

Monitoring and Evaluation Report

FY 2001

Rio Grande National Forest, Colorado



United States Forest Service
Rocky Mountain Region
Region Two

May 2002



CERTIFICATION

The Rio Grande National Forest's Land and Resource Management Plan (Forest Plan) was approved on November 7, 1996. It has been amended four times to date. Timber harvest authorized by exception under the first amendment has been completed and consistent with the decision, the area will again be managed as backcountry. The fourth amendment for timber suitability has not been finalized, pending consultation with the US Fish and Wildlife Service.

Overall, the 2001 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. New recommendations for future amendments in are as follows:

- ❖ Unroaded area mapping errors need to be identified, analyzed for cumulative effects and scoped with our publics to propose making corrections to 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 our Alternative G and Forest travel maps to reflect the Park Preserve within the Sangre de Cristo Wilderness.
- ❖ On January 19, 2001, the Washington Office made a decision on Appeal #97-13-00-0057 (Colorado Environmental Coalition *et al.*) of Record of Decision for the Rio Grande National Forest Revised Land and Resource Management Plan. On March 29, 2001 the Secretary issued a Discretionary Review Decision on the Chief's Appeal Decision. The Forest Plan will have to be amended in accordance with these decisions.
- ❖ The Forest Plan will be amended through the Regional Lynx amendment that is underway. This amendment will be completed this fiscal year and incorporate lynx conservation measures through standard and guidelines into the Forest Plan.

I have reviewed the annual Monitoring and Evaluation Report for the Rio Grande National Forest for fiscal year 2001. 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.

Peter L. Clark
PETER L. CLARK
Forest Supervisor

June 12, 2002
Date

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This report was compiled, edited, and formatted by Vince Spero and John Murphy. Cover photograph by John Rawinski – fall colors on the Rio Grande National Forest.

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**Monitoring & Evaluation Report
Rio Grande National Forest
Fiscal Year 2001**

Introduction

The organization of this report is as follows. First, there is a discussion covering the basis for monitoring on the Rio Grande National Forest. Next, is a discussion covering amendments followed by potential amendments to the Land and Resource Management Plan (Forest Plan). Next, is a resource-by-resource discussion of the monitoring requirements. Finally, a "State of the Resource FY 2001" section describing the results of monitoring by each resource area. An appendix provides additional detail on this past year's monitoring results.

On January 19, 2001, the Washington Office 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. Specifically, the Chief's Office stated:

I affirm the Regional Forester with respect to the wilderness, winter recreation impacts on resources, wilderness fish stocking, travel management, Section 401 of the Clean Water Act, maximum size of created openings, and supplemental DEIS issues raised in the NOA and find that these portions of her November 7, 1996 decision comply with applicable federal law, regulations, and agency policy. I affirm with instructions the Regional Forester with respect to the continuous monitoring, and find that this portion of her November 7, 1996 decision complies with applicable federal law, regulations, and agency policy. However, I reverse the Regional Forester with respect to the conditioning at re-issuance and issuance of FLPMA (Federal Lands Policy Management Act) authorizations, viability and diversity, and livestock grazing suitability determination issues raised in the NOA, and find that these portions of her November 7, 1996 decision do not comply with applicable federal law and agency policy. The explanation for my decisions to affirm, affirm with instructions, or reverse on each of the issues presented in the NOA is set forth in detail below.

On March 27, 2001, the Secretary's Office issued a Discretionary Review Decision of the Chief's Appeal Decision. Specifically, the Secretary stated:

The Chief's appeal decision identifies eleven issues raised in the NOA. The appeal decision also contains an analysis of the appeal points for each issue, and the Chief's decision. All this information was analyzed and considered during my discretionary review of the appeal record. I have decided to affirm in part and reverse in part the Chief's January 19, 2001 appeal decision. My decision on each issue discussed in the Chief's appeal decision is as follows:

1. Viability and Diversity...Chief is affirmed, instructions are vacated, different instructions are provided.
2. Livestock Grazing Capability and Suitability Determination...Chief is affirmed.
3. Wilderness...Chief is affirmed.
4. Wilderness Fish Stocking...Chief is affirmed.
5. Travel management...Chief is affirmed.
6. Winter Recreation Impacts on Resources...Chief is affirmed.
7. Conditioning at Re-issuance and Issuance of FLPMA authorizations...Chief is affirmed with instructions.
8. Clean Water Act...Chief is affirmed.

9. Continuous Monitoring...Chief is affirmed, instructions are vacated.
10. Supplemental DEIS...Chief is affirmed.
11. Maximum size of Created Openings...Chief is affirmed.

Monitoring on the Rio Grande National Forest

In November 1996, the Revised Land and Resource Management Plan (Forest Plan) for the Rio Grande National Forest (RGNF or Forest) was approved. 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 after five years of Forest Plan implementation. 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 a relatively short time, this FY 2001 report focuses primarily on implementation and effectiveness monitoring. As trends develop and conclusions are validated, the third level of monitoring will be addressed.

Forest Plan Amendments

There have been four amendments to the Forest Plan to date.

Amendment # 1

Twister Blowdown 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. 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 as well as tail rehabilitation work.

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. 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.

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 becomes effective upon completion of the consultation process with US Fish and Wildlife Service regarding the adequacy of the Forest Plan biological assessment and evaluation. Consultation is pending a proposed Regional amendment for lynx consultation and a revised analysis of the LMRP in response to the appeal decision of January 19, 2001.

Status of Previous Recommendations

There have been several recommendations for changing the wording of some of the silvicultural Guidelines (FY 97, FY 98, FY 99). There has been a recommendation for changing monitoring requirements for fish and birds (FY 98). 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 (FY 98 and FY 99). 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 (FY 99).

These recommendations were considered for inclusion in the amendment to add Management Indicator Species in the Forest Plan and for the most part will not be addressed at this time. The monitoring requirements for birds and fish maybe included in the amendment as monitoring protocols for the MIS are developed.

Potential Forest Plan Amendments

Unroaded area mapping errors need to be identified, analyzed for cumulative effects and scoped with our publics to propose making corrections to Alternative G and Forest travel maps. The Fox Mountain unroaded mapping error was addressed in the Handkerchief-Mesa environmental assessment, but decisions related to the environmental assessment have been withdrawn pending completion of the forest plan amendment to correct the forest plan deficiencies identified by the Secretary of Agriculture.

As a result of PL 106-530, Great Sand Dunes National Park and Preserve Act, there is a need to amend parts of the Forest Plan Wild and Scenic River and Wilderness section write-ups in the FEIS to address the change in ownership and administration and correct our Alternative G and Forest travel maps to reflect the Park Preserve within the Sangre de Cristo Wilderness.

Monitoring Requirements

This section briefly synthesizes 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 will be monitored three times per summer.

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 occur as Level III watershed assessments. Watershed assessments are completed on at least one stream and riparian area per Analysis Area for each land-disturbing Environmental Analysis. Monitoring of streams within watersheds that have been identified as “at risk” will be reported based on Level II watershed assessments. Monitoring of the 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

Maintaining the habitat necessary to support viable populations is required by 36 CFR 219.27 and 36 CFR 219.19(6). To determine if the Forest Plan is meeting this objective, 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 the Colorado Natural Heritage Program's list of Species of Special Concern and Significant Plant Communities.

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. 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, structural changes).

Providing for and maintaining diversity of plant and animal communities is required by 36 CFR 219.27. To ensure that the Forest is meeting this objective four attributes have been selected for monitoring because they capture the key components of vegetative 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.

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.

Monitoring of locatable minerals will be reported based on the inspection and enforcement of operation plans to assure compliance with the Forest Plan.

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 will be reported based on a determination of disturbance, using photographs, on-site inspections, and aerial photographs.

Soil Productivity

The protection of soil productivity will be monitored based on the requirements of 36 CFR 219.12(k)(2). The Forest will use several tools for soil monitoring, including the collection and analysis of core soil samples, erosion modeling, ocular estimates, transects, investigations, and professional judgment. Soil health assessments will be made to determine whether long-term soil productivity is maintained or improved. Management actions and effects will be measured 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 2001

Summary statements, pertaining to the results of monitoring efforts done in Fiscal Year 2001, for each specific resource are presented below. The statements are based on the information presented in Appendix A entitled, "Monitoring & Evaluation Table, Rio Grande National Forest, Fiscal Year 2001."

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 was not available in 2001. Lake, visibility and particulate data is used 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

Watershed disturbances are highest in areas of past timber harvest. 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 are more important criteria in these areas.

"Adequate" to "Robust" stream health is the norm, although the health of some streams has been diminished from management activities. A few streams monitored this year showed impacts from livestock and wildlife grazing. The year before was an extremely dry year and many sources of water that are normally available for animals were not available that year. This condition probably forced animals to concentrate more around available water and probably accounts for a high level of bank disturbance on streams in 2000. Monitoring in 2001 showed great improvement in stream bank stability associated with some of the streams that were identified with problems in 2000. Stream health problems that have been identified will be addressed through annual operating plans or in EAs that are still to be written for those allotments.

Monitoring shows that Wolf Creek Ski Area continues to exceed Forest 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. Highway 160 work has caused impacts to Pass Creek in some cases, such as occurred with overblast of rock during tunnel construction. These impacts were corrected shortly after they occurred. One parking area below the Wolf Creek snowshed continues to deliver sediment into Pass Creek, however, the Ski Area has proposed work in 2002 to correct this problem.

The Twister timber sale had a few mishaps that were described in last year's monitoring and evaluation report and in a separate more comprehensive monitoring report. Standards and guidelines

that were properly implanted were effective in protecting stream health. There were a few instances where S&Gs were not properly implemented and these problems were corrected while the sale was ongoing. Watershed restoration projects are ongoing in 2002 to correct watershed health problems that were identified from that sale.

Other implementation monitoring during 2001 showed compliance with Forest Plan direction in most cases. A couple of instances were encountered where stream bank instability exceeds Forest Plan allowances. These problems are being directed to the appropriate District for corrective actions.

The Forest has been working on three different abandoned mine land reclamation projects that involve improving water quality and health of streams, riparian areas and watersheds. These were described in the 2000 M&E report. We continue to work on the Willow Creek project. Surface water site characterization was nearly completed in 2001 and progress was made on groundwater characterization. Actual mine site characterization should begin in 2002.

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.

One existing population of *Neoparrya lithophila* was evaluated and it appeared to be stable and secure. New populations of *Botrychium echo*, *Draba smithii*, and *Salix arizonica* (all Sensitive plants) were discovered and documented for the Colorado Natural Heritage Database.

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 2001 as follows: 1) *Danthonia parryi*, 2) *Alnus incana* / mesic forb, 3) *Picea pungens* / *Cornus serecea*, 4) and *Pinus ponderosa* / *Festuca arizonica*. Each appeared stable and there were no apparent threats.

Old-growth inventories were completed for several projects within each District's Small Sales program. 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). Most large-scale projects (e.g., timber sales and range AMPs) have been on hold due to the Forest Plan Reversal. Monitoring did not reveal that biodiversity items in 36 CFR 219.12 (k) were in need of change.

The most significant finding this year was the discovery of a new population of Arizona willow (*Salix arizonica*) on the Forest. This is a relatively rare willow species in the southwest and the new discovery in Colorado is a first for the state.

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. Some population level monitoring is conducted on the Forest, but is limited due to prohibitive costs for obtaining statistically sound data. Presence/absence data is collected as funding permits and includes surveys for presence/absence of boreal owl and goshawk at several locations on the Forest.

The Forest is a part of a Statewide effort to monitor population trends for various bird species found within the State. The plots selected will continue to be monitored once a year for the next few years to help determine status and trends for avian species. The survey is conducted by the Rocky Mountain Bird Observatory and includes survey information on black swifts, birds associated with Spruce/Fir forests and TES avian species as directed by the Forest monitoring plan.

The Forest continues to receive monitoring reports from the Colorado Division of Wildlife on peregrine falcons, boreal toads, and bats. Results of monitoring Southwestern Willow Flycatcher habitat continues to be submitted to the US Fish and Wildlife Service.

The Forest continues to conduct monitoring efforts in accordance with the monitoring plan until a revised monitoring plan can be developed in response to the Secretary's discretionary review decision.

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.

Native Rio Grande cutthroat trout (RGN) can be found in 155 streams and 60 lakes and reservoirs on the Forest, totaling approximately 350 stream miles and 1000 surface acres, respectively. RGN populations are divided into three categories based upon genetic purity: core populations ($\geq 99\%$ pure), conservation populations ($\geq 90\%$ pure), and recreation populations (RGN coexisting with nonnative trout species). On the Forest, there are 30 core populations totaling approximately 140 stream miles, 8 conservation populations totaling approximately 64 stream miles, and 77 recreation populations totaling approximately 155 stream miles.

USFS and CDOW personnel monitored seven RGN streams and conducted assessments on two large diverse drainages in FY 2001. Of the seven streams monitored, four populations were classified as "secure and stable", two "at risk and stable", and one "at risk declining" (classification based upon definitions in "Status of Rio Grande Cutthroat Trout in Colorado" Colorado Division of Wildlife 1998). Drainage assessments included habitat analyses, cursory population assessments, genetic analysis of cutthroat trout in the drainages, and identification of potential fish migration barriers and/or potential barrier locations. This data will be used to determine the drainages suitability for RGN reintroduction.

Fishing is a major activity on the RGNF. The Forest offers a variety of fishing opportunities ranging from high mountain lakes and streams to downstream rivers and reservoirs. CDOW maintains an active hatchery program supporting recreational fishing on the forest and stocks a variety of native and desirable nonnative fish species. In an effort to improve fishing opportunities on the Forest, partnerships were developed with local volunteer organizations to construct handicap accessible fishing piers and boardwalks at one high use recreation area on the Divide District and on the Conejos Peak District, in-stream structures were installed in the Conejos River to improve overwintering fish habitat to help sustain sport fishing with limited hatchery stockings.

The information available suggests that the Revised Forest Plan Direction, Desired Conditions, Standards, and Guidelines are effective in protecting biodiversity, in terms of the fisheries resource. However, this should continue to be evaluated. Continued monitoring will allow FS biologists to assess the need for changes, 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 2001, 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, treatment planned, and/or treatment implemented. Where treatments were implemented, results were favorable. 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) may need to address the potential conflict between what is the best silvicultural treatment and what will truly reduce the crown fire initiation and spread risk.

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. An amendment 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

Meeting the intent of the National Health and Safety Codes and Occupational Safety and Health Administration guidelines was met based on monitoring.

State of the Resource: Heritage Resources

The Forest made good progress in conducting the Heritage Resource monitoring called for in the FY 2001 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 2001 indicates that projects with the potential to impact Heritage Resources are being inventoried and protective measures are adequate.

The Tribal Consultation Bulletin (TCB) 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 3 weeks after the mailing of the Bulletin.

State of the Resource: Minerals

The minerals monitoring program requires us to validate leasing activities as well as standards and guidelines. Only one lease application was processed and prepared for leasing by the BLM in 2001. Nine other lease applications are being withheld pending appropriate analysis for the Lynx. There were no major proposals in the locatable minerals program. In the common variety mineral 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 FY 2001. Those species, which appear to have increased or have been inventoried more thoroughly, are yellow 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.

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 FY2001 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.

State of the Resource: Recreation

Developed Recreation

Developed Sites:

Results of the National Visitor Use Monitoring results for the Rio Grande National Forest were made available in August of 2001. There were 1.3 million visits to the forest in FY2000 and of the people interviewed, about 9% were not recreating, 2.1% were working, 4.8% were passing through the forest and 1.7% had some other reason to be on the forest. About 91% of those interviewed said their primary purpose on the forest was to recreate. For further details regarding the Forest's visitor use monitoring report, they can be found on the web at <http://www.fs.fed.us/recreation/recuse/recuse.shtml>.

The Forest accomplished the following deferred maintenance projects in FY01: Forest-wide toilet replacement work (2 toilets at Buffalo Creek CG, 2 toilets at Poso CG and PA, 2 toilets at Park Creek CG and 2 toilets in the lower loop of Aspen Glade CC). The Aspen Glade CG rehabilitation project was awarded in October, 2001 and will be completed during the 2002 season. The Squaw Creek trail bridge contract was awarded in September of 2001 and the deteriorating bridge was removed. This bridge contract will be completed during the early 2002 field season. Continental Divide trail work included: installation of trail markers on segments of the trail on the Conejos Peak RD, Divide RD and

Saguache RD; spring protection and improvement work in the Bonito-Silver Springs area and trail reconstruction work in the Elwood Pass and Table Mtn areas.

Ski Area:

The Wolf Creek Ski Area continues to do improvement work on its facilities and ski terrain. Improvement work included: a winter cross country ski trail was constructed; the upper parking lot was paved including a concrete retaining wall; clean up of deadfall along numerous ski trails including the area's glade skiing terrain; completion of the Simpatico, Coyote and Posey ski trails; upgrade of the ski area's sewer plant to meet State standards; survey, stacking and work (tree and rock removal) on about 25% of the new access road and tranquility parking area; planting of large trees (15 ft) with a tree spade was done around the ski area parking lots and in some of its glade skiing terrain and removal of 50 hazard trees along various lift lines and ski trails.

Special Uses:

Term special use permits that came up for renewal in FY01 were re-issued . Compliance reviews and audits were completed on 13% of the forests special use permits. SUDS was updated to include annual billings and issuance of special use permits and conditions.

Meaningful Measures:

The Forest continued its deferred maintenance inventories for recreation buildings and water systems in FY01. This information was inputted into the Infra database.

Dispersed Recreation

Trails: Deferred maintenance inventories were completed on 20% of the Forest's system trails. Inventories were done on 243.03 miles of Forest trails including 58% on the Divide RD, 42% on the Saguache RD. The information was placed in electronic trail folders, summarized on the MM trail inventory forms, and given to each District for input into the District MM database.

Travel Management:

Travel management remains a big challenge both in educating Forest users and in funding personnel to administer the program, especially during the hunting season. Errors remain in our Forest's travel map and corresponding Forest Plan Alternative G map and in the Infrastructure section of the FEIS. Work is needed to clean up and correct these errors.

Unroaded Areas

The recreation recommendation included in the Twister Timber Sale monitoring report associated with the Snowshoe Backcountry were addressed and implemented in FY01. The non-motorized trail (Carson to Cataract Lake) in the upper area of the Pole Mtn/Finger Mesa backcountry area was checked in August to assess trail conditions and whether any motorized use was occurring on the trail. A inspection report is on file at the Supervisor's office.

Representative Diane DeGett continues to work on a wilderness bill that includes the Pole Mtn/Finger Mesa area (Handies Peak) for inclusion into the national wilderness preservation system.

The Roadless Area Conservation Initiative, Final EIS and final rule (36 CFR Part 294 – Special Areas: Roadless Area Conservation) was published in the Federal Register on January 12, 2001. The final rule was to take effect on March 13, 2001, but remains delayed. Depending upon the final rule direction, the Forest Plan and Unroaded section of the Forest Plan FEIS may have to be amended to incorporate the final rule direction.

Wild and Scenic Rivers

There was no assessment of a Wild and Scenic corridor done in FY01.

Wilderness

Baseline monitoring of campsite conditions, campsite density, trail encounters, large group encounters, dogs under control and meadow health were done in compartments within the Sangre de Cristo wilderness and a few more compartments in the Weminuch and South San Juan wilderness areas. Monitoring results shows a majority of the management-area standards are being met. In a few incidences where monitoring shows that standards have been exceeded (campsite conditions, camp density), the wilderness team will need to assess if the next level of management action will be implemented.

With the enactment of P.L 106-530, the Great Sand Dunes National Park and Preserve Act, a SIR needs to be written that addresses the changes to the Wilderness write-up section of the Forest Plan FEIS in addition to the map correction changes to the Alternative G and Forest Travel maps. The Secretary affirmed the Chief's decision regarding Wilderness fish stocking. The Chief indicated the Forest should issue an errata sheet regarding wilderness fish stocking. An errata sheet is not needed since a plan amendment to implement the wilderness management direction (including wilderness fish stocking) was signed in 8/98. The Forest needs to document this decision and complete a BA/BE covering the wilderness areas on the Forest

State of the Resource: Research and Information Needs

Progress is continuing on 1) watershed inventories for old growth in conjunction with proposed timber harvest activities; 2) Forest roads inventories; 3) collection of floral and faunal occurrence data for inclusion in the Colorado Natural Heritage Program Biological Database.

State of the Resource: Research Natural Areas (RNAs)

The Hot Creek RNA was visited and visually evaluated. It appears to be receiving very low use and is being minimally impacted by humans. Natural processes are the prevailing influence in this RNA. There was no evidence of any conflict with 36 CFR 219.12 (k). No changes in management direction are needed.

State of the Resource: Road Construction, Closures, and Decommissioning

No planned timber sale road closures were conducted in FY 2001. Twenty-two and one half miles of unclassified road decommissioning was accomplished in FY 2001.

State of the Resource: Scenic Resources

Three areas were monitored for Scenic Resources compliance during FY2001. Under the terms of the Scenic Resources, all areas have two years after project implementation to comply with Scenic Integrity Objectives. 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 soil resource of the Rio Grande National Forest is carefully monitored through project work and soil health assessments. In FY 2001 numerous soil health assessments were completed on rangeland, timber sales, and burned areas.

The Twister Timber Sale area, logged in 1998 and 1999 had soil compaction concerns from the logging that required mitigation. The Forest purchased a specially-designed implement to reduce soil compaction called a winged subsoiler. This state-of-the-art implement will restore soil densities to productive capacity. Work was begun in the 2001 field season and will continue into the 2002 field season.

Three burned areas were monitored as part of ongoing monitoring to measure ecosystem and soil recovery. The Marshal Gulch fire was a prescribed natural fire on a steep slope in the Sangre de Cristo Mountains. After going through an “at-risk” soil health rating since the 1996 burn, the soil conditions improved into “Properly Functioning Condition” status. The Spanish Creek Escape Fire, burned in 1995 also passed from “at-risk” to “Properly Functioning Condition” status.

The Treasure Trove bioremediation project was monitored. This project used livestock to re-supply a mined site with organic matter. Livestock were fed weed-free hay in the summer of 2000. Results show a positive relationship with increasing organic matter. Vegetation has responded, is rich with nitrogen, and more vigorous than adjacent undisturbed plant species. The method holds some promise for other similar reclamation needs.

Over the entire Forest, soils remain properly functioning with only few exceptions. The Forest Plan provides the necessary protections for soil health and is in no need of revision.

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 influences. There was no evidence of any conflict with 36 CFR 219.12 (k). No changes in management direction are needed. The Devil’s Hole Special Interest Area, designated because of its geological and scenic qualities, was monitored in the summer of 2001. Access remains cross-country, as no trail exists. The Devil’s Hole SIA remains natural appearing and non-motorized. Livestock presence was not noted. Based on the monitoring of Devil’s Hole SIA there is no evidence of any conflict with 36 CFR 219.12 (k). Changes in management direction are not needed.

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 and fall of 2000-2001 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 spruce-fir forests, the most common and most actively managed forest cover type on the Rio Grande has resulted in ample stocking. In 2001 approximately 1783 acres were surveyed and certified as meeting regeneration requirements. Specific areas that have not regenerated to meet minimum stocking standards were planted in the late summer of 2000 had survival surveys completed in 2001 are as follows:

- **The Royal Pain Fire (within the Royal Park Timber Sale).** A wildfire began in or near the then active timber sale. Logging slash burned extremely hot and the existing advanced regeneration was destroyed. This area was planted in 2000. Survival surveys accomplished during the 2001 field season show that planted seedlings have survived the first year. Third and fifth year surveys are scheduled for these areas.
- **Grouse Timber Sale.** Some patch clearcuts in this former timber sale are not expected to regenerate fully. This area was planted in 1999 and 2000. Survival surveys accomplished during the 2001 field season show that planted seedlings have survived the first year. Third and fifth year surveys are scheduled for these areas.

The Twister blow-down on the Divide Ranger District has created a need for restocking. 300 acres of the area is planned for planting over three years, beginning in FY 2002. Mechanical Site Preparation for planting/ reforestation was planned on 75 acres during the 2001 field season. However, due to mechanical problems, most of those acres were not treated. It is planned to be accomplished during the summer of 2002 as well as planting.

Timber Suitability

The Forest amended the Revised Forest Plan in the year 2000. The suitability amendment will take effect after appropriate consultation with the US Fish and Wildlife Service regarding species viability.

Insect and Disease Infestations

There remains a potential for future spruce beetle infestations of high endemic or epidemic proportions in some former and/or future timber sale areas. Over the last 5 years, Forest Service entomologists have observed increasing populations of spruce beetle, and associated killing of overstory spruce, in the Cliff, Grouse, and Twister Timber Sale areas and also in the vicinity of Trujillo Meadows, Cornwall Mountain, and Shaw Lake. Attempts to actively manage spruce beetle infestation in the Grouse Timber Sale area have been postponed but are scheduled to begin in 2002. The Grouse area is still a high-risk area for spread of the spruce beetle.

New spruce blow-down was found in the Cliff Timber Sale area. Surveys during the summer of 2001 identified infested trees that were hand treated by removing bark. Surveys and hand treatment will continue in 2002.

Monitoring of spruce beetle in the Twister Timber Sale during the field season of 2001 consisted of two major activities: pheromone trapping and walk-through surveys. In addition, hand treatment of some of the on-site infested material was accomplished. Based on the monitoring and continued work within the Twister area it appears that the Twister site is at a critical juncture. Continued support of monitoring and management of the spruce beetle population is critical to maintain an endemic population of spruce beetle within the area.

Western spruce budworm (WSB) populations are at high endemic levels but a considerable decline in numbers has been observed in many of the Forest's mixed-conifer stands.

Douglas-fir beetle has been observed and is increasing on the Saguache District in Douglas-fir stands that were heavily infested with WSB. This is an expected event given the widespread WSB infestation.

Mountain Pine Beetle has moved into the Ponderosa Pine and some lodgepole pine stands, most noticeably in the northern portion of the Saguache Ranger District. In 2001 approximately 6550 acres of timbered stands within the Cochetopa Hills area were inventoried using CSE protocols. In 2002, continued examination of the existing condition is planned. Since a majority of the infected stands fall within the proposed Cochetopa Hills and Poncha Pass Lynx Corridors direction for management in this area hinges on comprehensive plans for the Lynx Corridors. However, firewood gathering has increased considerably within these stands due to the easy accessibility and large groups of standing dead trees. Timber personnel signed approximately 200 standing dead trees to protect them as wildlife trees.

Western Gall Rust was also observed in circa 1980 roller-chopped lodgepole pine stands on the Saguache Ranger District. This rust is girdling small diameter lodgepole pine. Intensity and area affected are unknown at this time.

Harvest Openings

Harvest openings from recent, current, 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. An exception to this is the Twister Timber Sale(s) arising from the Fisher Mountain blowdown. This exception is authorized under 36 CFR 219.27(d)(2)(iii).

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 2001 are displayed in the table below:

Item	Measure	Planned	Accomplished	% Accomplishment
Reforestation/Planting	Acres	217	217	100%
Reforestation Surveys	Acres	2567	2567	100%
Timber Volume Offer	CCF	14000	16800	120%

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.

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).

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APPENDIX A
Monitoring and Evaluation Table
Rio Grande National Forest
Fiscal Year 2001

This appendix synthesizes the monitoring actions and results for fiscal year 2001. The monitoring items listed below correspond with the components listed in Table V-1 from the 1996 revised 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 to 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. Data has been documenting that visibility and particulate levels are among the best in the country. Data collected in 2001, although not fully analyzed yet, appears to still support that conclusion.	No changes in the Forest Plan needed.
	(2) Chemistry of most sensitive lakes. (K. Garcia, J. Fairchild, S. Hall, L. Dobson)	Three lakes in the Weminuche WA; 2 in the S. San Juan WA; 2 in the La Garita WA; and 2 in the Sangre de Cristo WA.	Funding was not available for monitoring in 2001	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, FY00 or FY01.	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.	Prescribed burning was accomplished 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 to 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: Range Allotments:	Large timber sale and range AMPs EAs are on hold while the Forest completes Forest Plan Reversal work, so there were no new watershed assessments. Watershed disturbance levels were reviewed as part of several small timber sales that relied on a programmatic EA. These small sales include: Massey Gulch fuelwood, Spruce Hole blowdown, Black Mountain blowdown, Bristol blowdown, Eagle Mountain firewood, Rock Creek blowdown.	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)	No new EAs were written, however several streams were evaluated as part of project assessments, including: Willow Creek and tribs., Miners Cr., Pass Cr., La Garita Cr., Beaver Cr., Sheep Cr. Trib., La Manga Cr. Also w/ BLM – Lone Tree Cr., Antelope Cr., Poison Gulch., Ford Cr., Tuttle Cr., and Cross Cr.	Stream health was not assessed as rigorously in most cases as it would be, if the project were part of an EA. Visual observations verified that streams within small timber sale areas were healthy and would be avoided by new harvest activities. Pass Creek continues to be fully protected from Wolf Creek Ski Area activities and mostly protected from highway 160 reconstruction activities. Pass Creek was impacted by overblast during highway 160 tunnel construction. The FS, DOW and CDOT worked together to reclaim the stream. A parking area below the Wolf Creek snowshed continues to put sediment into the Pass Creek. The Ski Area is proposing work to minimize these impacts. La Garita Creek was evaluated for impacts from a trail crossing that was constructed the year before. Recommendations were made to correct some floodplain impacts. La Manga Creek was evaluated for the best cross-fence location to result in the fewest impacts and best overall range condition. Most BLM streams evaluated were very healthy. Poison Gulch had recovered fully from prior year livestock impacts caused by trespass. Antelope Creek continues to get excessive bank impact from hoof shear and this is being dealt with through the AMP EA.	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 to the Plan?)
			East and West Willow Creeks and Windy Gulch were monitored in great detail as part of the Willow Creek mined land reclamation project. The Forest is participating with the Willow Creek Rec. Steering committee. Monitoring in 2001 focused on surface water quality. Problems will be coorelated with specific mine sites as work continues.	
	(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)	Kitty Cr., North Fork Saguache Cr., Crooked Cr., and Rock Cr.	North Fork Saguache Creek has had highly altered stream banks in some segments. Exclosures have been constructed to allow measurement of stream health with and without livestock and wildlife grazing. Bank stability is improving in the elk and cow exclosures, and in the reference reach with livestock grazing. Exclosures show that elk have been impacting willow growth. Kitty Creek continues to get high bank alteration near the headcut control structure and the structure is now in jeopardy. Crooked Creek stability continues to improve with recent reclamation and maintenance. Rock Creek shows substantial improvement in bank stability and substrate conditions from what existed after past timber harvest. Recent fuelwood harvest close to the creek has been avoided.	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 FY2001.	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.	South Decker Cr., Dorsey Creek, Short Cr., Upper Aspen Cr., W. Frisco Cr., and Bear Creek were all evaluated to assess compliance with Forest Plan direction. S.Decker and Dorsey Creeks have recovered from livestock and wildlife impacts from the year before. Short Creek remains in excellent condition. Upper Aspen and West Frisco Creeks continue to get excessive bank alteration	Aquatic S&Gs: 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 to the Plan?)
			from hoof impact. Bear Creek has been impacted by the abandoned mine above Kite lake and by natural mineral sources.	
Biodiversity				
Monitor change in occurrence of selected native species (Fine Filter). 36 CFR 219.27 and .19 (6)	(1) Ripley milkvetch -- use plots and transects. (CSU Ph.D. Candidate: J. Burt; Ecologist: D. Erhard)	Hick's Canyon and Terrace Reservoir	Intensive plot monitoring completed by researcher J. Burt in her study areas. Data collection and evaluation 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 <i>Astragalus ripleyi</i> 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.	No changes recommended in the Forest Plan. Based on the results of this study, the Forest has decided to end intensive monitoring of this species.
	(2) Native Fish Population Monitoring. (Fish Biologist: Sue Swift-Miller; FS Seasonal employees; DOW)	Cañon Verde, Treasure Creek, North Fork Carnero Cr., East Pass Cr., Archuleta Cr., West Fork Chama River, Bennett Cr., MF & NF Carnero Cr., Cave Cr., Rhodes Gulch, Rough Canyon, Wolf Cr., Conejos River, Tucker Ponds Alder Cr., West Fork; Bear Cr.; Benito Cr.; Carnero Cr., South Fork; Cascade Cr.; Cave Cr.; Cross Cr.; Deep Cr.; Jack's Cr.; John's Cr.; Osier Cr.; Rhodes Gulch; Rock Cr., South Fork; Torsido Cr.; Tuttle Cr.; Wannamaker Cr.	Two large diverse drainages were evaluated to determine their suitability for Rio Grande cutthroat trout reintroduction. Habitat evaluations, cursory population assessments, and genetic sampling were conducted in the Cañon Verde and Treasure Creek drainages. RGCT and Rio Grande sucker were protected from sedimentation from road runoff by rerouting and reconstructing Forest Road 680. Completed project on East Pass Creek to minimize highway related erosion by re-routing flows, installing drainage and control structures within the highway ROW and reclaiming gullies associated with road runoff. Assisted CDOW with stocking RGCT into Archuleta Creek and the West Fork of the Chama River. USFS and DOW personnel monitored seven RGN populations, approximately 40 stream miles, on the Rio Grande National Forest. Stream improvements were completed on the Conejos River to improve overwintering habitat. Board-walks and fishing piers were installed at Tucker Ponds to improve handicap access. RGCT tissue were submitted to the University of Montana for genetic analysis from eleven streams in 2001. Threats to RGN populations include non-native trout and insufficient habitat (quality and quantity). Habitat and population assessment work is ongoing, and the USFS and CDOW are working together to address these threats, through habitat improvement projects, barrier	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 to the Plan?)
			<p>repair/construction, and reclamation work.</p> <p>USFS and DOW personnel monitored eleven historic and five transplanted populations of Rio Grande cutthroat trout (RGN) on the Rio Grande National Forest in 2000. Two additional historic populations on private property were also monitored. For the 18 sites that were monitored, population status was identified as follows: 7 sites data not yet analyzed, 2 populations "secure-expanding", 3 populations "secure-stable", 2 populations "at risk-stable", 1 population "at risk-declining", and 3 populations are presumed extirpated.</p> <p>Threats to populations include non-native trout and insufficient habitat. Of the 18 RGN populations sampled in 2000, non-natives were present in 11 populations. Two of the three sites where RGN was extirpated now host non-native trout fisheries; one supports no fish. Habitat and population assessment work is ongoing, and the USFS and CDOW are working together to address these threats, through habitat improvement projects, barrier repair/construction, and reclamation work. The CDOW established two new management populations of RGN in Forest lakes during 2000.</p> <p>Rio Grande sucker populations were monitored in Cascade Creek and Osier Creek (both are transplanted populations). Only 2 suckers were captured in Cascade Creek and none in Osier Creek. Status of both populations is considered unknown at this time, and additional assessment work is needed. However, evidence of reproduction of Rio Grande sucker was documented at Medano Creek (also a transplanted population).</p>	
	(3) Boreal Toad – Monitoring and Survey (DOW/FS)	Four known sites were monitored in Mineral and Hinsdale Counties. Surveys were completed at 14 sites in Rio Grande, Mineral, Hinsdale and Conejos Counties.	Two of the four monitor sites had successful reproduction. Two adult toads were found as the result of surveys near Love Lake and Jumper Ck. Other amphibian locations including chorus frogs and tiger salamanders were recorded.	No changes in the Forest Plan needed.

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	(4) Peregrine falcon - Ocular surveys of nests. (DOW Peregrine crew)	Four known nest sites. One on Divide and 3 on Conejos Peak.	Four nest sites were monitored: Information regarding nesting success can be obtained from the CDOW.	No changes in the Forest Plan needed .
	(5) SW Willow Flycatcher	Identified habitats on the Forest (CP District)	Habitat monitoring conducted by Range staff; sites are managed in accordance with USFWS mitigation requirements.	No changes in the Forest Plan needed
	(6) Black swift - surveys of nests. (Schultz)	RGNF sites included in the state-wide MCB survey.	2001 MCB report surveyed 165 waterfalls state-wide and discovered 24 new colonies.	No changes in the Forest Plan needed .
	(7) Additional - Boreal owl – owl and nest box surveys (Schultz)	Established owl survey route near Trout Mtn and 100 boxes along Trout Mtn Rd and 50 boxes in the Blowout Pass area.	No evidence of nesting owls was detected in the nest boxes. One owl was located during the fall survey route near Trout Mountain.	No changes in the Forest Plan needed.
	(8) Bats – Surveys of mine sites. (Navo, DOW)	1) Willow Creek and Alamosa Creek Mine Closures. 2) Terrace/Bonanza and Holy Moses Mine Closures.	1) 48 sites were surveyed and evaluated: 41 sites had poor or no habitat available and were recommended to be dropped from future surveys; 4 sites had no use; 1 site had no significant use; 1 site was recommended for a bat gate; 1 site had numerous <i>Myotis volans</i> in the area but no documented use of the mine. Most of these surveyed sites are in the process of being closed based upon survey results 2) Surveys of the mine openings have been conducted to determine bat use and recommend type of closure necessary ie. no bat concern vs bat gate needed.	No changes in the Forest Plan needed.
	(9) Birds associated with Spruce/Fir Forests (Schultz)	RGNF sites included in the state-wide MCB survey.	2001 MCB survey reports 27 transects in Spruce/Fir with 59 species detected.	No changes in the Forest Plan needed
Monitor the change in selected species habitat (Coarse Filter). 36 CFR 219.27.	(1) Other EIS special-status plants. Photo interp., site visits, GIS, satellite imagery. (Ecologist: D. Erhard)	Special-status plants are at various sites over the Forest.	Visited one of the known <i>Neoparrya lithophila</i> populations and it appeared to be stable and secure. New populations of <i>Botrychium echo</i> , <i>Draba smithii</i> , and <i>Salix arizonica</i> (Sensitive plants) were discovered and documented for the CNHP database.	No changes in the Forest Plan needed.
	(2) Snag-dependent species - aerial mapping of current insect, disease, and fire events. (Wildlife biologist)	Forest-wide	No analysis initiated this year; surveys scheduled every 3 years. Yearly flights by the Gunnison Research Station are completed to help identify disease, bug and defoliation problem areas.	No changes in the Forest Plan needed.
	(3) Animals listed in the EIS – T&E and Sensitive animals. (Wildlife Biologist)	Forest-wide	Surveys were conducted for the Canada lynx by CDOW and by the US FWS for Uncompahgre Fritillary Butterfly.	No changes in the Forest Plan needed.
Monitor changes in	Photo interp, GIS, satellite	All Landtype	No monitoring required this year because it is too soon to	No changes in the Forest Plan

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composition, structure, and pattern for each Landtype Association. 36 CFR 219.27.	imagery, and/or spatial analysis. (Ecologist/Wildlife Biologist)	Associations over the entire Forest.	detect any meaningful changes. We anticipate monitoring this item in year 2006.	recommended.
Validate the vegetative composition and structure of LTA 1 reference landscapes. 36 CFR 219.27.	Photo interp, 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 in Dolores 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 interp, site visits, GIS, and/or satellite imagery. (Ecologist: D.Erhard)	Special-status plant communities are at various sites over the entire Forest.	Visited several CNHP documented plant communities as follows: 1) <i>Danthonia parryi</i> , 2) <i>Alnus incana</i> / mesic forb, 3) <i>Picea pungens</i> / <i>Cornus serecea</i> , 4) and <i>Pinus ponderosa</i> / <i>Festuca arizonica</i> . Each appeared stable and there were no apparent threats.	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 several projects within each District's Small Sales program. These included: Massey Gulch fuelwood, Spruce Hole blowdown, Black Mountain blowdown, Bristol blowdown, Eagle Mountain firewood, Rock Creek blowdown, and Wolf Mountain hydro-ax. To date, old growth (Mehl 1992) remains uncommon. On the Divide and Conejos Peak RDs, 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 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. (D. Erhard, District wildlife biologist, Sue Swift-Miller)	Forestwide.	The Ecologist visited more than 20% of the Forest's on-going projects (site visits made due to writing project-level plant BEs). Most large-scale projects (e.g., timber sales and range AMPs) have been on hold due to the Forest Plan Reversal. Monitoring did not reveal that biodiversity and/or wildlife items in 36 CFR 219.12 (k) were in need of change.	No changes in the Forest Plan recommended.
Fire and Fuels Management				

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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. (FMO, 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) have been implemented. Due to some additional project planning constraints, plus insufficient staffing, only half of the projected implementation acres were completed, predominantly in the Cochetopa Hills area. WUI project planning was also initiated in Crestone, Zapata, and South Fork areas.	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 bridges, all high-hazard dams, 33% of medium-hazard dams, 20% of low-hazard dams, 25% of all trail bridges, all drinking-water systems as required by the Safe Drinking Water Act, all facilities and all Level 3, 4, and 5 roads.	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. All water systems were sampled and tested in accordance with the Safe Drinking Water Act; 50% of the facilities were inspected; and all of the Level 3, 4, and 5 roads were maintained and inspected.	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, constituent surveys, 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 2000. Twenty-six miles of unclassified road decommissioning was accomplished in FY 2000.	No Forest Plan changes needed.
M & E Infrastructure relative to: 36 CFR 219.12 (k).	Review and monitor infrastructure-related inspections and reports for compliance with Forest Plan Guidelines and Objectives. (Forest Engineer)	As outlined in the Infrastructure section of the AMOP.	The Forest Engineer reviewed the infrastructure monitoring that occurred in FY 2000 to determine if any changes were needed relative to 36 CFR 219.12 (k).	No changes in the Forest Plan recommended.

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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.	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: National Register-eligible heritage resources identified for protection from project activities and selected highly significant heritage resources. Review project EAs for Tribal Consultation requirements. (Heritage Specialist: V. Spero)	Heritage resources located on range allotments, past timber sales, prescribed fire projects, historic buildings, rock art, and prehistoric stone structures.	Monitored were: 5 prehistoric open lithic sites on the North Park Prescribed Burn project, 11 cultural sites on the Martinez/Underwood Allotment, 2 open lithic sites on the Table Timber Sale project, site 5RN330, the Big Bird petroglyph, as-yet unrecorded stone structures near Creede, and 5RN323 the Sentinel Mountain Stone Fortification. Historic buildings or facilities monitored included: the Clay Mine Site, Off Cow Camp, Fitton Guard Station, Alder Guard Station, Alamosa Ranger Station, and the Rock Creek Ranger Station. All prehistoric heritage resources monitored were reported to be in good condition. All historic structures monitored were experiencing some form of weathering of varying degrees.	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 culturally sensitive to American Indians.	Tribal Consultation Bulletins (TCBs) were issued in February 2001 and in October 2001 for the following project proposals (TCB 02/01): the Natural Arch Prescribed Burn, the Rito Hondo Understory Prescribed Burn, the Schilling Spring Prescribed Burn Project, and the Wolf Mountain Prescribed Burn (TCB 10/01): the Watershed Improvement Environmental Analysis, the Proposed Pragmatic Agreement Among the Colorado Historic Preservation Office and the Forest Service Rocky Mountain Region regarding the Implementation of the Prescribed Fire Program, and the Rio Oxbow Land Exchange. The TCB includes project proposals and programs that have areas with the potential to be considered culturally sensitive to American Indians. Tribal Consultation is also initiated by project "Scoping" letters and by the the RGNF Quarterly Scoping Document (SOPA).	No changes to the Forest Plan are needed. The Tribal Consultation Bulletin (TCB) should continue to 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 affect areas that are culturally sensitive to consulted American Indian Tribes. Additional follow-up, including phone calls to arrange visits to project areas, should be increased.
M & E Heritage	Review of all Heritage	Review of all Heritage	Reports for proposed projects sent to the Colorado State	No changes needed in the Forest

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Resource program relative to 36 CFR 219.12 (k).	Resource Reports done in FY 2001. (Heritage Specialist: V. Spero)	Resource Reports done in FY 2001.	Historic Preservation Officer for concurrence were reviewed.	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 2001. The Forest Plan reasonable and foreseeable development scenario and its effects 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.	One lease was validated and had lease stipulations applied. Because leases have no impact to the land themselves, the Forest Plan forecast of activity is still valid.	No changes needed.
M & E Minerals program relative to 36 CFR 219.12 (k).	On-site inspections of mineral activities; review reports. (Minerals specialist)	Forest Summary.	There are some errata on the oil and gas leasing map. These need to be corrected and noted. The Clear Creek pit needs to be analyzed and corrected to meet Forest Plan Standards. The Pinos Creek pit needs to be 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.	Forestwide inventories were conducted on all three Ranger Districts in 2001. Specific information on species found and areas infested and treated/inventoried can be found in Ranger District records. Acres treated by chemical means on the Forest was 652. A total of 75 acres were treated with biological agents. Approximately 5 acres were treated by hand pulling.	No changes needed in the Forest 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.		

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M & E Rangeland seral stage to ensure the Desired Conditions.	(1) Various methods and techniques will be derived from RAMTG. MAR Target # 76.1. (Primary: G. Poe; Secondary: G. Snell, T. Post)	Cumbres, Conejos Canyon, Sulfur,	Aproximately 30960 acres were identified and 137 cover frequency transects installed on the Forest.	No changes needed in the Forest Plan.
	(2) Monitor Desired Condition transects for trend. (Primary: G. Poe; Secondary: G. Snell, T. Post)	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. Poe; Secondary: G. Snell, T. Post)	Rangeland suitability determination was part of the Forest Plan reversal. New suitability determination has been calculated using Region 2 protocol.	New rangeland suitability determinations will be initiated once the Plan reversal is settled.	No changes needed in the Forest Plan.
	(2) Evaluate suitability of rangelands at the AMP level. (Primary Contact: G. Poe; Secondary: G. Snell, T. Post)	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. MAR target #75.1. (Primary Contact: G. Poe; Secondary: G. Snell, K. Garcia, T. Post, T. Post)	Conejos Peak:Cumbres, Conejos Canyon, Bancos, La Jara, Glacier, Saddle Creek, Roaring Fork, Twin Lakes, Jarosa, Jarosa-Mesa, Jim Creek Mesa. Divide Ranger District:, Decker, , Embargo, Rock Creek, Cattle Mountain, Canon, Church, La Garita, Cross/Race, Handkerchief Mesa, Park, Crooked Creek, Sulphur, Blue Park. Alder, West Pinos, East Pinos, Frisco, Shaw. Saguache Ranger District:,	Monitoring for vegetation utilization was conducted on all three Ranger Districts. About 629,390 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.

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		Carnero, Cottonwood, Mill Creek, Saguache Park, Houselog		
Recreation – Developed Recreation				
Assess developed sites for a) visitor expectations, trends, and customer satisfaction; and b) quality and safe facilities.	(1) Customer Survey. Forestwide Market and Customer Survey. (Forest and District Recreational Personnel)	Forestwide.	There were no forestwide customer surveys done in FY01. Results of the forestwide customer survey done on the Forest in FY00 were compiled and released last August. Some highlights of the survey indicated the forest received 1.3 million visits, with 80.2% who visited the forest were ethnically white, 19.4% were Hispanic and 11.2% were from other countries. Sixty percent of those visiting the forest said they visited other places besides the forest while 40% indicated the forest was the only place they planned to visit. Top recreation activities were: viewing scenery, viewing wildlife and nature, driving for pleasure, hiking/walking and bicycling. For more detailed information from the survey, it is on the website at http://www.fs.fed.us/recreation/recuse/recuse.shtml . The next scheduled forestwide customer survey is scheduled to take place in fiscal year 2004.	The report recommended the forest work with economists in the area or region to obtain a better analysis of the economic spending and impacts. No changes needed in the Forest Plan.
	(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 are completed as part of the sites' pre-season maintenance inspections. Hazard trees have been marked and removed. Hazard tree inspection reports are on file at Ranger District offices. Pre-season inspections are working well and will continue.	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. (J. Flaget)	Wolf Creek Ski Area.	FY 2001 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, and annual billings and payments. It also included the issuance of a cross country ski trail permit and the monitoring of the cross country trail development and winter use. Summer activities included completing a decision document for the paving and installation of a concrete retaining wall of the ski area's upper parking lot. Clean up of deadfall along its ski trails and skiable tree terrain. Completion of the Simpatico, Coyete and Posey ski trails. Upgrade of the	Continue to work with the ski area in conjunction with planned projects and updating its master development plan. No other changes in the Forest Plan are needed.

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			ski area's sewer plant to meet State standards. The access road and tranquility parking lot were surveyed, staked and approximately 25% of the trees and rock removed. Continuation of this project is planned in FY02. Planting of large trees (15 ft) with a tree spade was done around the ski area parking lots and in some of its glade skiing terrain. And 50 hazard trees were removed along various lift lines and ski trails.	
	(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 completed the necessary assessment work and re-issuance of various term special use permits Compliance reviews and audits were completed on 13% of the forests special use permits. SUDS was updated to include annual billing and issuance of special use permits and conditions. The Forest will continue to monitor its special use permits in FY02.	No changes in Forest Plan 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	Visitor use in the Forest campgrounds was recorded by our concession campground mgrs. Use reports on file at the RGNF Supervisors Office Use and revenues were down about 2% last season in comparison to the FY00 campground use and revenues.	No Forest Plan changes needed.
Evaluate developed recreation relative to 36 CFR 219.12 (k).	Comparative evaluation for M&E Report. (Forest and District Recreation Personnel)	Forestwide Developed-Recreation Prescription Areas.	Forest Recreation Objectives, Forestwide Standards, recreation Management-Area allocations, Desired Conditions, Standards and Guidelines, and Monitoring Items were assessed in conjunction with scheduled projects environmental assessments.	No Forest Plan changes needed.
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. Dispersed-campsite inventories throughout the Forest.	Deferred mtce trail inventories were completed on 20% of the Forest's trails (243.03 miles) in FY01. Of the trail miles inventoried, 140.87 miles (58%) were completed on the Divide RD and 102.16 miles (42%) were completed on the Saguache RD. Sixty percent of the Forest's system trails have been inventoried to date. Some noted deficiencies included lack of or repair of trail signs, lack of trail maintenance on portions of trails and need for trail reconstruction work on certain trail segments. Trail inventory records are on file at the RGNF Supervisor's Office and Ranger District Offices. Another 20% of the Forest's system trails is scheduled to be done in FY02.	No change in the Forest Plan is needed.
	(2) Monitor representative watersheds to assess baseline capacity allocation. Monitor the amount of public and Outfitter	Forestwide institutional-use permits.	No specific area was monitored in FY01 to assess the baseline allocation capacity.	No Forest Plan changes are needed.

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	Guide use occurring in identified watersheds. (Forest and District Rec. Personnel/RSST)			
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 Rec Specialist/RSST)	Hunter patrols during hunting season.	Hunter patrols indicate we are getting better compliance by hunters with the Forest's travel management regulations. Problem areas still exist and there is a need to continue monitoring of off-road vehicle use. We continue to note corrections needed in our travel management map to reflect on-the ground conditions. In December, 2001, the Divide RD began the process of forming a task force to discuss issues related to the winter recreation activities in the Wolf Creek Pass area. Meeting are planned during the winter months of 2002 to address the various issues and formulating recommendations for the Forest Service to consider in managing the winter dispersed recreation use in this area.	There is a need to revise the Forest's travel management map and regulations in FY02. No other changes in Forest Plan needed.
Evaluate Dispersed Recreation relative to 36 CFR 219.12 (k).	Comparative evaluation for M&E Report. (Forest and District Rec Personnel)	Forestwide Dispersed Rx Areas.	Forest dispersed-recreation Objectives, Forestwide and Management-area Standards and Guidelines, Desired Conditions, and Monitoring Items were assessed in conjunction with scheduled project environmental assessments..	No Forest Plan changes needed.
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)	Snowshoe Mtn and Pole Mtn/Finger Mesa	The recreation recommendation included in the Twister Timber Sale monitoring report associated with the Snowshoe Backcountry were addressed and implemented in FY01. An allotment pasture fence was constructed along the saddle area which makes it difficult for motorized vehicle to access the backcountry area. Car and horse trailer parking is now available near the trail. The trail has been signed open to foot and horse use only and work was done on the section of trail (skid trail) in the backcountry area to reduce its width to 4 feet. The non-motorized trail (Carson to Cataract Lake) in the upper area of the Pole Mtn/Finger Mesa backcountry area was checked in August to assess trail conditions and whether any motorized use was occurring on the trail. There is some trail reconstruction work needed at several locations associated with stream crossings or seeps. One of the trails switchback has been cut and needs restoration work. The trail did appear to have motorcycle tracks on it and needs to be signed at the Carson area	No Forest Plan changes needed.

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			<p>and at the junction of West Lost trail as a nonmotorized trail. A inspection report is on file at the Supervisor's office.</p> <p>Representative Diane DeGett continues to work on a wilderness bill that includes Pole Mtn/Finger Mesa area (Handies Peak) for inclusion into the national wilderness preservation system.</p>	
<p>Evaluate Backcountry Areas relative to 36 CFR 219.12 (k).</p>	<p>Comparative evaluation for the M&E Report. (Forest and District Rec Personnel)</p>	<p>Forestwide Backcountry Areas.</p>	<p>The Backcountry Area Desired Conditions, Standards and Guidelines, Allocations, and Monitoring Items were reviewed and do not need to be changed.</p> <p>Errors in the backcountry boundaries have been noted either during the initial work with project environmental assessments (Fox Mtn (020948) or during routine field inspections. These corrections need to be addressed under a plan amendment and area boundary corrections made to the Alternative G and Forest Travel map</p> <p>The Roadless Area Conservation Initiative, Final EIS and final rule (36 CFR Part 294 – Special Areas: Roadless Area Conservation) was published in the Federal Register on January 12, 2001. The final rule was to take effect on March 13, 2001, but remains delayed. Depending upon the final rule direction, the Forest Plan and the Unroaded section of the Plan FEIS may have to be amended to incorporate the final rule direction.</p>	<p>A plan amendment and map corrections to the Alternative G and Forest Travel maps is pending until the completion of the Secretary's Decision regarding the Forest Plan appeal.</p> <p>No other Forest Plan changes are needed.</p>
Recreation -- Wild and Scenic Rivers				
<p>Assess the physical, biological and social resources within W/S River corridors.</p>	<p>Assess impacts on the physical, biological, and social resources (Indicators). (Forest / District Rec. Personnel and Core Team)</p>		<p>With the enactment of P.L 106-530, the Great Sand Dunes National Park and Preserve Act, a SIR needs to be written that addresses the changes to the Wild and Scenic River write-up section of the Forest Plan FEIS in addition to the map correction changes to the Alternative G and Forest Travel maps..</p> <p>No Wild and Scenic River corridor was reviewed in FY01.</p>	<p>The Wild and Scenic River SIR and corrections to the Alternative G and Forest Travel maps is pending until the completion of the Secretary's decision regarding the Forest Plan appeal.</p> <p>No Forest Plan changes are needed.</p>
<p>Evaluate W/S River Mgmt Rx Objectives, Desired Conditions, and S&Gs. 36 CFR 219.12 (k)</p>	<p>Comparative evaluation for the M & E Report. (Forest Rec. Specialist and District Rec. personnel)</p>	<p>Forestwide W/S River Mgmt Rx Areas.</p>	<p>The W/S River Standards, Desired Conditions, Allocations and Monitoring Items were reviewed, and no changes are needed.</p>	<p>No Forest Plan changes needed.</p>
Recreation -- Wilderness				
<p>Monitor and evaluate visitor-use levels and other Wilderness resources. 36 CFR</p>	<p>Schedule for implementation those Priority 1 items outlined in each wilderness Area WIS. Surveys, data gathering, and</p>	<p>South San Juan, Weminuche, La Garita, and Sangre de Cristo Wilderness Areas</p>	<p>Baseline monitoring of campsite conditions, campsite density, trail encounters, large group encounters, dogs under control and meadow health were done in compartments within the Sangre de Cristo wilderness and</p>	<p>The Wilderness SIR and corrections to the Alternative G and Forest Travel maps is pending until the completion of the Secretary's decision regarding</p>

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293.2	reports. (District Wilderness Coordinators, Wilderness Rangers, and Resource Specialists)		<p>a few more compartments in the Weminuch and South San Juan wilderness areas.</p> <p>Results of this monitoring indicates the management-area standards are being met. In a few incidences where monitoring shows that standards are exceeded (campsite conditions, camp density), the wilderness team will need to assess if the next level of management action is needed and recommended for implementation.</p> <p>Baseline monitoring is scheduled in FY02 and plans are to complete all the baseline monitoring work in the Weminuche, South San Juan, Sangre de Cristo and La Garita wilderness areas.</p> <p>With the enactment of P.L 106-530, the Great Sand Dunes National Park and Preserve Act, a SIR needs to be written that addresses the changes to the Wilderness write-up section of the Forest Plan FEIS in addition to the map correction changes to the Alternative G and Forest Travel maps.</p> <p>The Secretary affirmed the Chief's decision regarding Wilderness fish stocking. The Chief indicated the Forest should issue an errata sheet regarding wilderness fish stocking. An errata sheet is not needed since a plan amendment to implement the wilderness management direction (including wilderness fish stocking) was signed in 8/98. The Forest needs to document this decision and complete a BA/BE covering the entire wilderness areas on the Forest.</p>	<p>the Forest Plan appeal.</p> <p>Document the plan amendment decision to implement the wilderness management direction and wilderness BA/BE</p> <p>No changes needed to the monitoring indicators outlined in the wilderness EA.</p>
Evaluate Wilderness Forestwide Goals, Objectives, S&Gs and Wilderness Mgmt Rx Objectives, Desired Conditions, and S&Gs. 36 CFR 219.12 (k).	Comparative evaluation for the M&E Report. (Forest Rec. Specialist and District Wilderness Coordinators)	Forestwide Wilderness Mgmt Rx Areas	The Wilderness EA was completed and Decision Notice issued which amended the Forest Plan to include the wilderness desired conditions, management area prescriptions, standards and guidelines and management actions (indicators to be monitored).	A wilderness amendment has been made. No other Forest Plan changes are needed.
Research and Information Needs				
Determine progress of accomplishing needed research. (Items listed on the top of page V-16 of	Questionnaire. (Forest Planner)	Poll individual RSST members on progress.	Progress is continuing on 1) watershed inventories for old growth in conjunction with proposed timber harvest activities; 2) Forest roads inventories; 3) collection of floral and faunal occurrence data for inclusion in the Colorado Natural Heritage Program Biological Database; and 5) an	No changes in the Forest Plan recommended.

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the Forest Plan).			ethnographic overview at the Great Sand Dunes National Monument. Under NRIS, a civil rights project was initiated to develop methods of identifying underserved communities.	
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 Hot Creek RNA was visited and visually evaluated. It appears to be receiving very low use and is being minimally impacted by humans. Natural processes are the prevailing influence in this RNA. 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) were met. Assess changes in SIO with respect to ROS.	On-site or photo-point monitoring. (Landscape Architect: K. Clum)	Projects where Scenic Resources is a key issue, and special areas such as campgrounds, gravel pits, and utility sites.	On site monitoring was conducted at Lujan Trailhead, Blue Creek Post and Pole, and Wolf Creek Ski Area in 2001. It is recommended that straight line edges be feathered for rehabilitation. Lujan Trailhead was in compliance with Scenic Integrity Objectives. The Blue Creek Post and Pole area along Hwy 160 was in compliance with the Scenic Integrity Objectives. Further harvesting is expected to continue to reduce insects and disease and to promote aspen growth along the scenic byway. Visits to Wolf Creek Ski Area were made in July 2001. Initial site visits showed that 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 was made with Wolf Creek Ski Area operator; however, May of 2002 showed no changes. Retaining walls for the knife ridge area, also do not borrow from the characteristic landscape colors. However, steps are being taken to restrain the wall to bring the color of the wall into compliance with the Scenic Integrity Objectives.	No changes needed in the Forest Plan.
Determine if SIOs were met. Assess Constituent Survey information	Constituent surveys, visitor observations, interviews, and public participation. (Landscape Architect: K. Clum)	Ranger District roads, trails, and recreation sites.	Constituent Surveys were not completed in FY 2000, since the surveys are awaiting Region-wide approval. However, information was gathered during public contact were made during site visits to Como Lake Trail, Medano Pass, Alamosa Canyon, and the Conejos Canyon, to discuss visitor perceptions and expectations and the current status of Scenic Resources for these areas. Currently, these areas come into compliance	No changes needed in the Forest Plan.

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			with sensitivity levels assigned to these areas.	
Evaluate scenic resources relative to 36 CFR 219.12 (k).	Summarize report	Forest	Three separate areas were monitored for Scenic Resource compliance during FY 2000. 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. All areas were in compliance with the Scenic Resource Objectives, Standard and Guidelines and Management Prescriptions.	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)	FY 01 fire projects monitored include Spanish Creek and Marshall Gulch.	Both the Spanish Creek and Marshall Gulch wildfire areas rated "at-risk" until this past year where they successfully transitioned into "Properly Functioning Condition" status	No changes in Forest Plan needed. Standards and assessments seem to be working.
		FY 01 Timber Projects monitored: Twister Salvage Sale	Twister Salvage Sale incurred soil compaction impacts from logging. Restoration measures were successfully begun in the 2001 field season.	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)	Projects where high erosion or mass-movement potential exists. Projects where soils is a key issue.	The Forest soil scientist was given WEPP training, which is the new Water Erosion Prediction Program. We are starting to use this in EA's and is proving to be a valuable tool. The tool predicts erosion from roads and when compared to actual erosion, was reasonable.	No change needed.
	(3) Ocular estimates, pace transects, on-site, professional judgements to monitor fertility, erosion, mass movement. (Soil Scientist: J. Rawinski)	See soils projects mentioned above. Plus projects on this row.	FY 01: In addition to above, looked at revegetation, soil erosion projects in the Burro Creek and California Gulch watersheds.	No change needed.
	(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.	FY 01: Inspected the Chama Landslides. No new movement and healing by vegetation is proceeding.	No changes needed.
M & E reclamation	On-site and/or random	FY 01 revegetation	Monitored the Treasure Trove remediation. Grass	No changes needed. We are

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and reveg. efforts. (Soil Scientist: J. Rawinski.)	transects, review District project records and erosion models. (Soil Scientist: J. Rawinski)	monitoring.	responded very well, much improved in vigor. The remediation effort used concentrated livestock feedlot to add organic matter and nutrients to an impoverished site. Results are favorable.	implementing native plant guidelines.
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. <i>Neoparrya lithophila</i> plants appear to be vigorous and robust. The rocky habitat naturally protects these plants from most influences. The Devil's Hole Special Interest Area, designated because of its geological and scenic qualities, was monitored in the summer of 2001. Access remains cross-country, as no trail exists. The SIA remains natural appearing and non-motorized. Livestock presence was not noted. Interpretive efforts have not yet begun.	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.	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.	In FY 01, a total of 1738 acres were certified as being fully stocked. Areas to be planted are noted in the column to the right.	Restocking of harvest areas. 36 CFR 219.12.
Assess timber suitability. 36 CFR 219.12; 219.27	(1) Standard suitability determination at Forestwide level. (Analyst/Silviculturist)	None.	An analytical error was found in the FEIS timber suitability assessment for the revised Forest Plan. The Forest's analyst failed to include Suitable timber lands based on Soils direction for Suitable lands. Timber lands in the Los Pinos/Cumbres/LaManga-Grouse areas on the Conejos Peak RD formerly deemed Tentatively Suitable and/or Suitable and Scheduled (in the draft EIS) were errantly identified as Unsuitable.	Assess timber suitability. 36 CFR 219.12; 219.27
	(2) On-site inspection, inventory/growth-yield exams, soil sampling. (Proj.	Pre-sale: West Park Creek, Long Lost Cabin, Blowout,	Preparing for stand inventory and gate 1 analysis, an area on the Divide district including the Geronimo and Benino Timber Sales was analyzed and is believed to be suitable	

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	<p>Silviculturalists {J. Griffin, J. Murphy}, Proj. Foresters and/or Technicians. Timber Sale Administrators {J. Flaget, + B. Valasquez}. Soil: J. Rawinski)</p>	<p>Puddles, Shaw Divide, Grouse, Trujillo Meadows</p> <p>Harvest Operations: Beaver Mountain II Park Creek Salvage, Pinochle Park</p> <p>Stocking Surveys – Boot, Moon Creek, Cross, North Park,</p> <p>Survival Surveys – Grouse</p> <p>Soil Surveys – Twister Grouse Salvage</p>	<p>but is currently categorized as unsuitable.</p> <p>All sales in the Black Mountain area on the Divide Ranger District have been assessed for suitability.</p>	
<p>Assess I & D infestations relative to endemic levels prior to and following management activities. 36 CFR 219.12</p>	<p>On-site observation and limited sampling. Can include stat. accurate plots. (Proj. Silvi.: {J. Griffin, J Murphy}; Proj. Foresters and /or Technicians Sale-Admin {J. Flaget, B. Velasquez}. R2 I&D {R. Mask, T. Eager})</p>	<p>Active TS's & ongoing Landscape Analyses & post-sale. Also areas undergoing extensive natural disturbance.</p> <p>Dendrochronology Studies</p>	<p>I&D infestations were observed in and around the proposed or upcoming Houselog Vegetative Mgt. Area and Park Creek Salvage TS and in/around the Cochetopa Hills area (Saguache RD), Handkerchief Mesa Mgt. Area and Twister TS(s) and the Wolf Creek Ski Area (Divide RD); Low Country Mgt. Area, November TS and Grouse TS (Conejos Peak RD);</p> <p>These observations indicate that Western Spruce Budworm (WSB) is even more widespread than previously realized, and we can say that virtually all of the Mixed Conifer type on the Forest has budworm at some level. Douglas-fir beetle has been sighted in stands previously infested with WSB on the Saguache District. An increase in the level of Mountain Pine Beetle was again noted in the Ponderosa Pine zone on the Saguache District.</p> <p>Dendrochronology studies pertaining to the Western Spruce Budworm infestation cycle were completed by the Rocky Mountain Experiment Station based in part on samples taken on the Rio Grande NF. The results of this study is now available and will eventually be published in the Canadian Journal of Forest Research.</p>	<p>Assess I & D infestations relative to endemic levels prior to and following management activities. 36 CFR 219.12</p>

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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 openings were monitored in the following past timber sales: Park Creek Salvage, Pinochle Park, Beaver Mountain II Timber Sales. No harvest openings were found to exceed the 40-acre maximum	Monitor size of harvest openings. 36 CFR 219.27.
Assess implementation of silvicultural objectives during pre-sale, harvesting, and post-sale periods	On-site, photo points, density measurements. (Pre-Sale: Proj and consulting Silvi/Prep Forester/Forest Techs & ID team members from EA teams tied to specific TSs. Active contracts: Sale Admin. Post-sale: Same as pre-sale)	Pre-sale: West Park Creek, Long Lost Cabin, Blowout, Puddles, Shaw Divide, Grouse, Trujillo Meadows, Personal & Commercial Use firewood & Post/Pole sales. Post-Sale: Twister Sales, Park Creek Salvage, Pinochle Park, Hart Mountain.	On site observations in the Park Creek Salvage Timber Sale show a significant reduction in the habitat available for the Western Spruce Budworm. Some large Douglas-fir leave-trees have been found infected with the Douglas-fir beetle, which may result in mortality of the leave trees resulting in difficult restocking of the stands. Improvement cut prescriptions in the Pinochle Park timber sale will allow the future manager to implement a wide variety of prescriptions. The Pinochle Park timber sale was visited by an interdisciplinary team to review the sale and identify if objectives had been met. All felt the work completed had accomplished the objective of reducing the risk of WSB infection from the adjacent Park Creek Salvage Timber. West Park Creek and Long Lost Cabin Timber Sales were offered for sale early in FY 2001. Unfortunately, they were not bid on and are not being implemented at this time. Re-Offer date unknown. Accomplishment of silvicultural objectives has been hampered by the closure of the largest purchaser of Rio Grande NF timber, US Forest Industries declared bankruptcy in 2001. They have sales under contract that have not been completed to date. Accomplishment will depend on the outcome of the bankruptcy process.	Assess implementation of silvicultural objectives during pre-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 reforestation and timber volume offered.	Assess output performance of TS program quantity components as compared /outputs. 36 CFR 219.12
Assess Timber program relative to 36 CFR 219.12 (k).	Comparative evaluations. (TCE Team)	Various Forest offices.	TCE team reviewed FP (Forestwide) Desired Conditions (Goals), Objectives, and Standards and Guidelines (for Silviculture); reviewed Mgt.-area Allocations, Prescriptions, and Standards/Guidelines for Mgt. Areas including Suitable timberlands (4.21, 4.3, 5.11, 5.13, and	Assess Timber program relative to 36 CFR 219.12 (k).

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			5.41); and reviewed monitoring approaches to timber-related Desired Conditions.	