Monitoring and Evaluation Report
FY 2004

Rio Grande National Forest, Colorado

United States Forest Service
Rocky Mountain Region
Region Two

2004

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Cover photograph by John Rawinski – Monitoring landslides. The West Fork of Rio Chama experienced a natural landslide in spring 2004.

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CERTIFICATION

The Rio Grande National Forest's Land and Resource Management Plan (Forest Plan) was approved on November 7, 1996. It was meant to be a dynamic evolving document subject to change. Monitoring of the Plan is essential in evaluating the Plan's effectiveness and making the necessary adaptive management changes. Since The Forest Plan was approved in 1996, it has been amended five times to date.

Overall, the 2004 Monitoring and Evaluation results indicate that the management of the Forest is meeting goals, desired conditions, Standards and Guidelines, and prescriptive allocations (per 36 CFR 219.12 (k)). Previous recommendations for amendments are incorporated here by reference. Recommendations for future amendments are as follows:

- Unroaded area mapping errors were identified in the Forest Roads Analysis Report (2004) and need to be analyzed and scoped with our publics before correcting the Forest Plan map (Alternative G) and Forest travel maps.

- As a result of PL 106-530, Great Sand Dunes National Park and Preserve Act, there is a need to correct the Forest Plan (Alternative G) map and Forest travel maps to reflect the Park Preserve within the Sangre de Cristo Wilderness. The related Baca Land Exchange has been completed and will require an amendment to the Forest Plan to cover the new land received by the Forest.

- The Forest Plan would be amended through the proposed Regional Southern Rockies Canada Lynx Amendment which is ongoing. This proposed amendment would incorporate lynx conservation measures through standard and guidelines into the Forest Plan.

- The Forest continues to suffer from drought and insect infestations. The Forest continues to assess forest health conditions and may propose plan amendments to allow for vegetative treatments where necessary.

- The Forest needs to amend the recreation Standard specifying camping stay duration limits to make the Standard consistent with other Forests in the Region.

I have reviewed the annual Monitoring and Evaluation Report for the Rio Grande National Forest for fiscal year 2004. I believe that the monitoring and evaluation requirements of the Forest Plan have been met and that the decisions in the Forest Plan are still valid. I have noted and considered the recommendations for the Rio Grande National Forest and will implement those that I decide are appropriate, after further analysis and required public notification and involvement.

/s/Peter L. Clark *August 26, 2005*

PETER L. CLARK
Forest Supervisor

Date

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Monitoring & Evaluation Report
Rio Grande National Forest
Fiscal Year 2004

Introduction and Status

The organization of this report is as follows. First, there is a brief discussion of the status of the Land and Resource Management Plan (Forest Plan) appeals, then a discussion covering amendments and potential amendments. Next is a discussion covering the basis for monitoring on the Rio Grande National Forest. These include a resource-by-resource discussion of monitoring requirements. Finally, a "State of the Resource FY 2004" section describing the results of monitoring by each resource area. An appendix provides a tabular summary of this past year's monitoring results.

Appeals

Appeal #97-13-00-0057
Regional Forester Elizabeth Estill signed the ROD approving the Revised Plan on November 7, 1996. On January 19, 2001, the Chief made a decision on Appeal #97-13-00-0057 (Colorado Environmental Coalition *et al.*) of the Record of Decision for the Rio Grande National Forest Revised Land and Resource Management Plan. On March 27, 2001, the Secretary's Office issued a Discretionary Review Decision of the Chief's Appeal Decision. The Secretary's decision affirmed in part and reversed in part the Chief's January 19, 2001 appeal decision. The following instructions were provided to the Forest:

- Select appropriate MIS per 36 CFR 219.19 and display the environmental effects of forest plan alternatives on such species.
- Expand the display of environmental effects of forest plan alternatives on Riparian Group and Nonforested Group species to be commensurate with the display in the FEIS of effects on other Groups.
- Display habitat effects for a longer time period, to be determined by the Forest based on consideration of rotation age and rate of change in plant communities due to succession or management activities. As part of the coarse-filter and fine-filter analyses contained in the FEIS, habitat/vegetation types should be forecast into the future to ensure the persistence of these ecosystems. In addition, the disclosure of effects should include a better display of where management activities are permitted by habitat/vegetation type and management prescription.
- Add direction to the monitoring plan if MIS are selected that the Revised Forest Plan does not already require to be monitored.
- Issue an errata sheet regarding compliance with Section 505 of FLPMA.
- Develop a new livestock grazing suitability determination as required by the Chief's decision, including a map of rangelands that shows where grazing permits have been issued.
- Add to the record the scientific literature cites used to determine habitat needs, distribution, and trends of sensitive species and MIS.

Work on the above items has been completed and posted on the Rio Grande National Forest Website at: http://www.fs.fed.us/r2/riogrande/planning/planning.htm

Forest Plan Amendments

There have been five amendments to the Forest Plan to date. A brief description of each amendment is provided below.

Amendment # 1

Twister Blowdown Management-area Prescription 3.3 is a temporary exception applied to Management-area Prescription 3.3. On 3/2/98 a Decision Notice was signed that amended the Forest Plan to allow for timber salvage harvesting on approximately 60 acres within Management-area Prescription 3.3 (Backcountry) in the Twister Blowdown area. The amendment lifted the no harvest Forest Plan Standard by exception, so that salvage of blowdown could occur on this site to reduce the risk of beetle infestation. This is a non-significant amendment. The timber harvest has been completed and consistent with the decision, the area will again be managed as backcountry. Spruce beetle monitoring and control activities are continuing in the backcountry area.

Amendment # 2

Wilderness Management Direction. The scope of Forest Plan direction for Wilderness was limited in the revised Forest Plan of 1996 due to ongoing wilderness planning efforts. It was recognized that growth in the population of Colorado has affected the amount and type of recreation use within the South San Juan and the Weminuche Wilderness Areas -- the most visited Wilderness area in the state. A review of Forest Plan direction pertaining to the management of recreation use, changes in recreational use patterns, and preservation of the wilderness character of these areas, was done in order to address these affects. Limits of Acceptable Change (LAC), a planning tool that enables wilderness managers to define acceptable wilderness conditions and then develop standards, guidelines, indicators, and management actions to meet acceptable conditions became available and was used to help formulate a Forest Plan amendment pertaining to Wilderness Management direction.

On 8/3/98 a Decision Notice was signed to implement wilderness management goals for the Forest Plan, to change Management-area Prescription definitions and locations, to add Wilderness Management-area Prescription and Forest-wide standards and guidelines, to define thresholds and possible management actions within Wilderness when thresholds are exceeded, to add wilderness monitoring requirements, and to add wilderness management to the Forest Plan. This amendment also clarified the stocking of indigenous fish in Wilderness. The Forest Plan amendment and implementation of the Wilderness management direction and action items began on October 1, 1998.

Amendment # 3

Adjustment of a Botanical Special Interest Area Boundary. On June 18, 1999, a Decision Notice was signed approving the adjustment of a Special Interest Area boundary. The Special Interest Area was originally designed to protect a Sensitive plant (Ripley milkvetch), but the adjustment was made to better reflect the actual habitat of the plant. Ripley milkvetch generally grows in relatively open ponderosa pine /Arizona fescue communities (Douglas-fir may also be present and is somewhat co-dominant with ponderosa pine) where canopy coverage by all trees is less than 25% and where the elevation is about 9,200 feet or lower. Due to the electronic format used when revising the Forest Plan, abundant higher elevation habitat, not specifically conducive to Ripley milkvetch, was included within the Special Interest Area boundary. The analysis to support the amendment, done as a part of the November Analysis Area Environmental Assessment, resulted in reducing the acreage of the botanical Special Interest Area from 2,076 acres to 910 acres. The reduced acreage (1,166 acres) was included in a Bighorn Sheep Management-area Prescription (5.42). The location of the botanical Special Interest Area is to the west of Fox Creek, in the Hicks Canyon area, on the Conejos Peak Ranger District. This is a non-significant amendment.

Amendment # 4

Timber Suitability Amendment. On March 2, 2000, a Decision Notice was signed to amend the Forest Plan in regard to the suitable timber lands on the Rio Grande National Forest. The Amendment corrects omissions made between the publication of the Draft and Final Environmental Impact

Statements for the Revised Forest Plan. Net adjustments of acres to the suitable timber land base result in an 8.3 percent increase in suitable lands, which was determined to not be a significant change. The amendment became effective upon completion of the consultation process with US Fish and Wildlife Service regarding the adequacy of the Forest Plan biological assessment and evaluation. This is a non-significant amendment.

Amendment # 5

Management Indicator Species (MIS) Amendment. Peter Clark signed a Decision Notice to amend the Forest Plan on 10/24/03 which identifies nine Management Indicator Species (MIS), and adds or modifies the associated standards and guidelines and Monitoring and Evaluation Strategy to the Forest Plan. This is a non-significant amendment.

Status of Previous Recommendations

There were several recommendations for changing the wording of some of the silvicultural guidelines and for changing monitoring requirements for fish and birds in the Forest Plan. Some of these were addressed in the MIS Amendment discussed above. There have been recommendations for correcting mapping errors in the boundary of the Fox Mountain Unroaded Area and for updating the Desired Conditions statement for the ski area. A recommendation has been made to incorporate the terminology and definitions in the 1996 Federal Wildland Fire Management Policy Action Plan and the 1998 Wildland and Prescribed Fire Implementation Procedures Guide into the Forest Plan.

Potential Forest Plan Amendments, administrative corrections, or actions

Unroaded area mapping errors were identified in the Forest Roads Analysis Report (2004) and need to be analyzed and scoped with our publics before correcting the Forest Plan map (Alternative G) and Forest travel maps. The current Handkerchief-Mesa environmental assessment analysis identified a mapping error in the Fox Mountain unroaded area. This mapping error will be addressed in an administrative correction.

As a result of PL 106-530, Great Sand Dunes National Park and Preserve Act, there is a need to correct the Forest Plan (Alternative G) map and Forest travel maps to reflect the Park Preserve within the Sangre de Cristo Wilderness. The related Baca Land Exchange is ongoing and will require an amendment to the Forest Plan once the Forest obtains the new property. The related Baca Land Exchange has been completed and will require an amendment to the Forest Plan to cover the new land received by the Forest.

The Forest Plan will be amended through the Regional Southern Rockies Canada Lynx Amendment that is ongoing. This proposed amendment will incorporate lynx conservation measures through standard and guidelines into the Forest Plan.

The Forest continues to suffer from drought and insect infestations. The Forest continues to assess forest health and may propose plan amendments to allow for vegetative treatments where necessary.

The Forest needs to amend the Forest Plan recreation standard which dictates recreational stay duration limits to make the Standard consistent with other Forests in the Region.

The Village at Wolf Creek access analysis identified the need to change the Scenic Integrity Objective at the Wolf Creek Ski Area to make it compatible with the existing visual situation.

Monitoring on the Rio Grande National Forest

On November 11, 1996, the Revised Land and Resource Management Plan (Forest Plan) for the Rio Grande National Forest (RGNF or Forest) was approved by Regional Forester Elizabeth Estill. The Forest Plan establishes the management direction for all future activities, to ensure that an interdisciplinary approach is used to achieve the Desired Conditions described for all areas of the Forest. This Monitoring and Evaluation Report is based on the RGNF Monitoring Plan, as described in Chapter 5 of the Forest Plan for the Rio Grande National Forest. This report is not a list of outputs; rather, it describes conditions of the various resources on the Rio Grande National Forest. The report is key to the concept of adaptive management (the ability to change as new information or technology is developed) and is the feedback mechanism for improved resource management. The information presented in this report will be used to determine if an amendment or revision of the Forest Plan is needed.

Monitoring and Evaluation criteria are based on national policies, Regional monitoring emphasis items, interdisciplinary-team concepts, and legal and other policy requirements. The Monitoring and Evaluation program asks the fundamental questions, "How are things working?" and "What needs to be changed?" The purpose of the monitoring program is to establish a basis for periodic determination and evaluation of the effects of management practices (36 CFR 219.11(d)). The criteria include the following:

- Goals, Objectives, and Desired Conditions identified in the Forest Plan.
- Forest Management Direction.
- Land suitability.
- Management-area Prescriptions, as well as the Forestwide and Management-area-specific Standards and Guidelines.
- The Monitoring Plan.
- Congressional recommendations.

Annual monitoring goals are described in the Annual Monitoring Operation Plan (AMOP) detailing monitoring expected to be completed in the upcoming year. The AMOP is developed by RGNF resource specialists, who are responsible for monitoring, and is reviewed and approved by the Forest Supervisor. The AMOP describes in detail reasons, methods, locations, responsible persons, and estimated costs.

Three types of monitoring are described for Forest management:

- **Implementation Monitoring.** This includes periodic monitoring of project activities to determine if they have been designed and carried out in compliance with Forest Plan direction and management requirements.
- **Effectiveness Monitoring.** This level of monitoring is used to determine if management activities are effective in achieving the Desired Future Condition described for each of the various management areas.
- **Validation Monitoring.** This level of monitoring is used to determine whether the initial data, assumptions, and coefficients used in the development of the Forest Plan are correct, or if there is a better way to meet Goals and Objectives and Desired Future Conditions.

Because the Forest Plan has been implemented for only a relatively short time period, this FY 2003 report focuses primarily on implementation and effectiveness monitoring. As trends develop and conclusions are validated, the third level of monitoring will be addressed.

Monitoring Requirements

This section briefly synopsizes the minimum level of monitoring identified for each resource component of the Monitoring Plan. A more detailed description is included in the Forest Plan (Chapter V, pp. V-4 through V-16). Forest Monitoring efforts are focused on meeting these requirements, however, the amount of monitoring actually done for each element is a function of available funding.

Air Quality

Maintaining air quality at a level that is adequate for protection and use of National Forest System resources is required by 36 CFR 219.27 (a)(12). To accomplish air-quality monitoring, a number of techniques will be employed. For instance, visibility data are available from the National Park Service, which monitors visibility at the Great Sand Dunes National Monument. Synoptic surveys in all four Wilderness Areas on the RGNF have identified the lakes most sensitive to changes in acidity, and they have been selected for long-term trend monitoring. Regional protocols, and the Forest Air-Quality-Monitoring Plan, stipulate that these lakes should be monitored three times per summer to be most effective.

Aquatic Resources

Watershed health is a primary focus of the Forest Service. Accordingly, particular emphasis will be placed on this monitoring element. Water-resource monitoring will include evaluation of how well streams have been protected (including stream banks, shorelines, and wetlands), and how well erosion and flood hazards have been minimized. Watershed-disturbance monitoring is expected to identify disturbances from past, present, and proposed activities; relate severity of disturbances to an equivalent roaded area; compare total disturbance to a concern level, to measure relative risk; and vary the Concern Level, based on existing information and experienced field people

Monitoring and evaluation of stream health, water quality, and riparian conditions will be included in watershed assessments. Watershed assessments are to be completed on at least one stream and riparian area per Analysis Area for each Environmental Analysis (EA) project involving land disturbance. Monitoring of streams within watersheds that have been identified as “at risk'” will occur, and be reported in, watershed assessment sections of appropriate EAs. Monitoring of six streams identified as damaged in the Monitoring Plan, to evaluate improvement over time, will be reported based on long-term assessments (two streams will be evaluated each year).

Biodiversity

The National Forest Management Act (NFMA) requires the RGNF Forest Plan to provide for the diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives (16 U.S.C. 1604(g)(3)(B). NFMA is implemented through the regulations at 36 CFR 219.19 and 36 CFR 219.27(a)(6) which require management of habitat in order to maintain species viability in the *planning area* -- which is the RGNF. Thus, the Forest has a duty to harmonize multiple-use objectives with providing a reasonable certainty for species viability.

To determine if the Forest Plan is meeting this objective, the Forest will use several monitoring tools. Forest specialists will monitor those species and/or habitats about which there are some questions as to their potential viability. Species monitored are found on the Threatened and Endangered list, the Regional Sensitive Species list, and for plants, the Colorado Natural Heritage Program's list of Species of Special Concern and Significant Plant Communities. Management Indicator Species (MIS) will also be monitored beginning in 2004.

Monitoring will occur at two different scales. The “fine-filter” scale will focus on particular plant and wildlife species that generally occupy distinct habitats which cannot be accurately monitored at the landscape level. Management Indicator Species were specifically selected as one tool to help evaluate diversity and species viability Forest-wide. The rest of the fine-filter work is specific to the known

location(s) of the particular plant or animal. The intent of the fine-filter work is to track the species' population trends over time. The "coarse-filter" work focuses on tracking the changes in gross habitat conditions (e.g., cover type and structural changes).

To ensure that the Forest is meeting this objective, four attributes have been selected for monitoring vegetation because they capture the key components of vegetation diversity. Two of them involve tracking changes in the amount, quantity, and pattern of the vegetation that may appear over the life of the Plan. The third is a validation of the reference-work and landscape-scale tools. The final attribute is a progress report on the gathering of data for the Forest's old-growth inventory/reconnaissance.

Management Indicator Species will also be used to monitor the Forest's objective for providing for and maintaining diversity and to assess species viability. Project-level MIS analyses will address species viability within a context of the entire Forest. MIS analysis at the project level focuses on habitat and its availability and occupancy so as to support a minimum number of reproductive individuals which are well distributed so individuals can interact in the planning area while addressing the relationship between the Forest level MIS population trends and habitat changes. MIS analysis at the Forest level focuses on population trend data for the selected MIS, which is the appropriate level for biological populations, and the cumulative effects to habitat across the Forest. A multitude of information can be used for MIS monitoring which makes possible the evaluation of diversity in terms of its prior and present condition (36 CFR 219.26).

Fire and Fuel Management

"Serious or long-lasting hazard" potential will be reported based on a determination of "relative resource values." Hazard potential from wildfire will be determined through ocular estimates, fuel transects, on-site inspections, and/or surveys. In addition, the Fire program is routinely monitored through the National Fire Management Analysis System. This economic-analysis program addresses the ''relative resource value" determination through a relatively complex cost/benefit evaluation of the Forest's fire suppression program.

General Infrastructure

Monitoring will be reported based on the results of routine inspections of all facilities, including dams, facilities, drinking water, road bridges, trail bridges, and Forest Development Roads.

Health and Safety

This monitoring objective is focused on meeting the intent of the National Health and Safety Codes and Occupational Safety and Health Administration guidelines.

Heritage (Cultural) Resources

Monitoring will be reported based on the evaluation of protection measures for resources discovered during project proposal evaluations. Monitoring of selected highly significant heritage resources not associated with specific project proposals will also be reported. Consultation efforts, with those recognized American Indian tribes and Nations having a demonstrated concern for the area of the RGNF, concerning areas of cultural importance will be monitored and reported.

Minerals

Monitoring will be reported based on a verification process to determine if the conditions in the Forest Plan are still valid, and whether oil and gas operations could be allowed somewhere on a proposed lease tract. Monitoring of oil and gas will occur if such activities are developed. To date, no oil and gas development has occurred on the Forest. This is well below the potential level analyzed in the Forest Plan. There are lease applications on the Forest that are on hold until the Lynx conservation strategy is completed. Monitoring of locatable minerals will be reported based on the inspection and enforcement of operation plans to assure compliance with the Forest Plan.

To date, no Forest Plan amendments are needed for minerals.

Noxious Weeds

Monitoring of noxious weeds (where and to what extent they are present) will be reported based on the evaluation of control methods on infested areas on the forest

Range

Monitoring of Suitable rangelands for condition and trend will be reported based on the information obtained from the Rocky Mountain Region's *Rangeland Analysis and Management Training Guide* (RAMTG) inventory process. The information is expected to yield baseline data to determine Desired Conditions of rangelands.

Monitoring of range suitability will be reported based on determinations made during the development of Environmental Assessments (EAs) and Allotment Management Plans (AMPs) for each allotment.

Range utilization will be reported based on the results of routine field analysis.

Recreation

Developed Recreation

Developed recreation site monitoring will be based on facility condition surveys. Visitor use and expectations will be monitored and reported based on customer surveys. Ski area monitoring will be done through approved summer and winter operating plans. Special uses will be monitored through permit compliance and evaluations.

Dispersed Recreation

The Forest will monitor effects of its travel management plan during routine summer inspections and fall big game hunter patrols. The Forest will monitor trail conditions and trail needs based on trail inventories and logs.

Unroaded Areas

Monitoring will be reported based on a representative assessment of backcountry areas. This will include the assessment of motorized and nonmotorized recreation trail use, levels and type of use, areas of conflicts, identification of areas of concentrated use, and other resource impacts (biological and physical).

Wild and Scenic Rivers

Monitoring will be reported based on the assessment of resource-management activities that occur within the river corridor.

Wilderness

Monitoring will be reported based on the evaluation of wilderness management thresholds (specific indicators) and appropriate management actions to determine if wilderness standards and guidelines are being met.

Research and Information Needs

Monitoring will be reported based on the results of all resource-monitoring activities.

Research Natural Areas (RNAs)

Monitoring will be reported based on on-site inspections of established Research Natural Areas every five years.

Road Construction, Closures, and Decommissioning
Monitoring of road construction, closures, and decommissioning will be reported based on routine field reports.

Scenic Resources
Monitoring of scenic resources will be reported based on a determination of disturbance, using photographs, on-site inspections, and aerial photographs.

Soil Productivity
The protection of soil productivity is monitored based on the requirements of 36 CFR 219.12(k)(2). The Forest uses several tools for soil monitoring, including the collection and analysis of core soil samples, erosion modeling, ocular estimates, transects, soil health assessments, investigations, and professional judgment. Soil health assessments will be made to determine whether long-term soil productivity was maintained or improved. Management actions and effects are evaluated using existing Forest Plan Standards and Guidelines. These techniques will be employed on ground-disturbing projects where high soil-erosion, mass-movement hazards or other soils concerns exist.

Special Interest Areas
Monitoring will be reported based on on-site inspections of designated Special Interest Areas every five years.

Timber
Restocking of final-harvest areas is required by 36 CFR 219.12(k). Monitoring will consist of surveys conducted in the first, third, and fifth year after final harvest. First-year surveys are on-site inspections, while third- and fifth-year surveys are statistically valid plot-inventory exams.

36 CFR 219.12(k) requires that all Forest lands be examined at least once every ten years, to determine if Unsuitable lands have become Suitable, or vice versa. Monitoring will also confirm that lands identified as Suitable do, in fact, meet suitability criteria.

36 CFR 219.12(k)(5)(iv) requires the Forest to monitor levels of destructive insects and disease organisms following management activities. The monitoring of created openings is tied to various legal requirements, including 36 CFR 219.12(k)(5)(iii), and 36 CFR 219.27(d)(2).

State of the Resource FY 2004

Summary statements pertaining to the results of monitoring efforts done in Fiscal Year 2004 (FY04), for each specific resource are presented below. The statements are based on the information presented in Appendix A, "Monitoring & Evaluation Table, Rio Grande National Forest, Fiscal Year 2004."

State of the Resource: Air Quality
Air quality for the Forest is excellent. It remains an outstanding feature that people come to enjoy. Long visual distances enhance beautiful scenery. Some impacts occur from burning, but are quickly dissipated by stable atmospheric conditions. Regional haze diminishes visibility; however, visual distances remain among the best in the country.

The most sensitive high-elevation lakes have been monitored in the past, but funding and emphasis for lake monitoring in 2002 was preempted by priorities given to fire fighting and reclamation of the Million Burn. Monitoring resumed in 2003 and 2004 with samples collected from eight established long-term sampling sites. Lake, visibility and particulate data are useful in modeling to predict impacts from proposed facilities that could impact air quality. This data is also used to prescribe

pollution control technology for new major polluting facilities. No additional information is available from lichen monitoring.

State of the Resource: Aquatic Resources

From past monitoring, we know that watershed disturbances can increase in timber harvest areas. High levels of watershed disturbance seem to affect stream health in some areas on the Forest, but not in others. This seems to be mostly related to amount of precipitation. Areas of low precipitation, like the Saguache Ranger District, can tolerate more watershed disturbance before stream health begins to be impacted. The location of disturbances and how they are mitigated seem to be the more important criteria for protection of stream health.

Drought conditions for the Rio Grande National Forest improved in 2004. Near normal moisture was received in much of the San Luis Valley. "Adequate" to "Robust" stream health is the norm, although the health of some streams was diminished during the drought. Range specialists continue to make adjustments in grazing systems to deal with impacts and avoid excessive concentration of animals in sensitive riparian areas that were impacted during the drought but are now recovering. Stream health is determined by comparing channel conditions to a similar reference stream that shows what a stream can look like. Sometimes this comparison is made visually and sometimes with more, in-depth measurements.

The Wolf Creek Ski Area continues to exceed Forest Plan sediment control requirements. They have successfully stabilized steep slopes, installed water collection systems that divert flow into sediment collection basins. They are paving parking lots to prevent sediment delivery as part of snow removal.

Construction work on Highway 160 continues, but sediment retention measures are a routine part of that operation.

Streams within the Million Burn continue to be in different states of adjustment. The watershed is healing nicely, but stream channels are naturally down-cutting in places while aggrading in others.

Several fuel reduction projects occurred in 2004. Stability and general condition of streams within these project areas were evaluated prior to the projects. Where necessary, channels were identified for buffering from the burns. Additional monitoring will occur subsequent to the burns to evaluate effects. The Forest also assessed stream condition for timber sale projects and range allotment renewals. Minor problems were noted in some cases and changes in management are expected to produce improvement in those areas. We also returned to some reference streams and to some long-term monitoring streams to document changes.

The Forest continued work on abandoned mine land reclamation projects that involve improving water quality and health of streams, riparian areas and watersheds. These projects are within the Willow Creek watershed.

State of the Resource: Biodiversity

Ecology Program

The Ecology Program was responsible for the plant-related items in the Biodiversity section of the Monitoring Plan. The plant items were as follows: 1) Fine-filter Assessment of plant species (*Astragalus ripleyi*; and other special status plants), and 2) Coarse-filter Assessment of habitat (Landtype Association status; special status plant communities; and old growth). Finally, the Ecology program was responsible for making a determination of whether the biodiversity-related goals, desired conditions, Standards and Guidelines, and prescription allocations (per 36 CFR 219.12 (k)) were being met or were still appropriate.

A brief assessment of each of these topics follows. More detail is provided in Appendix A. Overall, the Forest appears to be generally meeting the goals, desired conditions, and Standards and Guidelines for the Ecology resource as intended in the revised Forest Plan. Based on monitoring this past year, there is nothing to indicate that a change in Management-area Prescription allocation is needed relative to the Ecology resource.

The field research work is complete for *Astragalus ripleyi*. Results indicate that the population demographics for this species are primarily influenced by moisture availability. Furthermore, research shows that livestock grazing does not reduce *Astragalus ripleyi* population viability, at least in the short term. The recommendation is to avoid season-long grazing and to incorporate rotation-grazing schemes so that this species is not grazed at the same time of year every year.

A site visit with Dr. Ron Hartman (curator of the Rocky Mountain Herbarium) was made to Sheep Mountain (near Stoney Pass) to search for *Gilia sedifolia* – a rare Forest Service designated sensitive plant not seen after its discovery in 1892 until re-discovery in 1995 near Half Peak. Dr. Carl Allen Purpus originally described the type locality from "Sheep Mountain." Unfortunately, there are numerous Sheep Mountains in southwestern Colorado. The plant was not found and the habitat appeared to be unsuitable. A site visit was also made to the *Salix arizonica* site (a Forest Service designated sensitive plant) and the site appeared stable and secure. No new special status plants were found this year.

The IRI Center in Dolores has completed the contract mapping and attributing of Common Vegetation Unit (CVU) polygons on the Forest. The updated vegetation data will be used in future analysis work.

Several CNHP plant communities of special interest were visited in 2004 as follows: 1) *Salix wolfii* / mesic forb shrubland, 2) *Salix monticola* / mesic forb shrubland, and 3) *Carex utriculata* / herbacsous vegetation. Sites appeared stable and there were no apparent threats.

Old-growth inventories were completed for the following projects: Finger Mesa, Neff Mountain, Shaw Lake Beetle Salvage, and County Line Vegetation Mgmt. Project. To date, old growth (Mehl 1992) remains uncommon. On the Divide and Conejos Peak Ranger Districts, old growth appears to be limited due to a lack of patchiness, lack of structural diversity, and/or net productivity being too high. Because the Mehl criteria are biased toward more productive sites, the Saguache RD appears to generally lack the productive capability to meet the Mehl old-growth descriptions.

The Ecologist visited more than 20% of the Forest's on-going projects (site visits made due to writing project-level plant BEs). Monitoring did not reveal that biodiversity items in 36 CFR 219.12 (k) were in need of change.

Wildlife Program

Wildlife habitat on the Forest is a mixture of ecological types offering habitat for a wide diversity of wildlife species. Overall, key components identified for monitoring, such as vegetation amount, quantity, and pattern are adequate, and appear to provide for and maintain the diversity of animal communities required by the Forest Plan.

Epidemic beetle outbreaks and drought continue to affect forest health conditions, especially in spruce-fir habitats. Drought and fire risk in the wildland/urban interface continues to be of concern in mixed conifer, ponderosa pine, pinyon/juniper and grassland habitats. Rehabilitation and conservative management of these habitats will be required to recover desirable habitat conditions and restore appropriate fire regimes in the affected areas. Species inventories are conducted in sites proposed for vegetation management prior to treatment to document presence and distribution of TES/MIS species. The area burned in the 2002 Million Fire was monitored during the 2004 field season, documenting continued use of both the burned and unburned areas of aspen/mixed conifer habitats by a diversity of avian species, including MIS.

Population monitoring for TES species is primarily related to project inventories. Compilation of data into comprehensive spreadsheets is ongoing and data migration into FAUNA is scheduled for 2005. Lynx habitat baseline data are continually updated based on proposed projects and management activities, and reported to the U. S. Fish and Wildlife Service (FWS) in an annual report. Southwestern willow flycatcher surveys are conducted Forest wide as well as in conjunction with project inventories to determine presence and distribution of suitable habitat on the Forest and whether suitable sites are occupied. Results are reported annually to FWS and to date, no flycatchers have been documented nesting on the Forest. Although no birds have been found on the Forest, the Forest will continue to coordinate with FWS in 2005 to refine the definition of and map potential habitat for Southwestern willow flycatcher, as a basis for continuing surveys. The Forest is cooperating with multiple entities in the development of a Habitat Conservation Plan for the Southwestern willow flycatcher. The Forest continues to cooperate with adjacent Forests and the FWS in conducting population and habitat monitoring for Uncompaghre fritillary butterfly; to date there are 5 identified populations on the Forest and habitat surveys are ongoing.

The current status of the Forest's TES species can be found in the 2003 updated Forest Plan Biological Assessment (BA) prepared as part of the Forest Plan MIS Amendment. The Forest Plan Biological Evaluation (BE) is being updated to include an evaluation of those new sensitive species from the revised Regional Forester's Sensitive Species List that are found on the Forest.

MIS monitoring, new to the Forest Plan through the 2003 MIS Amendment, was initiated Forest-wide in 2004, consistent with existing methodologies. Final reports on monitoring protocols will be completed in 2005. For avian MIS, the Forest will use data from Forest transects and from the statewide Monitoring Colorado Birds Program (MCB) to monitor Forest MIS population trends. The MCB statewide survey is conducted annually by the Rocky Mountain Bird Observatory (RMBO) and includes survey information on Forest TES and MIS avian species. In 2004, existing MCB transects on the Forest were supplemented with additional transects on the Forest, specifically to augment the MCB data on the Forest's avian MIS. Data from the new Forest transects were collected by Forest personnel trained in MCB data collection methodology. An analysis of both MCB and Forest data will be completed in 2005. MIS monitoring data for mammalian and fish species are obtained from the Colorado Division of Wildlife (CDOW), with fisheries data collected and reported jointly by CDOW and Forest personnel. The Forest also receives monitoring reports from the CDOW on Canada lynx, peregrine falcons, boreal toads, bats, bald eagles and game species.

Fisheries Program

The Desired Condition for Biodiversity is to maintain viable populations of native and desired nonnative species. Following is a summary of the state of the fisheries resource on the RGNF.

It was an above average fishing year on the Forest with good stream flows and average reservoir levels. Fish management activities include: sportfish and native fish inventories; chemical reclamation of Lake Fork Conejos River and Big Lake; Rio Grande cutthroat trout genetic analysis; whirling disease monitoring; fish migration barrier reconstruction; and sportfish/native fish stockings.

Sport fishing is a major activity on the RGNF. The Forest offers a variety of fishing opportunities ranging from high mountain lakes and streams to rivers and reservoirs. Colorado Division of Wildlife (CDOW) maintains an active hatchery program supporting recreational fishing on the forest and stocks a variety of native and desirable nonnative fish species. Stocked fish include Rio Grande cutthroat trout, rainbow trout, brown trout, brook trout, Snake River cutthroat trout, kokanee salmon, and splake. Creel surveys were conducted by CDOW at several high use reservoirs and streams on the Forest. Creel surveys were conducted at Beaver Creek Reservoir, Big Meadows Reservoir, Road Canyon Reservoir, Platoro Reservoir, and the Rio Grande. Rainbow trout was the most common fish recorded in the creel by the approximately 400 anglers contacted. Angler catch rates remained the same as the 2003 level at 0.60 fish/hour. A 0.60 fish/hr catch rate is above the 0.50 fish/hr target to

maintain angler satisfaction. Sportfish inventories, utilizing electrofishing and gill nets, were conducted on three streams and two reservoirs on the Forest. Results from these inventories confirmed stable, self-sustaining populations of desirable nonnative trout species.

Native fish management and restoration is a high priority on the Forest. Management activities completed in 2004 for native fish include the Lake Fork Conejos River Restoration Project, Big Lake Restoration Project, Lake Fork Conejos River Barrier Repair Project, population monitoring and evaluation, genetic analysis, whirling disease monitoring, and wilderness stockings. The Lake Fork Conejos River Restoration Project and Big Lake Restoration Project entailed removing all nonnative fish from the stream. The stream and lake will be restocked in 2005 with Rio Grande cutthroat trout and possibly Rio Grande sucker. The Lake Fork Conejos River Barrier Repair Project entailed increasing the height of the barrier and filling the plunge pool which developed immediately below the barrier. Density, biomass, and population estimates were conducted on seven RGCT streams and relative abundance determination was made for four lakes.

Rio Grande cutthroat trout are found in 53 streams and 55 lakes/reservoirs on the Forest (2004), totaling approximately 367 stream miles and 1050 surface acres, respectively. RGCT populations are divided into three categories based upon genetic purity: core populations (>99% pure), conservation populations (>90% pure), and recreation populations (RGCT coexisting with nonnative trout species). Of the 57 streams, 23 of the streams and 2 lakes are considered core or conservation populations and 30 streams and 53 lakes/reservoirs are considered recreation populations. The number of RGCT recreation populations should remain fairly constant on the Forest as these are supported by CDOW hatchery stockings. CDOW stocked approximately 160,050 fingerling RGCT into 39 wilderness lakes and streams in 2004.

Of the seven RGCT streams surveyed in 2004, one stream was rated “At Risk and Declining”; three streams rated “Secure and Stable”; two streams “At Risk and Stable”; and one stream was intermittent with no fish present. Survival and recruitment of RGCT was very low in the four lakes surveyed. Rio Grande cutthroat trout tissue samples were collected from six additional Forest streams and submitted for genetic analysis. Whirling disease monitoring was conducted by CDOW on another 19 Forest streams. Results from the genetic analysis and whirling disease studies were not finalized in time for inclusion in this report.

In 2002, Rio Grande suckers were found in five streams on the Forest. Since that time, the prolonged drought appears to have impacted these streams. In 2003, surveys in three of the five streams, of which two were intermittent at time of sampling, failed to document any suckers. In Middle Fork Carnero Creek, no adult Rio Grande suckers were collected in 2004 although young-of-year suckers were observed in the stream. The status of this population is unknown but appears to be in jeopardy. Big Springs Creek which was first stocked with Rio Grande suckers in 2003, received a second stocking of suckers in 2004. Big Springs Creek is scheduled for sampling in 2005 to determine success of restoration efforts for Rio Grande sucker and Rio Grande cutthroat trout.

Only one viable population of Rio Grande chub is known to exist on the Forest. A self-sustaining population of Rio Grande chub exists in the Alamosa River drainage from Silver Lakes to Terrace Reservoir. Swale Lake, located in the South Fork Rio Grande drainage, was stocked with 156 Rio Grande chubs in 1992. Only one chub was collected from the lake during 1997 sampling. Swale Lake is scheduled to be sampled in 2005 to determine if any Rio Grande chubs currently exist in the lake.

Extremely low (to intermittent or totally dry) stream flows during the period from 2001 through 2003, and competition with introduced nonnative species, appear to have had some impact on native fish distribution and abundance on the Forest. Impacts range from less than desirable population parameters, to increased populations of nonnative, to entire loss of a population due to dry stream. Habitat problems, which have been suggested to be a major threat to the continued existence of native fish populations, today appear to be site specific problems and not an overall threat to populations

across the Forest. Currently, habitat problems are reflected in less than desirable population parameters within a specific stream segment but generally are not a threat to the overall population throughout the entire stream. The information available for the fishery resources on the Forest suggests that when properly implemented the Revised Forest Plan Direction, Desired Conditions, Standards, and Guidelines are effective in protecting biodiversity. However, this should continue to be evaluated to determine if there is any need for change, but at this time, no changes to Forest Plan Direction, Desired Conditions or Standards and Guidelines are warranted.

State of the Resource: Fire and Fuels Management

To address the "state" of the fuels resource, it must be represented as a manifestation of Forest health. In FY 2004, several areas within Fire Regimes 1 (High Frequency/Low Severity) and Fire Regime 3 (Medium Frequency/Mixed Severity) and in Condition Class 2 or 3 were identified, evaluated, and treatment planned. Though the drought conditions have somewhat abated, prescribed fire treatment options must still consider the effects carefully and applied judiciously. Where fire treatments were implemented (in October of 2003 (FY 04) and April/May of 2004), results were favorable. Mechanical fuels treatment options are being utilized to a greater degree, both to address the lack of appropriate burn windows and alleviate concerns for projects near developments. Additionally, implementation of the National Fire Plan (in particular Keypoint #3's Hazardous Fuels Reduction for "communities at risk" direction) has sharpened our focus on fuel treatment planning in wildland/urban interface and intermix areas. The planning in these areas (to reduce the risk of crown fire initiation and spread) has addressed the potential conflict between what is the best silvicultural treatment and what will truly reduce the risk of crown fire initiation and spread.

On-going fuels/forest health surveys and evaluations provide land managers with valuable insight into the state of the resource as relates to the potential for wildland fires to create unacceptable resource impacts. Though some areas have been identified as such, the Forest Plan provides adequate direction and needs no significant changes in fire and fuels management. A supplement or addendum to the Forest Plan may be needed to reflect some revised terminology and definitions contained in the 1996 *Federal Wildland Fire Management Policy Action Plan*, the 1998 *Wildland and Prescribed Fire Implementation Procedures Guide*, and the *Review and Update of the 1995 Federal Wildland Fire Management Policy* (January 2001).

State of the Resource: General Infrastructure

Monitoring, based on the results of routine inspections of all facilities, including dams, facilities, drinking water, road bridges, trail bridges, and Forest System Roads indicates the general infrastructure is meeting the needs of Forest users for access and multiple-use management.

State of the Resource: Health and Safety

The intent of the National Health and Safety Codes and Occupational Safety and Health Administration guidelines were met.

State of the Resource: Heritage Resources

The Rio Grande National Forest made progress in conducting the Heritage Resource monitoring called for in the FY 2004 Annual Monitoring Operation Plan (AMOP). The monitoring of several completed projects of different types where heritage resource sites were identified for protection indicates that protective measures are adequate to ensure the protection of sites. The monitoring of Heritage Resource sites, not associated with a specific project, that have the potential to be vandalized should be continued to further comply with established Standards and Guidelines. The review of Heritage Resource Inventory Reports for FY 2004 indicates that projects with the potential to impact Heritage Resources are being inventoried and protective measures are adequate.

The Tribal Consultation Bulletin (TCB) was issued in March of 2004 with entries for the County Line Timber Sale, Village at Wolf Creek Road Access Proposal, the Alpine Fuels Reduction Project, the Embargo Fuels Reduction Project, the Bear Creek Winter Range Habitat Improvement/Fuels

Reduction Project, Schrader Mule Deer Habitat Hydroaxe Project, and the Buffalo Pass Prescribed Burn Project. The Tribal Consultation Bulletin should continue to be used for initial consultation with American Indian people concerning project proposals that may impact cultural sites important to them. Expansion of the numbers and the types of projects included in the TCB is recommended, to further comply with Standards and Guidelines. Contact with Bulletin recipients by telephone should be initiated approximately 3 weeks after the mailing of the Bulletin, if necessary.

State of the Resource: Minerals

The minerals monitoring program requires the RGNF to validate leasing activities as well as standards and guidelines. No lease applications were processed for leasing by the BLM in 2004. Nine lease applications are being withheld pending appropriate analysis for Lynx. There were no major proposals in the locatable minerals program. Homestake Mining continued reclamation work on their Bulldog Mine in Mineral County. In the mineral materials program, the Forest Service administers a number of in-service, free-use, and commercial common variety mineral operations. All are done in compliance with Forest Plan Standards and Guidelines.

State of the Resource: Noxious Weeds

Noxious weeds are a persistent problem on the Forest. Inventories and control were conducted in FY2004. Cooperative work between the Forest and the San Luis Valley Weed Districts resulted in a grant for an additional $5,000 to be used for treatment. Those species, which appear to have increased or have been inventoried more throughly are: toadflax, oxeye daisy, short whitetop, Canada thistle, black henbane, and Russian knapweed. Yellow starthistle has not been found on the Forest but it is located within adjacent counties to the west of the Continental Divide. The Forest treated 400 acres of noxious weeds in the past year.

State of the Resource: Range

Rangelands are being managed for a variety of seral stages with most being managed for upper mid-seral to high-seral condition. Inventory of rangelands conducted in FY2004 indicated that while there are a variety of seral stages found throughout the Forest, there is an imbalance of seral stage classes. There is not enough representation in the upper seral condition classes. Environmental analyses have been initiated to identify areas needing improved management and to correct management deficiencies. During the 2004 grazing season, only about 80% of the allowable numbers of livestock were placed on the Forest due to drought conditions and drought recovery needs. Approximately 30% of the livestock within the San Luis Valley have been sold or moved to pastures outside of the state of Colorado due to these conditions. The high price of replacement cattle has hampered the ability of many of the permittees to buy back replacement cattle. Data collection and getting analysis completed for getting allotments the Forest back on track with the Rescission Schedule has been a major emphasis item for this year.

State of the Resource: Recreation

Developed Recreation

Developed Sites:

Forest campground visitations and revenues in FY04 were up around 35% from FY03 because there were no fire restrictions or closures on the Forest that year.

The following deferred maintenance projects were completed in FY04: Elk Creek campground well, Lower Elk Creek trail bridge construction was begun, design of the Elk Creek campground rehabilitation project and a mile section of the Blue Lake trail (South San Juan Wilderness) was reconstructed.

Saguache has completed all the developed recreation targets and maintained the campgrounds to standard with very limited funds and resources.

Ski Area:

Wolf Creek Ski Area continued its scheduled summer project work during FY04. Projects included: construction of the new parking area access road, hardened of the stream crossing and clearing of the new lower parking areas; painting of all the ski area buildings; construction of a new ski trail; installation of the Gasex avalanche control system and a upgrade of the existing sewer plant.

***Special Uses**:*
Billings and issuance of special use permits is now done in SUDS.

Dispersed Recreation

Trails
Deferred maintenance trail inventories were completed for any of the districts in FY04. There are plans in FY2005 to complete additional deferred maintenance.

Motorized Trails
Approximately 250 miles of motorized trails were cleared on the Divide District. Approximately 8 miles of the Lost Trail (#821), approximately 3 miles of Miners Creek Trail, and the Beaver Mountain Trail was reconstructed in FY04. West Frisco Trail (#850) water bars were placed on the existing trail. Saguache District met their trails targets for FY04.

Non-Motorized Trails
A retaining wall was constructed along the Continental Divide National Scenic Trail along the Knife Edge to improve safety. Silverthread Campground and Bristol Head Campground had trails reconstructed (using rails and steps) to the waterfall vista. Willow (4.81), Rito Alto (8.34), Kelly Creek (4.5), Machine asin (13.5), Miners Creek (1), South Crestone (4.46), North Crestone (5.74), for a total of (42.3 miles) maintenance completed by force account. The Saguache portion of the Colorado Trail/CDNST was completed was maintained annually by the Colorado Trail Alliance. 1 mile of reconstruction was completed by volunteers.

Travel Management
ATV use is increasing on the Forest both during the summer and fall seasons. Use off of designated roads and trails is increasing as the amount of use increases. We have concentrated use on 25% of the trails that are open to motorized use. Monitoring of ATV use is mostly accomplished during hunting season which starts in August and ends in December. Regular use outside hunting season has increased in general. Some trails are still hazardous to ATV use as we have continual sluffing off of trail surface which is a ongoing maintenance concern on the Rio Grande National Forest. Volunteers monitored the winter use in the Lobo area and most users followed the posted regulations and designated use areas. Saguache inventoried 470 miles of roads and trails and the outcome was 240 miles of these were user created roads, 230 of these were system roads.

Unroaded Areas
Interim roadless area management direction remained in place. There is no direct affect from the interim roadless area management direction on our Forest Plan implementation in regards to our management of roadless areas. Representative Diane DeGett introduced another wilderness bill and continued in FY04 that includes the Pole Mtn/Finger Mesa area. No roadless areas were monitored in FY04. There have been no decisions regarding the DeGett Wilderness Bill.

Wild and Scenic Rivers
No Wild and Scenic corridor was monitored in FY04. The Forest Plan will need to be amended to address the changes and corrections to the Wild and Scenic section of the plan with the enactment of P.L. 106-530.

Wilderness
Wilderness team monitoring took place in compartments within the Weminuche and South San Juan Wilderness areas. Results indicate that the most resource standards are being met in the South San

Juan but there are a few standards being exceeded within various compartments of the Weminuche Wilderness.

Trails in Wilderness
Trails in the wilderness are more difficult to maintain because of minimum tool requirement. Therefore this becomes more labor intensive. There is still a gradual increase in wilderness use. Ute Creek Trailhead (the area immediately following the trailhead) was partially reconstructed (using turnpikes) due to high erosion and spring water flows. This same trail had work completed due to a rock slide. 75 miles of clearing was completed on wilderness trails on the Divide District.

State of the Resource: Research and Information Needs
Progress is continuing on 1) watershed-based inventories for old growth in conjunction with proposed timber harvest activities; 2) Forest roads inventories; and 3) collection of floral and faunal occurrence data for inclusion in the Colorado Natural Heritage Program Biological Database. Under NRIS, a civil rights project is ongoing to develop methods of identifying under-served communities.

State of the Resource: Research Natural Areas (RNAs)
The Finger Mesa RNA was visited and visually evaluated. There is some illegal ATV use (outside the big game hunting seasons) up one of the timber sale roads accessing the RNA. This information has been shared with Forest Service law enforcement officials. Otherwise, the majority of the RNA appears to be minimally impacted by human activity. Natural processes are the prevailing influence.

State of the Resource: Road Construction, Closures, and Decommissioning
No planned timber sale road closures were conducted in FY 2004. Ten miles of unclassified road were decommissioned in FY 2004. Approximately 93 miles of classified and unclassified roads have been decommissioned since 1996. (SM 02/15/2005)

State of the Resource: Scenic Resources
Three areas were monitored for Scenic Resources compliance during FY2004. In order to obtain Scenic Resources objectives, a project should comply with Scenic Integrity Objectives (SIO's) within two years after project implementation. The three areas will be under continued monitoring for changes.

The Mountain Lion Lookout Area marginally meets compliance for the Scenic Resources during the winter months when the landscape has high color contrasts. During the spring and summer, views into the area show only a slight change in texture and color. Straight line edges become most noticeable during the winter months. This has been monitored for the last 2 years with no changes or rehabilitation to the landscape since project implementation. Wolf Creek Ski Area has been notified of the recommended changes to the entrance walls and has agreed to begin staining the concrete color to come into compliance with the Scenic Integrity Objectives. The Wolf Creek project is still continuing.

The Village at Wolf Creek access analysis identified the need to change the Scenic Integrity Objective at the Wolf Creek Ski Area to make it compatible with the existing visual situation.

The Highway 160 Expansion Project is being monitored for Scenic Integrity Objectives. Retaining wall staining marginally meets the SIO's for the corridor above the new tunnel construction. Rock cuts across from the Fun Valley Campground Resort do not meet the Forest Plan Scenic Integrity Objectives as mapped "High", however, the rock cuts can be considered to meet the Scenic Integrity Objective of "Moderate to Low". Recommendations have been made to the state engineer to increase texture on soil nail walls and the use of darker stains on future rock walls. In addition blasting techniques along the Lonesome Dove Project to Windy Point are being monitored to assess whether they meet Scenic Integrity Objectives due to pre-slit blasting along a visually sensitive portion of Highway 160. In addition, monitoring will continue along the highway on tree removal, storage areas, wall staining,

seeding, and replanting to assess whether they meet the Scenic Integrity Objectives for the Highway 160 Corridor. These areas will continue to be monitored through project completion.

Range improvement features such as corrals along the Los Caminos Scenic Byway, meet a condition of "Moderate" and does not meet "High" as mapped. Efforts are underway to educate other disciplines of better ways to meet both scenic and economic needs along the Scenic Byway.

Overall, the Scenic Integrity Objectives are being met with most forest projects, with the exception of the aforementioned ones. At this time, there is no need to make changes to the Rio Grande Land and Resource Management Plan's Scenic Resource direction.

State of the Resource: Soil Productivity

The RGNF soil resource is carefully monitored through project evaluations and soil health assessments. In FY 2004, two projects were reviewed. Soil health is the current health condition of the soil and its ability to sustain the potential natural community of vegetation for the long-term. The three types of soil health ratings are Properly Functioning, At-Risk, and Impaired. Properly functioning means that soil physical, biological and chemical properties are functioning in a manner that maintains soil productivity. At-Risk means that some soil feature has been changed and in its current condition, there is a risk of losing productive capacity through erosion, nutrient losses or loss of surface cover. Impaired means that erosion has been occurring at accelerated rates or that unmitigated compaction is present.

Forest Plan Monitoring Site #1 Million Salvage Logging: On Friday, January 23, 2004, the Oil Pad Salvage Small Sale was inspect to monitor the winter logging that had occurred there over the past 3 months. This salvage operation harvested a portion (45 acres) of timber that was burned in the Million Fire in 2002. On the sale area itself, there was about 16 inches of snow. The whole-tree logging harvester had tracks and seemed to be able to get the work done in this amount of snow. Impacts to the soil are nonexistent. There is no compaction, no erosion, and fine slash has been broken off during skidding or returned by grapple skidder. Only three piles of coarse woody debris that would make excellent firewood were observed. The Forest Plan standards direct that winter logging or logging on frozen soils be done as often as practical. This sale meets that standard and the 15% standard for soil impacts. It also meets return of fine slash to the forested stand for nutrient cycling.

Million Salvage Logging Soil Health Rating: Properly Functioning.

Forest Plan Monitoring : #2 West Fork Rio Chama Landslide On Thursday, June 17, 2004, the Chama Basin Leche Creek Landslide was inspected for any re-newed activity. There was no evidence of active movement, which is to be expected in this dry decade we are experiencing. The slide is healing with grasses, shrubs, and some alder and aspen. The seed that was broadcast a decade ago is still growing on the site, but more native plants are establishing each year. In June 2004, a trip was made into the West Fork Rio Chama to investigate a new 40 acre landslide, that originated under natural conditions. A huge block of Conejos Formation conglomerate separated from a ledge and plowed a ¼ strip in its path below. It cause a fish kill in the stream killing Cuttthroat and Rainbow trout.

West Fork Rio Chama Landslide Soil Health Rating: Impaired, Recovering.

State of the Resource: Special Interest Areas

The botanical area at Elephant Rocks was visually inspected. *Neoparrya lithophila* plants appear to be vigorous and robust. The rocky habitat naturally protects these plants from most human influences. The John Charles Fremont Special Interest Area (Historical) was monitoired in FY 2004. There were no impacts relating to the area noted during the visit. The access Road from Divide Park is now a designatd ATV trail thus limiting access to ATV, horseback, or foot travel.

State of the Resource: Timber

Overall, timber resources across the RGNF reflect structure and composition within a natural range of variability. Some short-term human influences have affected, and are still affecting, the structure and composition of forested communities, particularly lower elevation forest cover types.

On-site field monitoring, primarily within past timber sale boundaries, during the summer of 2004 revealed the following relative to monitoring objectives:

Restocking

Regeneration of areas harvested, since the mid-1970s when the Forest changed from mostly clearcutting to partial cutting (mostly shelterwood), has been consistently successful with natural stocking. The naturally occurring annual addition of new trees in mixed conifer forests has resulted in ample stocking. In 2004 approximately 318 acres of first year survival checks were completed on the Park Creek Salvage Timber Sale. No further regeneration surveys or certifications were completed in 2004. Specific areas that are planned for reforestation in 2005 are as follows:

- **Park Creek Savage**. Approximately 500 of stocking surveys for natural regeneration in this mixed conifer forest type are planned for 2005.
- **Fern Creek Salvage** Approximately 130 acres of stocking surveys for natural regeneration are planned in the Fern Creek Salvage timber sale where spruce beetle infested trees were removed.
- **West Fork Fire Salvage** 75 acres that were planted to Douglas-fir in 2004 will be surveyed on the West Fork Fire Salvage.
- **Drill Pad Fire Salvage** 73 acres that were planted to Douglas-fir and Ponderosa pine in 2004 will be surveyed on the Drill Pad Fire Salvage.
- **Twister Timber Sale** 89 acres that were planted with Engelmann spruce in 2004 on the Twister blowdown salvage will be surveyed in 2005.
- **Ruston Re-Entry** 96 acres of stocking surveys and 3rd year certifications for natural regeneration are planned for 96 acres on the Ruston Re-Entry.
- **Twister Blowdown Salvage** 50 acres of stocking surveys and 3rd year certifications for artificial regeneration of Engelmann Spruce are planned for 50 acres on the Twister blowdown timber sale.

Timber Suitability

The Forest amended the Forest Plan in 2000 with Amendment #4 to address timber suitability. The suitability amendment took effect in 2003 after appropriate consultation with the US Fish and Wildlife Service occurred with the updated Forest Plan Biological Assessment. Timber suitability has been, and will continue to be, evaluated during the project level planning phase for timber sales. Planning for the Handkerchief Mesa timber sales and County Line Vegetation Management Project occurred in 2004 and an evaluation of suitability occurred within these analysis areas. No further monitoring of timber suitability has been completed.

Insect and Disease Infestations

Foresters and entomologists have been active in monitoring insect and disease activities across the Rio Grande National Forest with some success in control activities. However, the overall condition of forest health is declining with serious levels of insect outbreaks, probably related to the extended drought. Additionally, many of the areas where insect and disease problems occur fall in the habitat and habitat linkages for lynx. A summary of the on-going activities across the Forest is listed below:

- The Grouse timber sale was sold in 2002 and harvesting of trees infected with spruce beetle has begun. During the summer of 2004 monitoring of the site found that numerous additional trees had been infected with spruce beetle. The beetle flight was monitored using three phermone baited traps. These traps showed spruce beetle activity was still occurring

but at reduced levels from previous years. Monitoring in this area will continue in 2005. The current timber sale contract expires this summer and another sale is planned for 2006.

- Monitoring of spruce beetle infested trees continued on the Twister timber sale and a small number of additional trees were treated using sanitation/salvage harvest in 2004. Monitoring in 2003 has shown that the spruce beetle has infested an additional 261 acres that are now under contract and treatment of this area will begin in 2005. Further monitoring of trees will occur in 2005 on the Twister sale area.

- Spruce Beetle monitoring occurred on the Spruce Hole timber sale. Only a small number of additional trees were marked for removal in 2004. It appears that spruce beetle control efforts have been successful in this area. Additional monitoring will occur in 2005 and this timber sale expires in July of 2005.

- Spruce beetle monitoring occurred on the La Manga timber sale in 2004. Very few additional trees were marked for treatment within the existing sale area boundary. However, many new beetle hit trees were discovered outside of the existing sale area boundary. The District is considering expanding the treatment area in 2005 to treat these additional infested trees.

- Spruce beetle monitoring occurred on the Fern Creek timber sale in 2004. Very few additional trees were discovered in the treatment areas. The current timber sale contract expired last winter. The District is considering treating infested areas outside the original treatment area that were discovered in 2004.

- Spruce beetle monitoring occurred on the Neff Mountain Spruce Beetle Salvage. Numerous new trees were discovered within the treatment areas but could not be marked due to deep snow. Additional monitoring is planned for 2005 and additional trees will be marked for removal under the existing timber sale contract.

- Treatment of the Shaw Lake spruce beetle salvage is planned for 2005. Additional monitoring in the Shaw Lake area is planned for 2005. Treatment of this area may begin in late 2005 or in 2006.

- Monitoring using three pheromone baited traps occurred in the County Line Analysis Area in 2004. Significant spruce beetle activity was observed. Additional monitoring is planned for 2005 and treatment activities are planned to begin in 2006.

- Significant spruce beetle activity was discovered in the Lake Fork area of the Conejos Peak Ranger District. Additional monitoring and field reconnaissance of this area is planned for 2005 to determine the full extent of this infestation.

- Major spruce beetle activity was also discovered in the Red Mountain/Cornwall area of the Conejos Peak ranger District. Additional monitoring and field reconnaissance of this area is planned for 2005 to determine the full extent of this infestation.

- The Antelope/Trickle Stewardship Contract for treatment of mountain pine beetle on the Saguache Ranger District has begun. Monitoring in 2004 indicates that mountain pine beetle is continuing to spread within the treatment areas. It is estimated that the additional volume that will be marked in 2005 will exceed the original volume by about 20%.

- The mountain pine beetle infestation adjacent to the Buffalo Pass Campground continues to spread. The timber sale is under contract but treatment has not yet begun. Monitoring is planned for 2005 and it is expected that additional trees will be marked that will exceed the original volume by 10 to 20%.

- Monitoring for Douglas-fir beetle and mountain pine beetle occurred on the Million Fire Salvage. Many of the live, stressed trees have been impacted and some additional trees were marked for removal. Additional monitoring is planned for 2005.

- Carboryl treatments of trees in several campgrounds were completed in 2004 to protect high value trees from Douglas-fir beetle and mountain poine beetle. The treatment included the following: .One-hundred-seventy trees were treated in the Buffalo Pass campground, 500 trees were treated in Trujillo Meadows campground, 200 trees were treated in Mogote campground, and 100 trees were treated in Aspen Glade campground. Carboryl treatments were also used to protect 30 trees at the River Springs work station and 20 trees in the Big Springs picnic area. These treatments proved to be 100% effective. Additional treatment of these trees was planned for 2005 but will not occur due to funding reductions.

- Douglas-fir beetle has continued to be observed and is increasing on the Saguache District in Douglas-fir stands. This is an expected event given the combination of the recent Western Spruce Budworm infestation and drought conditions that have severely stressed trees. Park Creek Salvage was visited by the Gunnison Service Center and Rocky Mountain Experiment Station to survey for Douglas-fir beetle and plan for baiting beetles prior to prescribed burning the area. Approximately 2,000 trees were protected using MCH caps in the Park Creek area. Monitoring showed that the treatments were effective. Additional MCH caps will be applied in 2005.

- Monitoring has shown that Mountain Pine Beetle has moved into numerous Ponderosa Pine and some lodgepole pine stands. Some of these areas such as Little Kerber salvage are planned for treatment in 2005. Additional monitoring of mountain pine beetle on the Saguache Ranger District is planned for 2005.

- Significant Douglas-fir beetle activity was observed in the Alamosa Canyon on the Conejos Peak Ranger District. Monitoring of the Douglas-fir beetle in the Alamosa Canyon is not planned for 2005.

- Major Fir Engraver was discovered in the November salvage area. Treatment and monitoring are not planned for 2005.

- Table Mountain on the Saguache Ranger District was monitored for Spruce Beetle by the Gunnison Service Center. No spruce beetle activity was observed.

Harvest Openings

Harvest openings from current, recent, or proposed timber management have not approached, and/or are not expected to approach, the 40-acre limit.[1] Most harvest openings are less than one acre in size. Past-created openings exceeding the 40-acre limit generally trace back to clearcutting in the 1960s and early 1970s. Most are fully stocked with sapling or pole-sized trees and are no longer openings.

1 "Harvest openings" are here defined as final harvest treatments such as clearcuts/coppice, final overstory removals of shelterwood or seed-tree systems, or groups from group-selection systems. Smaller openings created from removal of individual trees or small clumps of trees, as in single-tree-selection harvests, are generally too small to be considered as openings. Also, not all overstory-removal harvests create openings, because in many instances, a fully stocked understory of sapling- and pole-sized trees is already fully established, particularly in spruce-fir stands, and the released stand exceeds trees per acre, average height, and distribution criteria for Silvicultural Guideline #4, "Opening Guidelines" (see page III-21 of the revised Forest Plan).

Output Performance

Timber resource outputs are measured in various ways including "acres treated" and "volume of material harvested" (in either cubic or board feet). Several key outputs are stated in the Management Attainment Report (MAR). MAR timber resource outputs for FY 2004 are displayed in the table below:

Item	Measure	Planned	Accomplished	% Accomplishment
Reforestation/Planting	Acres	127	65	50%
Reforestation Surveys	Acres	318	318	100%
Timber Volume Offer	CCF	18,666	18,248	98%

Recommendations

No major changes need to be made to the Forest Plan. Suggested minor changes in the Forest Plan include:

- Change second sentence in Silviculture Standard #2 to read, "Even-aged, two-aged, or uneven-aged management systems can be used and applied..." The rationale for this change is to better reflect the various management systems and to be consistent with Table III-4 on the same page.

- Page IV-25, under Desired Conditions for Management-area Prescription 5.11, add "Suitable timberlands will be managed to provide a sustainable flow of forest products." Though the production of forest products is mentioned in the Prescription Category 5 Discussion, and again under Theme and Setting for Management-area Prescription 5.11, the Desired Condition was omitted, even though this Management-area Prescription, along with Management-area Prescription 5.13, was modeled in the FEIS as part of the Forest's primary timberlands.

- Change the fourth Desired Condition, under the Forest Products Management-area Prescription on page IV-27, to "there are adequate old-growth components in forested stands." The rationale for this change is to be consistent with MA 5.11.

- District-wide assessment of insect and disease infestation should occur to address the current outbreaks.

Interdisciplinary Monitoring Team Contributers

Gilbert Becenti	Range Conservationist
Bob Dalrymple	Forest Planner
Les Dobson	Hydrologist
Dean Erhard	Ecologist
Theodore “Lary” Floyd	Asst. Fire Mgt. Officer
Diann Gese	Minerals
Stan Mattingly	Forest Engineer
John Murphy	Forester
Kelly Ortiz	Landscape Architect
John Rawinski	Soil Scientist
Vince Spero	Archaeologist
Greg Thompson	Recreation Forester
Laurel Kagan Wiley	Wildlife Biologist
Barry Wiley	Fisheries Biologist

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APPENDIX A
Monitoring and Evaluation Table
Rio Grande National Forest
Fiscal Year 2004

This appendix synopsizes the monitoring actions and results for fiscal year 2004. The monitoring items listed below correspond with the components listed in Table V-1 from the 1996 revised Forest Plan, as amended.

MONITORING ITEM	*METHOD and (CONTACT)*	*PLANNED LOCATIONS*	*MONITORING ACCOMPLISHED (what, where, results, summarize, references)*	*EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)*
Air Quality				
Monitor & Evaluate (M & E) visibility, lake chemistry, and terrestrial systems. 36 CFR 219.27 (a).	(1) Photographic documentation of visibility. Coordinate with NPS. (L. Dobson)	Great Sand Dunes National Monument.	Visibility and particulate monitoring was completed. However, analysis by the Univ.of California at Davis of data collected in FY 2004 is pending.	No changes in the Forest Plan needed.
	(2) Chemistry of most sensitive lakes. (K. Garcia, J. Fairchild, K. Murphy, L. Dobson)	Three lakes in the Weminuche WA; 2 in the S. San Juan WA; 2 in the La Garita WA; and 1 in the Sangre de Cristo WA.	Sampling was completed at all 8 lakes. These results are available to define current good conditions and appropriate control technology when new major polluting sources are proposed that could impact these wilderness areas.	No changes in the Forest Plan needed.
	(3) Health of terrestrial systems such as lichen communities. (L. Stewart)	Three sites from the baseline survey will be reassessed over time by measuring concentration of chemical elements to begin measuring trends.	No additional monitoring of lichen occurred on the Rio Grande NF in FY99 through FY04.	No changes in the Forest Plan needed.
M&E Burn Plan. 36 CFR 219.27 (a).	Visual verification of smoke dispersal. (L. Floyd, L. Dobson)	Several burns were completed.	One large Prescribed burn was accomplished (Park Creek) with good smoke dispersal. Stable atmospheric conditions existed throughout the burning period. No complaints were received from the public.	No changes in the Forest Plan needed.
Assess air resources relative to (a) Forestwide Goals, Objectives, S&Gs; (b) Management-area Prescription Objectives, DCs, and	From monitoring results, conclude whether Standards and Guidelines and regulations are being followed, and if Desired Conditions are being met. (L. Dobson)	As a result of monitoring all the above sites.	Forest management activities are following Standards and Guidelines. Desired Conditions are being achieved.	No changes in the Forest Plan needed.

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
S&Gs; (c) Management-area Prescription allocations and monitoring methods (36 CFR 219.12 (k))				
Aquatic Resources				
M&E Watershed Disturbances. 36 CFR 219.27.	Level I watershed assessment to measure total and connected watershed disturbance and compare to concern levels. Measure acres of disturbance in each 6th/7th level watershed. Use runoff curve numbers to equate all disturbances to an equivalent roaded area. Assess risk to watershed health from increased runoff. (Hydrologist: L. Dobson)	Timber Sales: County Line Range Allotments: South San Juan, Handkerchief Mesa, Park	Larger timber sales and range AMPs EAs that included watershed assessments were the County Line Timber Sale; and South San Juan, Handkerchief Mesa, and Park range analyses. Several small timber sales that relied on a programmatic EA or CE include: Browns Creek, Duck Pond, Spanish Poles, Sunnyside Aspen, Neff Mountain, Finger Mesa Beetle Salvage, and Shaw Lake. No new watersheds of concern were discovered.	From past work it appears that concern levels for total watershed disturbance have been set conservatively at a safe level to ensure adequate watershed health. No changes are needed.
M&E Stream and Riparian health. 36 CFR 219.27a.	(1) Level III stream assessment on one stream per 6th level watershed for each EA analysis area. By comparing to a like reference stream, assess water quality, channel condition and riparian function to measure amount, if any, of impairment. (Hydrologist: L. Dobson)	As described in the next collumn.	Stream health assessments were completed on several streams during range and timber projects. Streams in the Handkerchief Mesa and Park AMP assessments included Race Creek, Park Creek, Beaver Creek, Little Beaver Creek, North Clear Creek, Big Spring Creek, Spring Creek, Buck Creek, Mason Creek, Rito Hondo Creek, and Kitty Creek. Localized bank instability was attributed in part to livestock. Overall stream health was adequate to robust. Park Creek continues to recover from historic heavy use. Several reaches of Elk Creek were also evaluated in preparation for an upcoming AMP action. This creek has a high percentage of unstable bank on a reach within Second Meadows. Instability is in part due to livestock use and lack of bank stabilizing riparian vegetation. Historic heavy use is also a factor in current condiition. Pass Creek continues to be fully protected from Wolf Creek Ski Area activities and mostly protected from highway 160 reconstruction activities. East and West Willow Creeks and Windy Gulch were monitored as part of the Willow Creek mined land	Stream health direction in the Plan is appropriate. No changes are needed.

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
			reclamation project. The Forest is participating with the Willow Creek Rec. Steering committee. Several streams were evaluated prior to fuel reduction projects, including ephemeral channels tributary to the Hot Creek, Dry Creek, Schrader Creek, East Pass Creek, and Houselog Creek. The intent of these evaluations was to determine whether channels were currently healthy or whether they needed special protection as part of the project. Most of these channels have had impacts from activities in the distant past and are in various stages of recovery, but most are recovering well with new channels established within old gully walls that are naturally revegetating. In addition, perennial East Pass Creek was evaluated and found to be in robust stream health.	
	(2) Level III assessment to measure recovery of damaged streams over time. Compare changes in channel shape and composition to see if recovery is occurring with prescribed mitigation. (Hydrologist: L. Dobson)	Race Creek	One stream that has been used for reference in the past was revisitied. Race Creek, within actively managed grazing system, remains in healthy condition.	No changes in the Forest Plan are needed.
	(3) Level II stream assessment to see if watersheds of concern experience stream/riparian damage. Look for visible evidence of channel damage or water pollution. If visible evidence exists, document with a level II stream health assessment. (Hydrologist: L. Dobson)	Streams within watersheds of concern that are identified during level I Watershed assessments.	No additional watersheds of concern were identified during FY2004. However, permanent channel cross sections were installed on a 7th level watershed of concern (tributary to Rio de los Pinos) and on a tributary to Wolf Creek to monitor channel geometry. Heavy beetle kill has resulted in substantial loss of live basal area. Monitoring will assess if levels of live basal area loss approaching and exceeding 25% causes an increase in flow and change in channel geometry over time.	No changes in the Forest Plan needed.
Assess Aquatic Resources relative to 36 CFR 219.12 (k)	Visually determine if Standards and Guidelines have been implemented and are achieving the Desired Conditions. (Hydrologist: L. Dobson)	Timber and Range specialists routinely evaluate past and ongoing projects for compliance with Forest direction.	Implementation monitoring during timber sale and range allotment administration.	Aquatic S&Gs: No changes in the Forest Plan needed.
Biodiversity				
Monitor change in occurrence of	(a) Ripley milkvetch -- use plots and transects. (CSU Ph.D.	Hick's Canyon and Terrace Reservoir	Intensive plot monitoring completed by researcher J. Burt in her study areas. Data collection and evaluation	No changes recommended in the Forest Plan. Based on the results of

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
selected native species (Fine Filter). 36 CFR 219.27 and .19 (6)	Candidate: J. Burt; Ecologist: D. Erhard)		finished. Results indicate that the population demographics for this species are primarily influenced by moisture availability. Results also indicate that grazing by domestic livestock does not reduce *Astragalus ripleyi* population viability, at least in the short term. The recommendation is to avoid season-long grazing and to incorporate rotation-grazing schemes so that this species is not grazed at the same time of year every year.	this study, the Forest has decided to end intensive monitoring of this species. The Forest will continue extensive monitoring.
	(b) Rio Grande cutthroat trout, chub, and sucker (Native Fish Population Monitoring). Utilize electrofishing and gill nets. (Forest Fish Biologist: B. Wiley, FS seasonal employees; CDOW)	Numerous streams and lakes across the Forest are monitored for population status, genetic purity, whirling disease, and native fish restoration.	All native fish populations are monitored on a five year rotation. USFS and CDOW monitored RGCT population status in several streams/lakes on the Forest. RGCT populations monitored in 2004 include: Alberta Park Reservoir, Cottonwood Lake, Big Lake, Upper West San Francisco Lake, Jim Cr., Lake Fork Conejos River, Middle Fork San Francisco Cr., West Bellows Cr., Miners Cr. All population data was collected following CDOW protocols and entered into CDOW database. CDOW 2004 Fisheries Inventories *Rio Grande Basin* includes detailed analysis for these populations. RGCT tissue samples were taken and submitted to the University of Montana and Colorado State University for genetic analysis. Tissue samples were collected from Rhodes Gulch, Rough Canyon, MF San Francisco Cr., Jim Creek, Lake Fork Conejos River, and W. Bellows Cr. Whirling disease monitoring was conducted by CDOW on the following Forest streams: Rio Grande Reservoir, L.F. Conejos River, Big L., Osier Cr., Cascade Cr., Rio de Los Pinos, NF/MF/SF Conejos, Tuttle Cr., Middle/North Fork Carnero Cr., Hanson Cr., Quartzite Cr., Weminuche Cr., Pole Cr., Little Squaw Cr., West/Middle Ute Cr. Rio Grande sucker and Rio Grande chub populations on the Forest are very limited. The extended drought may have eliminated Rio Grande suckers from three of the five known streams. One of the two remaining streams is a new population initially stocked in 2003, with a second restocking in 2004. The other remaining stream was sampled in 2004 for whirling disease monitoring. In the limited stream section sampled no suckers were collected, so the status of this population is unknown. These two streams will be monitored in 2005. The two Rio Grande	No changes in the Forest Plan recommended. Cuthroat trout, chub and sucker will be monitored as designated in the MIS Amendment in 2004. Rio Grande Cutthroat trout will be monitored as MIS beginning in 2004.

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
			chub populations will also be monitored in 2005. Nonnative fish are the single largest threat to native fish populations on the Forest. Quality stream habitat provides native fish an opportunity to successfully compete with nonnative fish. Habitat and population assessment work is ongoing, and the USFS and CDOW are working together to address nonnative fish threats.	
	(c) Boreal Toad – Monitoring and Survey (CDOW, FS)	Two existing sites were monitored and the proposed County Line project area was surveyed.	Adults were confirmed at both monitoring sites, but only 1site was productive (tadpoles, metamorphs and yearlings were documented). No toads were located in the County Line project area.	No changes in the Forest Plan needed.
	(d) Peregrine falcon - Ocular surveys of nests. (CDOW, FS)	Eight known nest sites on Forest and 2 on other public lands within Forest administrative boundaries.	Of 7 known exisitng sites, 6 were monitored in 2004. Of these 6, 5 were occupied, and 2 were known to be successful. One new site on Forest was confirmed, for a total of 8 on Forest.	No changes in the Forest Plan needed .
	(e) Southwest Willow Flycatcher (FS, FWS, CDOW)	Mapped habitats on RGNF. Project-specific sites for range allotments were surveyed on a project-specific basis.	Surveys were conducted on all 3 districts, based on maps and project-specific range allotments. No birds were found. Ground-truthing of habitat maps continued as a basis for future survey work.	No changes in the Forest Plan needed
	(f) Black swift - surveys of nests. (RMBO)	RGNF sites included in the state-wide Monitoring Colorado Birds (MCB) survey.	Surveys were conducted by RMBO and no change in status was reported for the RGNF.	No changes in the Forest Plan needed.
	(g) Bats – Surveys (CDOW)	CDOW bat surveys of known locations on the Forest.	No change in status of known Townsend's bat colony was reported.	No changes in the Forest Plan needed.
	(h) MIS Birds (FS and RMBO)	Existing RGNF sites included in the state-wide MCB survey. New Forest transects were established in ponderosa pine, montane grassland, and high elevation riparian habitats.	MCB publishes an annual statewide report. Data were collected by Forest personnel on new Forest transects and presence of MIS avian species were confirmed. Historical MCB data and 2004 Forest data will be analyzed in 2005. Project-specific inventory results are incorporated into project analyses and data are recorded in unpublished, internal databases. Presence of MIS avian species were confirmed on proposed project sites.	No changes in the Forest Plan needed

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
		Project-specific inventories were conducted.		
	(i) MIS bird habitat (FS)	Habitat at the Forest level is mapped based on species habitat requirements. Habitat availability is ground-truthed at the project level.	As part of the development of MIS monitoring protocols (to be finalized in 2005), species habitat needs were identified and habitats were mapped at the Forest level. Site-specific habitat availability and occupancy has been documented through project inventories.	No changes in the Forest Plan needed
	(j) Deer and elk (CDOW)	CDOW conducts population and harvest surveys by Game Management Units (GMUs). CDOW models population estimates by Data Analysis Units (DAUs).	Population estimates for mule deer in the Forest's 4 DAUs widely fluctuate over the last 20 years, but generally do not meet herd objectives in each of the 4 DAUs, so CDOW is managing mule deer to increase numbers. Population estimates for elk in the Forest's 4 DAUs widely fluctuate over the last 20 years, but are consistently above herd objectives in each of the 4 DAUs, so CDOW is managing elk to decrease numbers.	No changes in the Forest Plan needed
	(k) Deer and elk habitat (FS)	Habitat effectiveness is evaluted on a site-specific basis by project.	Mule deer and elk habitat effectiveness, based on road densities, generally are considered in the mid-range, but may be variable on a site-specific basis by project.	No changes in the Forest Plan recommended.,
Monitor the change in selected species habitat (Coarse Filter). 36 CFR 219.27.	(a) Other EIS special-status plants. Photo interpretaion site visits, GIS, satellite imagery. (Ecologist: D. Erhard)	Special-status plants are at various sites over the Forest.	A 2004 site visit was made to Sheep Mountain (near Stoney Pass), which was recorded by Dr. Carl Allen Purpus as the type locality for *Gilia sedifolia* in 1892. It is not clear which "Sheep Mtn." was the type locality reported by Dr. Purpus (there are numerous Sheep Mtns in SW Colorado). The 2004 site visit did not find the plant and habitat appeared unsuitable based on Komarek's 1995 discovery near Half Peak. Dr. Ron Hartman (curator fo the Rocky Mountain Herbarium) accompanied Dean Erhard to the Sheep Mountain site. The known *Salix arizonica* site was visited and it appeared stable and secure. No new special status plants were found this year.	No changes in the Forest Plan recommended.
	(b) Snag-dependent species. (FS)	Species inventories by project. Habitat is Forest-wide.	Species inventories in this habitat were conducted in conjunction with proposed projects. Habitat monitoring is scheduled every 5 years and will be reported in the 5-year evaluation report.	No changes in the Forest Plan needed.

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
	(c) Animal TEPS except those addressed above and those that can be coverd under the Riparian Wetland Objective. (FS)	Species inventories by project or in cooperation with other agencies. Habitat is Forest-wide.	Species inventories were conducted in conjunction with proposed projects (raptor surveys were conducted within project areas to verify historical nest sites and current use). TEP surveys are ongoing (Canada lynx and bald eagle – CDOW; Uncomphagre fritillary butterfly – FWS). Habitat monitoring is scheduled every 10 years and will be reported in the appropriate evaluation report.	No changes in the Forest Plan needed.
Monitor changes in composition, structure, and pattern for each Landtype Association. 36 CFR 219.27.	Photo interpretaion, GIS, satellite imagery, and/or spatial analysis. (Ecologist/Wildlife Biologist)	All Landtype Associations over the entire Forest.	No monitoring was required this year because it is too soon to detect any meaningful changes. We anticipate monitoring this item in year 2006.	No changes in the Forest Plan recommended.
Validate the vegetation composition and structure of LTA 1 reference landscapes. 36 CFR 219.27.	Photo interpretaion, GIS, satellite imagery, and/or site visit. (Ecologist: D. Erhard)	14 reference areas within E. Spruce on Mountain Slopes LTA. Found throughout the upper elevations of the Forest.	The IRI Center has completed the contract mapping and attributing of Common Veg. Unit (CVU) polygons on the Forest. The updated vegetation data will be used in future spatial analysis work, where feasible.	No changes in the Forest Plan recommended.
Monitor changes in CNHP Significant Plant Communities listed in EIS. 36 CFR219.27.	Photo interpretaion, site visits, GIS, and/or satellite imagery. (Ecologist: D.Erhard)	Special-status plant communities are at various sites over the entire Forest.	Site visits were made to several CNHP documented plant communities as follows: 1) *Salix wolfii* / mesic forb shrubland, 2) *Salix monticola* / mesic forb shrubland, and 3) *Carex utriculata* / herbaceous vegetation. Sites appeared stable and secure.	No changes in the Forest Plan recommended.
Monitor the progress of old-growth (Mehl 1992) inventory and reconnaissance on the Forest.	Ocular, plots, GIS, and/or satellite imagery. (Ecologist, Wildlife Biologist, Forester)	Forestwide	Old-growth inventories were completed for the following projects: Finger Mesa, Neff Mountain, Shaw Lake Beetle Salvage, and County Line Vegetation Mgmt. Project. To date, old growth (Mehl 1992) remains uncommon. On the Divide and Conejos Peak Ranger Districts, old growth appears to be limited due to a lack of patchiness, lack of structural diversity, and/or net productivity being too high. Because the Mehl criteria are biased toward more productive sites, the Saguache Ranger District appears to lack the productive capability to meet the Mehl old-growth descriptions.	No changes in the Forest Plan recommended. The Forest continued its progress toward inventorying old growth this year.
Evaluate Biodiversity and Wildlife relative to 36 CFR 219.12 (k).	Ocular, plots, transects. (Ecologist; Wildlife Biologist)	Project-specific basis.	The Ecologist, District and Forest Biologists conducted biological assessments and biological evaluations in conjunction with proposed projects. Project specific analyses did not indicate any biodiversity items in 36 CFR 219.12 (k) were in need of change.	No changes in the Forest Plan recommended.

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
Fire and Fuels Management				
Assess Fire/Fuels relative to: 36 CFR 219.12 (k).	Ocular estimates using photo guides for estimating downed woody fuels. Fuel transects and surveys to determine actual loading and arrangement. On-site inspections. (AFFMO, Ecologist, & Silviculturist)	Ponderosa pine and mixed-conifer cover types (fire regimes 1 & 3, condition class 2 & 3) – Forestwide. Wildland/Urban Interface/intermix (WUI) areas.	Analysis and evaluation of fuel profiles (loading, arrangement, continuity) was conducted in various mid to low elevation areas (mixed conifer, ponderosa pine, Douglas fir) of the Cochetopa Hills, the Alamosa River drainage, and in the Conejos River drainage. Treatment methods (RX fire, mechanical) have been developed and appropriate project plans (i.e. Burn plans,thinning plans) have been implemented. Monitoring of WUI and non-WUI projects indicated treatment objectives were met. WUI project planning continues in the Kerber, Bonanza, Conejos R, and South Fork areas. Drought conditions continue to affect some RX fire treatment options in FY04.	No changes needed in the Forest Plan
General Infrastructure				
Assess facilities for compliance with state & federal requirements & FS Handbook/Manual direction.	(1) Inspect dams, facilities, drinking water, road & trail bridges, and FDRs for safety and maintenance. (Forest Engineer)	50% of Forest road bridges, each high-hazard dams every 3 years, each medium-low hazard dams every 5 years, 25% of all trail bridges, 25% all drinking-water systems as required by the Safe Drinking Water Act, 20% of all facilities and 20% of all Level 3, 4, and 5 roads as required by programs/per FSH and FSM.	Bridge inspections were completed as scheduled by contract. Dam inspections were completed as scheduled by the State Engineer's office; 10% of the trail bridges were inspected. 85% of water systems have been sampled and tested in accordance with the Safe Drinking Water Act to date; 20% of the facilities were inspected; and 20% of the Level 3, 4, and 5 roads were inspected. Level 3, 4, and 5 roads were maintained according to assigned RO target levels. (SM 02/15/05)	No changes needed in Forest Plan monitoring requirements. Inspections and testing will continue as outlined.
	(2) On-site inspections to monitor compliance with Travel Management Plan. (Law Enforcement Officers, District Level II Officers, and other personnel as assigned)	Various locations around the Forest as patrolled by Forest Law Enforcement Officers and other Forest Personnel.	Inspections were conducted through hunter patrols and day-to-day contacts by law enforcement officers and other FS personnel. Numerous issues were raised and some citations issued, and the Forest continues to seek compliance with the current travel management plan.	No Forest Plan changes needed.
	(3) Assess planned road closures through on-site inspections. (Engineering & Timber)	None.	No planned timber sale road closures were conducted in FY 2004. Ten (10) miles of unclassified road decomissioning was accomplished in FY 2004. (SM 02/15/2005)	No Forest Plan changes needed.
M & E Infrastructure relative to: 36 CFR	Review and monitor infrastructure-related	As outlined in the Infrastructure section	The Forest Engineer reviewed the infrastructure monitoring that occurred in FY 2004 to determine if any	No changes in the Forest Plan recommended.

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
219.12 (k).	inspections and reports for compliance with Forest Plan Guidelines and Objectives. (Forest Engineer)	of the AMOP.	changes were needed relative to 36 CFR 219.12 (k). (SM 02/15/2005)	
Health and Safety				
Monitor and evaluate Forest activities with respect to National Health and Safety Codes and Occupational Safety and Health Administration guidelines.	Review and monitor guidelines on public safety and health. Forest Engineer	Forest	No adverse reports were received. (SM 02/15/2005)	No changes in the Forest Plan needed.
Heritage Resources				
Monitor and evaluate projects to assure Heritage Resources have been appropriately protected.	On-site-inspection of selected highly significant heritage resources. On-site inspection of: National Register-eligible heritage resources identified for protection during ground-disturbing project-related activities. (Heritage Specialist: V. Spero)	Identified highly significant heritage resources including open lithic sites, rock art, and prehistoric stone structures. Historic buildings are also included. Heritage resources located on selected range allotments, timber sales and/or prescribed fire projects.	Higly Significant Prehistoric Heritage Resource sites monitored in FY2004: 5RN330 Dog Mtn. Petroglyphs, 5HN55 Black Mtn. Folsom Site. 5RN323 Sentinel Mtn. Stone Structures. Historic Heritage Resources Monitored: 5RN314 Fitton Guard Station, 5R315 Off Cow Camp, 5RN427 Alder Guard Station, 5RN417 Elwood Guard Station. Project related monitoring: Qwest/Century Telephone Fiber Optic Project: 5RN365. Sites monitoried for the Park Creek Grazing Allotment include: Finger Mesa Timber Sale: 5HN219, 5HN220, 5HN221, & 5HN222. Mason Creek Timber Sale: 5HN11, 5HN12, & 5HN13. Horsethief Mtn. Timber Sale: 5HN87, 5HN98, 5HN99, 5HN100, 5HN104, 5HN120, 5HN121 & 5HN123. Results: All prehistoric and historic heriatge reources monitiored were reported to be in good condition. No major impacts are occurring..	No changes needed in the Forest Plan.
M&E Consultations with American Indians.	Assess proposed management activities and programs to determine if American Indian consultation was accomplished. (Heritage Specialist: V. Spero)	Review proposed project EAs where there is a potential for sites or geographic features that are, or have the potential to be, considered	The Tribal Consultation Bulletin (TCB) was issued in March of 2004 with entries for the County Line Timber Sale, Village at Wolf Creek Road Access Proposal, the Alpine Fuels Reduction Project, the Embargo Fuels Reduction Project, the Bear Creek Winter Range Habitat Improvement & Fuels Reduction Project, Schrader Mule Deer Habitat Hydroaxe Project, and the Buffalo Pass	No changes to the Forest Plan are needed. The Tribal Consulation Bulletin (TCB) should be issued as the initial Tribal contact for project and program proposals. The TCB includes most major projects or those smaller proposals with the potential to

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
		culturally sensitive to American Indians.	Prescribed Burn Project. In addition in FY2004 Tribal Consultation was initiated by individual project "scoping" letters and by the RGNF Quarterly Scoping Document (SOPA).	affect areas that are culturally sensitive to consulted America Indian Tribes. Additional follow-up, including phone calls to arrange visits to project areas, should be increased.
M & E Heritage Resource progam relative to 36 CFR 219.12 (k).	Review of all Heritage Resource Reports done in FY 2003. (Heritage Specialist: V. Spero)	Review of all Heritage Resource Reports done in FY 2004.	Reports for proposed projects sent to the Colorado State Historic Preservation Officer for concurrence were reviewed.	No changes needed in the Forest Plan. Proposed projects comply with 36 CFR 219.2 (k).
Minerals				
M & E oil & gas activities so effects do not exceed predicted by 10%	Compare annual & cumulate OG activity. (Minerals specialist)	Forest summary.	There was no oil and gas development on the Forest in 2004. The Forest Plan reasonable and forseeable development scenario and its efects are still valid as described in the Forest Plan.	No changes needed.
Verify if areas are compatible with FP stips. Assess if occupancy could be allowed on the lease tract. 36 CFR228.1.2 (e) 1,2,3.	Verification form. (Minerals specialist)	Each lease.	There was no oil and gas development on the Forest in 2004. The Forest Plan reasonable and forseeable development scenario and its efects are still valid as described in the Forest Plan.	No changes or additional analysis needed.
M & E Minerals program relative to 36 CFR 219.12 (k).	On-site inspections of mineral activities; review reports. (Minerals specialist)	Forest Summary.	Minor errata have been identified on the oil and gas leasing map. These will be addressed in the next Forest Plan revision. The Pinos Creek pit was reclaimed according to Forest Plan standards. The Forest Plan is an effective tool for protecting resources while allowing mineral development.	No changes or additional analysis needed.
Noxious Weeds				
M & E Noxious Weeds relative to: 36 CFR 219.12 (k).	Monitoring of noxious weeds (where and to what extent they are present) will be reported based on the evaluation of control methods on infested areas on the forest. (Forest and Ranger District Weed Coordinators)	Inventory efforts focused primarily on FDR road systems. Treatment is being conducted within the South San Juan Wilderness to control infestation of Yellow toad flax and canada thistle.	Forestwide inventories were conducted on all three Ranger Districts in 2004. Specific information on species found and areas infested and treated/inventoried can be found in Ranger District records. 400 Acres were treated by chemical and biological control means on the Forest .	No changes needed in the Forest Plan

MONITORING ITEM	METHOD and (CONTACT)	PLANNED LOCATIONS	MONITORING ACCOMPLISHED (what, where, results, summarize, references)	EVALUATION (What are the recommendations based on monitoring? Changes needed t the Plan?)
Assess the extent of infestation and control methods of noxious weeds.	Monitor noxious weed infestations and control methods by using on-the-ground surveys.	See above	See above	No changes needed in the Forest Plan
Range				
M & E Range program relative to 36 CFR 219.12 (k).	Refer to monitoring items that follow (see below)	See below.		
M & E Rangeland seral stage to ensure the Desired Conditions.	(1) Various methods and techniques will be derived from RAMTG. (Primary: G. Snell; Secondary: T. Post)	ConejosCanyon, Canon, SSJ Wilderness allotments, Platoro, Handerchief Mesa	Aproximately 35,000 acres were identified and 35 cover frequency transects installed on the Forest.	No changes needed in the Forest Plan.
	(2) Monitor Desired Condition transects for trend. (Primary: G. Snell; Secondary: T. Post, Kelly Garcia, L. Taylor)	See above	See above	No changes needed in the Forest Plan.
Assess rangeland suitability.	(1) Evaluate suitability of Forest Plan Rangelands. Intensive review at site-specific areas while applying criteria for capability and ID Team determination of suitability. (Primary Contact: G. Snell Secondary: T. Post , K. Garcia, L. Taylor)	A Rangeland Suitability Determination by specific allotments were undertaken for NEPA as per R2 RAMTAG. .	Rangeland suitability assessments were initiated in 2004.	No changes needed in the Forest Plan.
	(2) Evaluate suitability of rangelands at the AMP level. (Primary Contact: G. Snell; Secondary: T. Post, K. Garcia, L. Taylor)	See above	See above	No changes needed in the Forest Plan.
Monitor utilization of rangelands.	Various mehods will be used including: P/U cages, height-weight, stubble height, and ocular estimates. (Primary Contact: G. Snell; Secondary: , K. Garcia, T. Post, L. Taylor)	Each district will conduct analysis based on Forest Priority rescission Act Allotments.	Monitoring for vegetation utilization was conducted on all three Ranger Districts. About 200,000 acres were monitored for vegetation utilization. Various methods were used, including P/U cages, height-weight, stubble height measurements, and ocular estimates. Allotments monitored by Ranger Districts were the same as the Planned Locations in previous column.	No changes needed in the Forest Plan.
Recreation – *Developed Recreation*				
Assess developed sites for a) visitor	(1) Customer Survey. Forestwide Market and Customer Survey.	Forestwide.	There was no forestwide customer survey done in FY04. The next scheduled forestwide customer survey is	No Forest Plan changes needed.

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expectations, trends, and customer satisfaction; and b) quality and safe facilities.	(Forest and District Recreational Personnel)		scheduled to take place in fiscal year 2005. Information from the FY2000 customer survey on the Rio Grande NF is on the website at http://www.fs.fed.us/recreation/recuse/recuse.shtml.	
	(2) Annual Developed-Site Hazard Tree Inspections. Inspection of Forest's campgrounds and picnic areas for removal of hazard trees. (I&D Specialist & District Rec/Timber personnel)	Campgrounds & Picnic Areas	Annual hazard tree inspections of campgrounds & picnic areas were completed as part of the sites' preseason maintenance inspections. Hazard trees were marked and removed in FY04. Hazard tree inspection reports are on file at Ranger District offices. In addition, water sampling for safe drinking water is completed on a monthly basis.	No Forest Plan changes needed.
	(3) Monitor Ski Area Summer and Winter Activities. Monitor Wolf Creek Ski Area for compliance with approved summer/winter operating plans. (S. Brigham)	Wolf Creek Ski Area.	FY 2004 winter & summer operating plans were developed and approved and monitoring inspections made. Inspection reports are on file at the Divide RD office. Winter inspections included lift operations, ski patrol operations and procedures, avalanche procedures and operations, ski school operations, annual billings and payments and the monitoring of the cross country ski trail and use. Continued activities include: construction of the new parking area access road; hardening of the stream crossing and re-seeding on the benches near the two new lower parking areas. Removal of downfall trees along lift lines with a helicopter; continued installation of new ski trail signs	Continue to work with the ski area in conjunction with planned projects. No other changes in the Forest Plan are needed.
	(4) Monitor RGNF Special-Use Permits. Inspections documented and/or inspection reports MAR 62.5 (Forest and District Recreation Personnel)	Forest Recreation Residences, Outfitter Guides (O/G), recreation events, and concession permits	Districts issued new special use permits in conjunction with the prospectus process. Annual billings and issuance of special use permits is now done in SUDS The Forest continued to administer a majority of its special use permits in FY04.	A screening checklist is also required when deteminining whether to permit recreation events for compliance with FSM2721.49, FSH 1909.15, 30.3-2 and the terrestrial BA/BE. No other Forest Plan changes are needed.
Assess developed sites actual use compared with projected outputs (36 CFR 219.12 (k)	Use figures collected by concession campground mgrs and FS campground hosts in our fee campgrounds	All concession & FS campgrounds and picnic sites	Campground use and occupancy rates were recorded in our Forest concession campgrounds by the concession managers. Use reports are on file at the Forest's Supervisor Office. Campground visitation and revenues were up over 35% from FY02 when fire restrictions were in place. The Saguache District does not have concession campgrounds and 2 rental Granger Thye cabins were maintenance and fee collection is completed force account.	No Forest Plan changes needed are needed.
Evaluate developed	Comparative evaluation for M&E	Forestwide	Forest Recreation objectives, Forest-wide standards,	No Forest Plan changes are needed.

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recreation relative to 36 CFR 219.12 (k).	Report. (Forest and District Recreation Personnel)	Developed-Recreation Prescription Areas.	Recreation Management Area standards, Desired Conditions, standards and guidelines and monitoring were assessed in conjunction with proposed project assessments.	We will plan to monitor this element in FY05
Recreation -- *Dispersed Recreation*				
Evaluate traditional and nontraditional recreation opportunities.	(1) Trail log inventory using GPS -- MAR 62.3, 64.3. (Forest Trails Specialist and District Trail Coordinators)	10-15% of Forest Trails.	0 miles of trail was inventoried for FY2004 due to budget restraints.	No Forest Plan changes are needed.
	(2) Monitor representative watersheds to assess baseline capacity allocation. Monitor the amount of public and Outfitter Guide use occurring in identified watersheds. (Forest and District Recreation Personnel/RSST)	Forest –wide compartments.	Commercial capacity is monitored in all compartments and there are several compartments indicating over-allocation, these will evaluated on permit re-issuance. Capacity associated with public use and is random and limited most information associated with wilderness registration.	We will look at our calculations to determine if our baseline figures are correct and if so, what management actions might be needed. No other Forest Plan changes are needed.
Monitor effects of off-road vehicle use of Forest trails and roads. 36 CFR 295.5.	Assess impacts to physical, biological and social resources (Indicators). (Forest Recreation Specialist/RSST)	Hunter patrols during hunting season.	Hunter patrols were implemented again during the hunting season. Patrols indicate we are getting more use and impacts off designated roads and trails. Volunteers monitored the winter use in the Lobo area and indications were that most users observed the posted dispersed use areas and regulations. This is an ongoing project.	No Forest Plan changes needed. Forest is looking at management actions to address the increased off road and trail use.
Evaluate Dispersed Recreation relative to 36 CFR 219.12 (k).	Comparative evaluation for M&E Report. (Forest and District Recreation Personnel)	Forestwide Dispersed Rx Areas.	Forest dispersed-recreation objectives, forest-wide standards, management area standards and guidelines, desired conditions and monitoring were assessed in conjunction with proposed project assessments.	No changes in the Forest Plan recommended. We will plan to monitor this element in FY04
Recreation -- *Unroaded Areas*				
Assess the physical, biological, and social resources within Backcountry Areas.	Assess the impacts on the physical, biological, and social resources (indicators). (Forest Rec Specialist and RSST)	West Lost Trail/Lost Trail.	Last spring, the Divide RD put up signs (signs indicating types of travel allowed) on the Pole Crk, West Lost and Lost trails). A follow-up look at the signing and use on these trails was made in mid-June. The signs were still intact and helped with regulating the type of use permitted on these trails. (check with Art Marcilla) Representative Diane DeGett continued to sponsor a wilderness bill that includes Pole Mtn/Finger Mesa area (Handies Peak) for inclusion into the national wilderness preservation system.	No changes in the Forest Plan recommended. We will plan to monitor this element in FY04
Evaluate Backcountry Areas	Comparative evaluation for the M&E Report. (Forest and	Forestwide Backcountry Areas.	Mapping errors in the backcountry boundaries have been noted either during the initial work with project	A plan amendment and map corrections to the Alternative G map is

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relative to 36 CFR 219.12 (k).	District Rec Personnel)		environmental assessments (Fox Mtn (020948) or during routine field inspections. These corrections need to be addressed under an administrative correction to the Forest Plan and to Forest Travel maps. The Roadless Area Final Rule (published 1/12/01 in the Federal Register) no longer applies to the RGNF. Since the RGNF has a recent Forest Plan revision and a completed Forest-scale Roads Analysis, the Forest is free to implement the direction in the 1996 Forest Plan, as amended. However, for the 93,000 acres orignally affected by the November 2000 Roadless Area Conservation Final EIS (i.e., these areas were allocated to Management-area Prescriptions that allowed road construction and reconstruction), it would require Regional Forester approval to implement road construction, reconstruction, and timber harvest activities in inventoried Roadless Areas.	on hold until the Plan Appeal Decision work is completed. No changes in the Forest Plan recommended. We will plan to monitor this element in FY04
Recreation -- *Wild and Scenic Rivers*				
Assess the physical, biological and social resources within Wild and Scenic River corridors.	Assess impacts on the physical, biological, and social resources (Indicators). (Forest / District Recreation Personnel and Core Team)		The enactment of P.L 106-530, the Great Sand Dunes National Park and Preserve Act, created the need for the Forest Plan to be amended to address the changes to the Wild and Scenic River write-up section of the Forest Plan in addition to the map correction changes to the Alternative G and Forest Travel maps.. No Wild and Scenic river corridors were monitoried in FY04.	The Forest Plan will need an amendment to address the Forest boundary and mangement changes due to the Act. The Wild and Scenic River changes and corrections to the Alternative G map are on hold until the Baca land transfer is completed. No other Forest Plan changes are needed.
Evaluate Wild and Secnic River Management –area Prescription Objectives, Desired Conditions, and S&Gs. 36 CFR 219.12 (k)	Comparative evaluation for the M & E Report. (Forest and District Recreation personnel)	Forestwide Wild and Scenic River Management-area.	The W/S river standards, desired conditions, allocation and monitoring were reviewed.	No changes in the Forest Plan recommended. We will plan to monitor this element in FY04.
Recreation -- *Wilderness*				
Monitor and evaluate visitor-use levels and other Wilderness resources. 36 CFR 293.2	Schedule for implementation those Priority 1 items outlined in each wilderness Area WIS. Surveys, data gathering, and reports. (District Wilderness Coordinators, Wilderness	South San Juan and Weminuche Wilderness Areas	Baseline monitoring was done in FY04 in numerous compartments in the Weminuche for meadow health trailhead registration, wilderness ranger trail contacts, And commercial capacity. With the enactment of P.L 106-530, the Great Sand Dunes National Park and Preserve Act, documented	The Forest Plan needs to address the Wilderness area (Sangre de Cristo) affected by P.L.106-530) and make corrections to the Alternative G map. This will be done after the Baca land transfer is finalized.

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	Rangers, and Resource Specialists)		changes need to be written that addresses the changes to the Wilderness section of the Forest Plan in addition to the map correction changes to the Forest Plan map. Fish stocking in Wilderness areas was addressed through the Wilderness Management Direction EA. A typographical error in the Forest Plan regarding stocking of indigenous fish in Wilderness was corrected with an errata sheet. In the La garita Wilderness Saguache implented new special orders and high lake water sampling for air quality. The Sangres are continually monitored by the Recreation Staff in Saguache.	The wilderness team is assessing those compartments where some standards are being exceeded and developing recommended management actions. No changes are needed to the monitoring indicators outlined in the wilderness EA.
Evaluate Wilderness Forestwide Goals, Objectives, S&Gs and Wilderness Management-area Objectives, Desired Conditions, and S&Gs. 36 CFR 219.12 (k).	Comparative evaluation for the M&E Report. (Forest Recreation Specialist and District Widlerness Coordinators)	Forestwide Wilderness Management-areas.	The Wilderness team has prioritized and monitored wilderness compartments to evaluate whether standards are being met or exceeded.	Continue to monitor wilderness compartments in FY04.
Research and Information Needs				
Determine progress of accomplishing needed research. (Items listed on the top of page V-16 of the Forest Plan).	Questionnaire. (Forest Staff)	Poll Forest Resource Specialists on progress.	Progress is continuing on: 1) watershed-based inventories for old growth in conjunction with proposed timber harvest activities; 2) Forest roads inventories; and 3) collection of floral and faunal occurrence data for inclusion in the Colorado Natural Heritage Program Biological Database. Under NRIS, a civil rights project is ongoing to develop methods of identifying underserved communities.	No changes in the Forest Plan recommended.
Research Natural Areas (RNAs)				
Evaluate RNAs relative to 36 CFR 219.12 (k).	Ocular, plots, transects, GIS. (Ecologist: D. Erhard)	Designated Research Natural Areas.	The Finger Mesa RNA was visited and visually evaluated. There is some illegal ATV use (outside the big game hunting seasons) up one of the timber sale roads accessing the RNA. Otherwise, the majority of the RNA appears to be minimally impacted by human activity. Natural processes are the prevailing influence. There was no evidence of any conflict with 36 CFR 219.12 (k).	No changes in the Forest Plan recommended.
Scenic Resources				
Determine if project Scenic Integrity Objectives (SIOs)	On-site or photo-point monitoring. (Landscape Architect: K. Ortiz)	Projects where Scenic Resources is a key issue, and special	Many of the sites monitored for 2004 are the same sites monitored in 2003 (relative to meeting Scenic Integrity Objectives). Wolf Creek Ski Area: site visits showed that	No changes needed in the Forest Plan.

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were met. Assess changes in SIO with respect to ROS.		areas such as campgrounds, gravel pits, and utility sites.	the new exterior entrance walls were not in compliance with the Scenic Integrity Objectives for the site. The color does not borrow from the characteristic landscape. Consultation continues with the Wolf Creek Ski Area operator to make the necessary changes. Mountain Lion/Lookout Timber Sale: there are notable contrasts during the winter months on the landscape as viewed from the highway. This area will continue to be monitored. Hwy. 160 Project: has some rock walls that do not come into compliance with Scenic Integrity Objectives, since pre split holes can be seen. These will continue to be monitored. Windy Point to Lonesome Dove phase of the Hwy 160 Project: this area will continue to be monitored through 2004. The Village at Wolf Creek access analysis identified the need to change the Scenic Integrity Objective at the Wolf Creek Ski Area to make it compatible with the existing visual situation.	
Determine if SIOs were met. Assess Constituent Survey information	Constituent surveys, visitor observations, interviews, and public participation. (Landscape Architect: K. Ortiz)	Ranger District roads, trails, and recreation sites.	Constituent Surveys were not completed in FY 2004, since the surveys are awaiting Washington Office approval.	No changes needed in the Forest Plan.
Evaluate scenic resources relative to 36 CFR 219.12 (k).	Summarize report	Forest	Three separate areas were monitored for Scenic Resource compliance during FY 2004. Under the terms of Scenic Resources, all areas have two years to come into compliance with the Scenic Integrity Objectives for any area after project implementation. These projects will continue to be monitored over the next year.	No changes needed in the Forest Plan.
Soil Productivity				
Assure that land productivity is maintained or improved.	(1) Monitor soil quality standards. (Soil Scientist: J. Rawinski)	Million Salvage logging	This area is in properly functioning condition.	No changes in Forest Plan needed. Standards and assessments seem to be working.
	(2) Use erosion model to predict erosion or analyze projects after completion. (Soil Scientist: J. Rawinski)	None		No change needed.
	(3) Ocular estimates, pace transects, on-site, professional judgements to monitor fertility,			No change needed.

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	erosion, mass movement. (Soil Scientist: J. Rawinski)			
	(4) Mass-movement evaluation by monitoring existing and potential problem areas. (Soil Scientist: J. Rawinski)	Projects where mass-movement potential is moderate or high and other landslide-prone areas, W. Lost Trail Creek, Chama Basin, others.	Inspected the Chama Landslides. Leche Creek slide from 1986 is healing. A new natual-caused landslide occurred in the West Fork Rio Chama in May 2004.	No changes needed.
M & E reclamation and reveg. efforts. (Soil Scientist: J. Rawinski.)	On-site and/or randomtransects, review District project records and erosion models. (Soil Scientist: J. Rawinski)	None	None	No changes needed. The Forest Plan gives appropriate direction to reclaim damaged soils.
M & E Soil Productivity relative to 36 CFR 219.12 (k).	Project results, field reviews, data analysis, and modeling results. (Soil Scientist: J. Rawinski)	See above.	See all projects above.	No changes needed.
Special Interest Areas				
Assess protective measures and interpretive efforts.	Ocular surveys. (Ecologist: D. Erhard; Heritage Resource Specialist: V. Spero)	SIAs	The botanical area at Elephant Rocks was visually inspected. *Neoparrya lithophila* plants appear to be vigorous and robust. The rocky habitat naturally protects these plants from most human influences.	No changes in the Forest Plan recommended.
Evaluate Special Interest Areas relative to: 36 CFR 219.12 (k).	Summarize reports or information from Districts. (Ecologist: D. Erhard; Heritage Resource Specialist: V. Spero)	SIAs	The botanical area at Elephant Rocks was evaluated for this component. Monitoring did not reveal that this SIA for items in 36 CFR 219.12 (k) were in need of change. The John Charles Fremont Special Interest Area (Historical) was monitoired in FY 2004. There were no impacts relating to the area noted during the visit. The access Road from Divide Park is now a designatd ATV trail thus limiting access to ATV, horseback, mountain bicycle or foot travel.	No changes in the Forest Plan recommended.
Timber				
Restocking of harvest areas. 36 CFR 219.12.	Stocking surveys. (Silviculturist: J. Griffin)	All locations/sites planned for 1st-, 3rd-, and/or 5th-year surveys This includes 96 acres on the	In 2004, a total of 0 acres were suveyed for or certified as being fully stocked.	Restocking of harvest areas will continue to be montiored. 36 CFR 219.12.

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		Ruston Re-Entry that is to be suveyed and certified, First year stocking surveys are planned for 130 acres on Fern Creek, 75 acres on West Fork Fire Salvage and 73 acres on Drill Pad Fire Salvage, and 500 acres on Park Creek Salvage .		
Assess timber suitability. 36 CFR 219.12; 219.27	(1) Standard suitability determination at Forestwide level. (Analyst/Silviculturist)	Assessing timber suitability.	None planned or completed in 2004.	Continue to assess timber suitability at the project level. 36 CFR 219.12; 219.27
	(2) On-site inspection, inventory/growth-yield exams, soil sampling. (Silviculturalists {J. Griffin, J. Murphy}, Foresters and/or Technicians. Timber Sale Administrators {R. Newman,+ B. Valasquez}. Soil: J. Rawinski)	Pre-sale: County Line, Handkerchief Mesa Harvest Operations: Beaver Mountain II, Million Salvage, November, Grouse, Black Mountian	Areas within the County Line Analysis Area and Handkerchief Mesa Analysis Area were analyzed. No areas identified as suitable for timber production were identified as being unsuitable. One area on Handkerchief Mesa where the Forest Plan will be amended to correct a MAP mapping error, lands were assessed and found to be suitable for timber production. These areas will be added to the suitable timber base upon completion of the Fores plan amendment.	Continue to assess timber suitability at the project level. 36 CFR 219.12; 219.27
Assess insect and disease infestations relative to endemic levels prior to and following management activities. 36 CFR 219.12	On-site observation and limited sampling. Can include statistically accurate plots. (Silicuturalists.: {J. Griffin, J Murphy}; Foresters and /or Techniicians Sale-Admin {R. Newman, B. Velasquez}. R2 I&D {R. Mask, T. Eager})	Active timber sales and ongoing Landscape Analyses & post-sale. Also areas undergoing extensive natural disturbance. Dendrochronology Studies	Insect and disease infestations were observed in and around Grouse Salvage, Twister Blowdown, Spruce Hole Salvage, La Manga Salvage, Fern Creek Salvage, Neff mountain Salvage, Shaw Lake Salvage, County Line Analysis Area, Lake Fork, Red mountain/Cornwall, Antelope/Trickle, Buffalo Pass Salvage, Million Fire Salvage, West Park Creek, Alamosa Canyon and November timber Sale. Significant Mountain Pine Beetle was again noted in the Ponderosa Pine zone on the Saguache Ranger District.	Continue to Assess I & D infestations relative to endemic levels prior to and following management activities. 36 CFR 219.12
Monitor size of harvest openings. 36 CFR 219.27.	Traverses, stocking surveys, on-site. (Proj. Silvi. Proj. Prep Foresters/Forestry Technicians)	Pre-sale, current active sales, post-sale areas.	Harvest opening monitoring not planned or completed in 2005.	Continue to monitor size of harvest openings. 36 CFR 219.27.
Assess implementation of	On-site, photo points, density measurements. (Pre-Sale:	Pre-sale: Million Fire Salvage, Buffalo Pass	Reviews of the areas showed that silvicultural objectives were achieved on the West Fork and Drill Pad Salvage	Continue to Assess implementation of silvicultural objectives during pre-

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silvicultural objectives during pre-sale, harvesting, and post-sale periods	Project and Silvi/Prep Forester/Forest Techs and resource specialists. Active contracts: Sale Admin. Post-sale: Same as pre-sale)	salvage. Post-Sale: West Fork Salvage and Drill Pad Salvage.	Sales. Reviews on the Buffalo Pass Salvage and Million Fire salvage indicated that the sales were prepared according to marking guidelines to achieve the silvicultural objectives for these areas.	sale, harvesting, and post-sale periods
Assess output performance of TS program quantity components as compared /outputs. 36 CFR 219.12	Comparative evaluations (MAR items: 17.1, 17.2, 19.0, 19.1, 20.0, 20.1, 77.1, 77.4, 77.5, 77.8, 77.9, 79.1, 79.2. (Analyst and the Timber Staff)	Various Forest offices.	Planned outputs were accomplished for reforestion and timber offer, although the Forest target for timber offer was reduced because the Regional target was met.	Continue to assess output performance of timber program quantity components as compared /outputs. 36 CFR 219.12
Assess Timber program relative to 36 CFR 219.12 (k).	Comparative evaluations. (District TMA's and Forest timber program manager)	Various Forest offices.	The Ditrict TMA's and Forest timber program manager reviewed FP (Forestwide) Desired Conditions (Goals), Objectives, and Standards and Guidelines (for Silviculture); reviewed Management-area, Prescriptions, and Standards/Guidelines for Management-areas including Suitable timberlands (4.21, 4.3, 5.11, 5.13, and 5.41); and reviewed monitoring approaches to timber-related Desired Conditions.	Continue to assess timber program relative to 36 CFR 219.12 (k).

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