth traps used to determine presence/absence and track spread | Surveys in I/D file: RO files | Coyote-Española |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

| RESOURCE | MONITORING ACCOMPLISHED | RECORD | RESOURCE AREAS |
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| Pest Mgt. | Bark beetle field and satellite surveys, Resumidero | Surveys in RO I/D files | Coyote-Española |
| Range | Constructed range improvements inventoried, & condition verified. FY00 - 20 allotments, continuously ongoing | Infra Database, with GIS link | Coyote-Española |
| Range | Inspected range conditions to determine readiness for cattle entry. FY00: 14 allotments Espanola, Coyote | RD files | Coyote-Española |
| Range | Range allotment inspections to monitor: permit compliance, utilization in key use areas, range conditions. FY00: 20 allotments | Inspection forms & photos in Range files | Coyote-Española |
| Range | Riparian Enclosures, 15 on Coyote, 3 tanks on Espanola RD | RD files | Coyote-Española |
| Range | Inspected effectiveness of constructed range improvements. FY00: 20 allotment | RD files | Coyote-Española |
| Recreation | Trails/roads post fire hazard tree removal | RD files | Coyote-Española |
| Recreation Outfitters, Guides | Checked permit compliance and resource conditions, 30 permits | RD Permit files | Coyote-Española |
| Recreation Special Use Permits | Ski area permit compliance inspections annually, Parking lot, lift line, and fence const. project | RD Permit files | Coyote-Española |
| Recreation Trails | Monitored trail reconstruction FY00 | RD Permit files | Coyote-Española |
| Recreation, Dev. Sites | Walk-through inspections for all developed sites, campground hosts, weekly visits. Inspections for hazard trees, site and facilities conditions. Facility condition survey – Ski basin road, Rio Chama | Hazard tree & facility insp. In RD files. | Coyote-Española |
| Recreation, Developed Sites | MM – additional 20% of trails, 40% of general forest areas | MM spreadsheet, Infra database, GIS, and rec files | Coyote-Española |
| Recreation, Dispersed Sites | Dispersed site inventories non-wilderness; not field verified | No records | Coyote-Española |
| Roads | Inspected RD roads (Baseline) | SO files (FR151) | Coyote-Española |
| Roads | Work order list and maintenance needs based on monitoring district road conditions | RD/SO files | Coyote-Española |
| Roads | Cerro Grande post-fire road rehabilitation monitoring | Rd files | Coyote-Española |
| Roads | Inventoried culverts/drainage structures on all roads in Cerro Grande Burned Area. | BAER documents | Coyote-Española |
| Roads | Monitored effects of fire suppression equipment (dozers) on Cerro Grande Burned Area and post-fire effects on roads and appurtenances. | BAER documents | Coyote-Española |
| Roads | Inventoried sediment catch basins constructed during Cerro Grande Fire Rehab. | Not documented | Coyote-Española |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

| RESOURCE | MONITORING ACCOMPLISHED | RECORD | RESOURCE AREAS |
|-------------------------|--|---|-----------------|
| Soils | Monitoring plots established in Cerro Grande Fire for measuring soil loss and erosion | RD files | Coyote-Española |
| Soils, Vegetation | Radiation monitoring | LANL, State | Coyote-Española |
| Special Use Permits | FR 474, road mtnc monitoring, road use | RD/SO files | Coyote-Española |
| Special Use Permits | Inspections - McWilliams water system | RD/SO files | Coyote-Española |
| Special Use Permits | FR 474, road maintenance monitoring, road use | RD/SO files | Coyote-Española |
| Special Use, Vegetation | Vigas, latillas, Christmas tree, cedar posts, rocks, wildings, flagstone, surface rock, | Permit files | Coyote-Española |
| Timber | Jarosa Timber sale monitored for meeting marking prescription prior to being sold | RD files | Coyote-Española |
| Timber | Jarosa Timber sale, monitored post harvest to determine if prescription was met | RD files | Coyote-Española |
| Vegetation | Invasive weed surveys and mapping | GIS layer | Coyote-Española |
| Vegetation | Thinning contract inspections – 3 Coyote, Admin site – Compound piñon/juniper, district wide firewood Coyote (greenwood – one area), Espanola firewood - Borrego Mesa, Lovato, Los Alamos, Garcia Canyon contractor, | RD timber/small sale files | Coyote-Española |
| Vegetation | Jarosa timber sale inspections, several times/week to monitor harvest activity | RD timber files | Coyote-Española |
| Vegetation | Santa Fe Watershed, timber stand exam baseline, photo point thinning, rephoto, thinning BA/acre with photo doc. Fuels inventory NFFL fuel models, arch survey of demo project | RD project files | Coyote-Española |
| Vegetation | Monitored condition of Canada Bonito RNA after Cerro Grande Fire | SO files | Coyote-Española |
| Vegetation | Post fire monitoring for timber salvage | RD files | Coyote-Española |
| Water | State water testing Coyote Admin site | State | Coyote-Española |
| Water and Safety | Dam breached and reconstructed to meet state eng specifications, monitored construction – Martinez Lake | RD files, State Eng (water rights) | Coyote-Española |
| Water Quality | Annual water quality monitoring by NMED, FY00: Gallina river watershed (Coyote), Santa Fe Watershed and Cerro Grande tributaries - 10 | State 305B Rpt., in Hydro file, NMED, USGS LANL | Coyote-Española |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

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| Water Quality | Proper functioning condition surveys. FY00: Rio Frijoles | RD Range file | Coyote-Española |
| Water Quality | Monitor wells for drinking water, any FS facility that supplies drinking water, nitrate/nitrate on any wells that provide drinking water. Old Coyote RD. | Reports in files to S. Baker and NMED | Coyote-Española |
| Water Quality | Test wells on Caja, Santa Fe municipal watershed, WQ testing | Santa Fe River, Santa Fe Watershed, City | Coyote-Española |
| Water Quality | Post fire water sampling in streams for contaminants | NMED | Coyote-Española |
| Water Quality, Hydrology | Began implementation of monitoring plan for hydrological functions on Cerro Grande fire | RD files | Coyote-Española |
| Water Rights | Monitoring wells, water use, Coyote administrative site, all water related developments in the Gallina River watershed, Santa Fe ski Basin water usage – snowmaking and domestic uses | SO Hydro files | Coyote-Española |
| Water Yield, | Snow course plus flow stations, Whole Rio Grande and Chama river. Runoff and storage- NBS, contractor, FS evaluation effects on riparian vegetation BOR, NPS, Corps, (Coyote station) | Corps records | Coyote-Española |
| Wildfire, Vegetation and Fire | Mesita fire, doc of fire effects – planned to be broadcast burned (based on reevaluation) | RD wildlife files, fire has slides | Coyote-Española |
| Wildlife | Water development monitoring post fire | BAER documents | Coyote-Espanola |
| Wildlife | Monitored nest boxes in Project areas, Clean out, photo point monitoring of piñon-juniper personal use non commercial thinning | RD wildlife files | Coyote-Española |
| Wildlife | BAER mapped burned Jemez Mountain Salamander habitat | BAER report | Coyote-Española |
| Wildlife | Inventoried MSO PACs that were burned – BAER biologists, northern goshawk territories, peregrine falcon areas habitat – burn intensity | BAER report | Coyote-Española |
| Wildlife | Cerro Grande benthic invertebrate inventory pre and post fire Guaje drainage | Colorado state University | Coyote-Española |
| Wildlife | Monitored seasonal closure gates, 7 gates, to determine effectiveness | No records | Coyote-Española |
| Wildlife and Plants, | Jemez Salamander Surveys – Cerro Grande Burn area, compared to previous data on file, new areas inventoried, | NMDG&F | Coyote-Española |
| Water right adjudication | Chama watershed springs and stock tanks, GPS and field checked | SO Hydro, RD files | Coyote-Española, Cuba-Jemez, |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

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|-----------------------------|--|---------------------------------------|----------------------------------|
| Wildlife | Surveyed for Jemez Mountain salamander, Valle project area, and 4 permanent plots- Jemez | GIS | Cuba-Jemez, Coyote-Española |
| Roads | Maintained 16 miles of maintenance level 2 roads in Cerro Grande Burned Area during and after the fire. Maintained 68.2 miles of maintenance level 2 roads in Viveash Burned area during the fire and 16 miles after the fire. | BAER documents | Coyote-Española, Pecos-Las Vegas |
| Water Flow, Yield; Riparian | Recorded snow-course & streamflow data for Rio Grande and Rio Chama, incl. runoff and storage (USBS). Completed interagency evaluation of effects on riparian vegetation | Army Corps, & Park Service files | Coyote-Española, Pecos-Las Vegas |
| Oil and Gas | Permit compliance inspection and monitoring. Surface inspection of recently closed mines. | RD files | Cuba-Jemez |
| Water Quality | Monitored permit compliance for domestic water sources (on Forest) for Cuba, La Jara, & Regina water supply. | Cuba, La Jara & Regina | Cuba-Jemez |
| Air Quality | San Pedro Parks wilderness | UC Berkeley | Cuba-Jemez |
| Facilities | Annual inspections of lookouts, cabins, compounds, field buildings | SO files | Cuba-Jemez |
| Fire | Inspected private homes within wildland interface for fire protection | No records | Cuba-Jemez |
| Fire, Vegetation | Inventoried and mapped fuels vegetation, using air photos & field checks. | RD-fire files | Cuba-Jemez |
| Fire, Vegetation | Monument Canyon RNA | RD-fire files | Cuba-Jemez |
| Fire/Timber | Visual surveys of private homes within wildland interface for fire protection | No records | Cuba-Jemez |
| Fish | Virgin Canyon fisheries assessment | SO files | Cuba-Jemez |
| Fish | Surveyed fisheries and riparian habitat conditions (American, Palomas) | SO fisheries files | Cuba-Jemez |
| Fuels/ Vegetation | Chaparral and Virgin Project areas and Lakefork Mesa. Established (surveyed and marked) Permanent plots to monitor effects of thinning and Rx fire | RMRS, Flagstaff Carl Edminster | Cuba-Jemez |
| Fuels, Vegetation | Monument Canyon RNA. Continued data collection within 1999 plots. Boring trees to determine recruitment periods since fire exclusion. | U of A, Tree Ring Lab. research files | Cuba-Jemez |
| Heritage Resources | Inspected 20 National Register sites. | RD-HR files | Cuba-Jemez |
| Heritage Resources | Monitoring and inspections with University of Pennsylvania on Astalakwa and Patokwa | RD files | Cuba-Jemez |
| Heritage Resources | Monitoring of Law Enforcement investigations on Borrego Mesa | RD files | Cuba-Jemez |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

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| Partnership Volunteers | Collected data on hours worked by volunteers and partners, mostly recreation and heritage, Rocky Mountain Elk, San Pedro Park permittees, YCC, JTPA, YTPA, backcountry horseman, environmental education w/Cuba schools, NMED, SCSCP, Peñas Negras permittees | RD-Rec & HR files | Cuba-Jemez |
| Pest Mgt. | Salt cedar and Russian olive eradication project monitoring – 300 acres | RD files, photos | Cuba-Jemez |
| Range Condition, Readiness | Inspected range conditions to determine readiness for cattle entry. Cuba 19 allotments, Jemez 6 allotments | Photos & docs. RD-range files | Cuba-Jemez |
| Range Condition, Use | Inspected grazing use in key areas, checked range conditions and permit compliance. Cuba 13 allotments, Jemez - 6 | Forms, photos in RD-range files | Cuba-Jemez |
| Recreation Developed Sites | Monitored developed sites at least weekly, during fee collection or other site visits, or with host volunteers. Also inspected for hazard trees, and condition of sites and facilities (Cuba 2 developed sites) | No records | Cuba-Jemez |
| Recreation Developed Sites | Inventoried/inspected all developed sites, including constructed facilities within sites (detailing physical attributes and signs). Field verified and put into MM spreadsheet | MM spreadsheet, SO-Rec files | Cuba-Jemez |
| Recreation Dispersed | Inventoried/mapped dispersed sites outside Wilderness (not field-checked or GPS) | RD files | Cuba-Jemez |
| Recreation Outfitters /Guides | Inspected outfitter/guide campsites for vegetative recovery, other resource conditions and permit compliance - 10 on Cuba | RD-permit files | Cuba-Jemez |
| Recreation Trails | Field inspected trails, including culverts, water bars, etc. (90% Cuba) | SO-INFRA Database | Cuba-Jemez |
| Roads | Inspected effectiveness of past road decommissioning, and included 8 miles of new obliteration | RQM, | Cuba-Jemez |
| Roads | Inspected effectiveness of cattle guards, | RD files | Cuba-Jemez |
| Roads | Annual maintenance and road closure inspections | SO Eng files | Cuba-Jemez |
| Rx Fire | Stable Rx Burn. Weather and associated prescription parameters, fire behavior, consumption of litter and large woody fuels. | RD Fire files | Cuba-Jemez |
| Rx Fire | Fieldtrip with Jemez Pueblo Tribal Council Member to evaluate mortality within Stable Rx Burn Project Area | Photos in Pueblo and District files | Cuba-Jemez |
| Rx Fire | Mudsprings – Monitor weather, prescription and fire behavior during Rx burn. | RD Fire files | Cuba-Jemez |
| Rx Fire | Mudsprings – Site visit to determine need for maintenance burning. Included assessment of fuels build up and live vegetation regeneration following prescribed burning at 5 years and 8 years. | RD Fire files | Cuba-Jemez |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

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| Rx Fire Rehab | Evaluated effectiveness of applied mitigation measures following Stable Rx Burn. (Tank construction at mouth of Schoolhouse Canyon) | SO files | Cuba-Jemez |
| Soils | District roads monitored for on/off road use, | Project files | Cuba-Jemez |
| Soils | Collected and evaluated soil samples for radiation (Los Alamos Nat. Lab) | LANL | Cuba-Jemez |
| Soils, Mine Reclamation | Inspected effectiveness of mine reclamation on soil/vegetation, Las Nacie | RD-Minerals files | Cuba-Jemez |
| Special forest products | Christmas tree permits (3,500), firewood (4,000), boughs (80 tons) | TIMS, TSA in SO files | Cuba-Jemez |
| Vegetation | Reforestation survival exams, 350 acres, | RD files | Cuba-Jemez |
| Vegetation, Inv. Plants | Inspected effectiveness of Russian olive/salt cedar eradication, riparian enhancement project, 300 acres | RD-Watershed files | Cuba-Jemez |
| Water | Monitoring conditions of Nacimiento ditch | RD and SO files | Cuba-Jemez |
| Water Quality | Monitored effectiveness of rehabilitation of Oak Canyon Road | Rd files | Cuba-Jemez |
| Water Quality | Surveyed streams using Proper Functioning Condition protocol (American Creek, Clear Creek, Rio Las Vacas, Palomas, Rito Café, Rio Peñas Negras, Rock Creek) | SO-Hydro files | Cuba-Jemez |
| Water Quality | Monitored water quality of wells and other facilities that provide drinking water, at least annually (Cuba – horseshoe springs, clear creek, Rio La Vacas, Ojito Frio, Battleship, and Redondo) | SO-Eng files | Cuba-Jemez |
| Water Quality | Monitored water quality on tributary creeks to Jemez River (by Pueblo). | Jemez Pueblo | Cuba-Jemez |
| Water Quality | Monitored Joaquin and Virgin Creeks for stream conditions | No Data | Cuba-Jemez |
| Water Quality | Monitored Thompson Ridge small sale winter logging effectiveness on stream course protection | RD files | Cuba-Jemez |
| Water Quality | Proper Functioning Condition (PFC) and T-walk surveys on Valle Calderas tributaries; East Fork, San Antonio, and Jaramillo Creek, PFC on Indian, Sulphur and Redondo Creeks | RD Files | Cuba-Jemez |
| Water Quality | Inspected effectiveness of watershed restoration work, Rio Puerco (BLM) | BLM | Cuba-Jemez |
| Water rights | Collected and evaluated flow data: Rio de las Vacas acequia (ditch) | SO-Hydro files | Cuba-Jemez |
| Water, Mine Reclamation. | Monitored water quality at Nacimiento mine, checking effectiveness of reclamation, by RO | SO-Hazmat files | Cuba-Jemez |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

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| Wildlife Species & Habitat | <p>Surveyed 10 spotted owl PACs (10,000+ ac.)</p> <ul style="list-style-type: none"> - Surveyed for goshawk, 42500 ac. - Surveyed breeding birds, 25,000 ac. - Surveyed effectiveness of elk hunt in reducing population in Dome/ Bandelier area, using check stations (with NM Game & Fish) - Inspected for black bears near recreation sites - Surveyed for elk/deer populations (NM Game & Fish) -Predator control | RD-Wildlife files | Cuba-Jemez |
| Fire, Vegetation | Monitored effectiveness of Rx burns using fuels plots and photo points | Photos/data in RD-Fire/Range files | Cuba-Jemez, Pecos-Las Vegas |
| Air quality | Elk mountain site monitored emissions from Viveash fire, by State NMED | NMED | Pecos-Las Vegas |
| Climate | BAER RAWs station on Elk Mtn. Early warning system | BAER/RD files | Pecos-Las Vegas |
| Fish | Inventoried Rio Grande cutthroat trout streams for fisheries mgt. (over 100 miles P/LV, including Viveash (found 4 new populations), coordinated with NMG&F and involved barrier surveys and genetic analysis | RD-Fisheries files | Pecos-Las Vegas |
| Heritage Resources | Viveash Fire – assessed damages from fire and fire suppression impacts, approximately 40 sites | RD-HR files | Pecos-Las Vegas |
| Heritage Resources | Monitored and assessed damages to sites on Road 85, 13 sites - Viveash Fire | RD-HR files | Pecos-Las Vegas |
| Heritage Resources | Continuation of collection and recording historical data at HR sites (by volunteers, site stewards, for research purposes), (Hacienda, Terrero Mine Tramway, Glorieta Mesa Rock Art, La Cueva Rock shelter) | RD-HR files | Pecos-Las Vegas |
| Hydro/water quality, fish | Stream health assessment T-walk, for main stem of the Gallinas River | RD Hydro files | Pecos-Las Vegas |
| Hydrology | Monitored post fire effects of effects to hydro based on predictions in BAER report - Viveash Fire | SO Hydro files | Pecos-Las Vegas |
| Range Condition | Continued monitoring cattle use and range conditions on Valle Grande “grassbank” (by NMSU Extension Service | RD-Range files | Pecos-Las Vegas |
| Recreation & Private Residences | Inspected residences within wildland urban interface for defensible space (Gallinas, Evergreen Valley, Macho, Dalton, Holy Ghost, Grass Mountain, Pecos, Winsor) | RD files | Pecos-Las Vegas |
| Recreation Developed Sites | Inspected Jack’s Ck for effectiveness of reconstruction work | SO-Rec files | Pecos-Las Vegas |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

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| Recreation Developed Sites | Inspected 19 developed sites yearly | SO-Rec files | Pecos-Las Vegas |
| Recreation Outfitters /Guides | Inspected outfitter/guide campsites for vegetative recovery, other resource conditions and permit compliance | RD-Permit files | Pecos-Las Vegas |
| Recreation Trails | Inspected mechanical equipment effect on trails during Viveash fire, and post fire burn effects on trails | RD files | Pecos-Las Vegas |
| Recreation Trails | Completed inventory forms about visitor contacts & trail conditions (by employees and volunteers) | RD-Rec files | Pecos-Las Vegas |
| Recreation Trails | Monitored 200 miles of trails for maintenance needs | RD files | Pecos-Las Vegas |
| Recreation Trails | Inventoried Wilderness trail use, using trail counters at trailheads. | RD-Rec files | Pecos-Las Vegas |
| Roads | Monitored effects of fire suppression equipment (dozers) on roads – Elk Mountain - Viveash Fire | RD files | Pecos-Las Vegas |
| Soils | Sediment sampling on Cow Creek for comparison with the Cerro Grande Fire | NMED | Pecos-Las Vegas |
| Soils, Mine Reclamation | Inspected effectiveness of mine reclamation on soil/vegetation | RD Mining files | Pecos-Las Vegas |
| Soils, Vegetation | Radiation monitoring from trees, cross sections, soils for comparison with Cerro Grande - Viveash Fire | EPA, Dallas, TX | Pecos-Las Vegas |
| Vegetation | Post fire vegetation recovery | NMHU | Pecos-Las Vegas |
| Vegetation | Post fire / post floods monitoring aspen regeneration, riparian vegetation, aerial seeding | RD, SO files | Pecos-Las Vegas |
| Vegetation, Rare Plants | Surveyed and mapped Arizona Willow in San Pedro Parks Wilderness | RD files | Pecos-Las Vegas |
| Water | Evaluated effects from flooding of streams from the Viveash fire | RD files BAER Report | Pecos-Las Vegas |
| Water Quality | Additional cyanide testing from retardant slurry used on Viveash Fire | MTDC | Pecos-Las Vegas |
| Water Quality | Post Viveash fire water quality testing, NMED - Cyanide testing | State, NMED Nina Wells | Pecos-Las Vegas |
| Water Quality | Monitored Gallinas municipal water supply (City) | Las Vegas -City and State | Pecos-Las Vegas |
| Wildlife | Bird transect monitoring on Johnson Mesa annual | RD Wildlife files | Pecos-Las Vegas |

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

The following (specific) Forest Plan implementation accomplishments contributed to our progress in moving toward desired conditions (from Management Attainment Report):

| | | | |
|--------------------------------|--------------------|---|------------------|
| <u>Roads/Trails</u> | | <u>Fish and Wildlife</u> | |
| Road reconstruction | 14.3 miles | Fish streams enhanced | 3 miles |
| Roads decommissioned | 25 miles | Soil/Water Resource Imp. | 810 acres |
| Roads fully maintained | 125 miles | TE&S Terrestrial Habitat | 60 acres |
| Trail const/reconst | 38 miles | Wildlife habitat enhanced | 163 acres |
| Trails maintained | 31.5 miles | | |
| <u>Vegetation/Fuels</u> | | <u>Range (Grazing)</u> | |
| Fuel hazard reduction | 10,875 acres | Allotments monitored to standard | 33 allots |
| Invasive weed treatment | 210 acres | Allotments NEPA done | 2 allots |
| Harvest volume | 12,000 CCF | Forage improvement | 1,150 acres |
| Harvest volume | 6,360 MBF | Rangelands restored/ protected | |
| Non-commercial thinning | 660 acres | by NEPA decisions | 167,500 acres |
| Reforestation | 45 acres | Range structures built | 25 structures |
| <u>Lands/Minerals</u> | | <u>Heritage (Archaeological) Resources</u> | |
| Energy acres processed | 7,360 acres | Heritage sites evaluated | 262 sites |
| Energy ops processed | 1 permit doc | Heritage sites interpreted | 5 sites |
| Land ownership adjustment | 94,815 acres | Heritage sites protected | 1 site |
| Land boundaries marked | 7 miles | | |
| Minerals/energy adm | 28 operating plans | | |
| Non-energy OPs processed | 108 operations | | |
| <u>Special Uses</u> | | <u>Human Resources</u> | |
| SUPs administered | 224 permits | Senior service | 805 enrollee wks |
| SUPs processed | 20 permits | Volunteers | 8 enrollee yrs |
| | | YCC | 32 enrollee wks |

Evaluation of Monitoring Results

1a. What did you learn from monitoring and what actions or changes occurred as a result of monitoring?

Overall the Districts felt that they are getting better at documenting monitoring. It is becoming more routine and part of their everyday work habits, and that they are integrating their resources better. **Some specific items learned include:**

Mechanical Treatments

- ❖ Mechanical treatments such as commercial and noncommercial thinning, firewood program, and special use permits for forest products are working.
- ❖ Timber sales and vegetation treatments are viable and effective tools for managing the forest.
- ❖ Winter logging over snow on the Thompson Ridge sale (Cuba-Jemez RA) was effective in protecting the hydrologic function of the stream courses.

Herbicides

- ❖ Herbicides work for controlling salt cedar and Russian olive, but the herbicide used appeared to work better on salt cedar.

Range

- ❖ Field monitoring identified range improvements such as earth tanks, springs, new improvements that have not been transferred from old maps or from people's memory to the range improvement database. Range improvements found during inventory were added to our existing records. 70% of range improvements are not on the INFRA database.
- ❖ Most range facilities have reached their life expectancy and need to be replaced.
- ❖ Poor range conditions (drought) resulted in early off in order not to degrade allotments.
- ❖ Crested wheat grass utilization needs to be heavier. The heavier utilization results in healthier grass. If the grass is not grazed it clumps up, but when grazed it becomes more of a sod grass which is much more preferable for soil protection and grazing.
- ❖ The GIS range capability analysis based on TES does not reflect actual (P-U) capability. Use range capability as a model, not as actual capability.
- ❖ Range conditions on the Coyote District are actually better than the anecdotal evidence.
- ❖ Permittee cooperation good overall, especially from those who make a living from it.
- ❖ Range conditions not as good as should be on the Española Ranger District.

Prescribed Fire

- ❖ Spring burns cause less soil erosion than fall burns.
- ❖ Lop-and-scatter is better for soils than hand piling slash.
- ❖ In Wildland Urban Interface areas hand pile and burn slash treatments can be controlled better than broadcast burning.

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

- ❖ At higher elevations snow will compress thinning slash, reducing the need to lop and scatter.
- ❖ Spring burns appear to result in more invasive (noxious) weeds than fall burns; research is needed to validate.
- ❖ Prescribed burns are getting the expected vegetation response and are meeting resource objectives.

Wildfire

- ❖ Post Viveash Fire monitoring showed heritage sites were damaged by subsequent erosion as well as fire.
- ❖ Wildfires have exposed sites on the forest previously undiscovered.

Road Closures

- ❖ Public doesn't respect motorized-use road closures as they are currently done. Buck and pole fences appear to be more respected, than wire fences or gates.
- ❖ Road closures are difficult to enforce, one aspect is possibly the lack of law enforcement. There is too much work and not enough Law Enforcement Officers.
- ❖ When there was more public involvement signing which explained reasons for a closure it resulted in a higher level of compliance.

1b. What monitoring/inventory methods/techniques have you changed or improved as a result of monitoring?

- ❖ We have recently completed allotment management plans that are designed to reduce soil, water and riparian impacts from cattle grazing. We are still using the Rowe Mesa Grassbank Allotment to allow other cattle allotments to improve.
- ❖ Districts would like range permittees to be more responsible for their own allotment monitoring. This would be a more pro-active approach than what is being done currently.
- ❖ Districts have changed their AOPs (Annual Operating Plans) and are continuously changing them based on monitoring during the field season by both permittees and district employees. This change has kept allotments in better condition. Based on range-readiness inspections last year, some permittees rested their allotments and did not turn out.
- ❖ Districts are changing grazing utilization levels based on monitoring. They are adjusting the stubble height to a higher level because they feel that current levels are not enough.
- ❖ Districts have revised the Prescribed Burn Plan.

Overall, Resource Area personnel felt that there are still some barriers preventing them from doing more effective monitoring. Some of the areas that are causing concern and frustration are:

- 1) They are spending too much time in the office doing Meaningful Measures (MM), INFRA and budget.

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

- 2) Inventory and monitoring is not a priority with funding or direction.
- 3) Protocols for Meaning Measures and INFRA are poorly designed, and need to be improved.
- 4) Realistic monitoring plans are not being developed in the analysis process. Monitoring needs to be more project specific and feasible.
- 5) There is no time, not enough people or equipment to get the monitoring done, especially the lack of vehicles.
- 6) Monitoring plans are not practical. They are a pie in the sky wish list.
- 7) Cerro Grande and Viveash Fires took priority this last summer, which resulted in a lot of RA projects and some monitoring not getting done.
- 8) Lack of appropriate technical resources, e.g. data recorders, GPS units, etc., and delays due to waiting for technical approvals for software, printers, etc.
- 9) Timing of activities (NEPA) is not occurring on time or at all.

2. What internal/external changes occurred last year that affected the forest?

- ❖ Wildland urban interface planning and the National Fire Plan.
- ❖ Viveash and Cerro Grande fires occurred locally and large fires occurred nationally.
- ❖ Permittees concerned over allotments either put less cows out or took some off early in order not to degrade the allotments, or over utilize the sites. They did this on their own initiative.
- ❖ Drought both locally and nationally.
- ❖ Management of the Valles Caldera.
- ❖ The Presidents roadless initiative.
- ❖ A grants and agreements coordinator has helped get more done with the public sector.
- ❖ Districts have combined to become resource areas. Being a resource area in two separate physical locations creates more time in the office on the phone and in meetings, and less time the field where the work is.
- ❖ Lack of decision-from the top down is affecting employee morale.

3. What progress have you made toward achieving desired conditions?

We are continuing to make significant progress moving toward desired conditions in the key national resource emphasis areas: Forest Health, Watershed/Riparian, Recreation and Partnerships. For example, we are:

- ❖ Continuing to reduce fuel loads and create fuel breaks to protect wildland urban-interface areas and watershed values. This is especially critical after two large wildfires last summer on this forest.
- ❖ Continuing to obliterate or improve roads to reduce water quality and soil erosion problems;
- ❖ Continuing to update and revise allotment management plans that are designed to reduce soil, water and riparian impacts from cattle grazing;
- ❖ Upgrading recreation sites to improve riparian conditions, aesthetics, safety and accessibility; and

FY2000 FOREST PLAN MONITORING & EVALUATION REPORT
Santa Fe National Forest

- ❖ Continuing to build collaborative partnerships with numerous groups outside the FS.

4. What public involvement in monitoring/evaluation worked or didn't work?

Public Involvement that worked well;

- ❖ Gallinas watershed multi-agency partnership group, keeping informed of activities, and what is going on within each agency inside the watershed
- ❖ Monitoring and evaluation on Valle Grande Grass Bank. Group developed their own monitoring protocol; protocol was completed by NMSU cooperative extension.
- ❖ Site steward monitoring for Heritage resources worked well, PIT volunteers worked well.
- ❖ Information being put on the internet so the public could access is working
- ❖ Recreation volunteers work well with public.
- ❖ Cerro Grande Fire volunteers were excellent and provided a lot of help both internally and externally.
- ❖ Very good Partnership involvement in Santa Fe Watershed project.
- ❖ For future public involvement we need to create partnerships with schools, universities, and a lot of schools have money to do field work and are just looking for a place to spend it.
- ❖ The public reacts much better when you explain the reasons behind a road closure especially if the reasons are sound.
- ❖ Cerro Grande fire involvement with groups to inventory and monitor pre and post fire data continues to work really well.

Public involvement that didn't work well;

- ❖ Access to information on an Internet site limits access to those who can afford computers and discriminates against those who can't afford access. Some Districts feel that this discriminates against our local publics.
- ❖ Road closure signing is not being done effectively.

NEED FOR CHANGE: PRELIMINARY RECOMMENDATIONS FOR UPDATING THE FOREST PLAN

Last year we sent in a detailed report on the need to update virtually every management area program in the Forest Plan. All of the recommendations in the FY99 report are still valid, and it is even more evident now that we need new direction that reflects current issues, goals and objectives.

Preliminary recommendations for amending/revising (updating) the Forest Plan should be reviewed and refined through public involvement activities and during the forest-wide inventory/assessment process. The edited recommendations should then be reviewed and prioritized by the forest leadership team.

Preliminary recommendations include changes to:

- Management Areas:
- Transportation and travel management
- Timber Management
- Wildlife management
- Recreation/Scenery Management
- Heritage Resources
- Fire/Fuels
- Air quality
- Range management
- Watershed
- Monitoring Plan- Forest Plan Chapter V
- Forest Plan Glossary