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Forest Plan Monitoring and Evaluation Report

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Rio Grande National Forest,
Colorado

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CERTIFICATION

The Rio Grande National Forest's (RGNF or Forest) Land and Resource Management Plan (Forest Plan), approved on November 7, 1996, is a dynamic and evolving document. Monitoring of the Forest Plan is essential in evaluating its effectiveness and making necessary adaptive management changes. The Forest Plan has been amended seven times to date. Overall, the 2012 monitoring and evaluation results indicate that the management of the Forest is meeting goals, desired conditions, standards and guidelines (S&Gs), and prescriptive allocations (per 36 CFR 219.12 (k)). Forest specialist recommendations are as follows:

Monitoring Improvement:

- A screening checklist should be utilized for determining whether to permit recreation events for compliance with FSM2721.49, FSH 1909.15, 30.3-2 and the terrestrial BA/BE.
- Complete the forest wide monitoring assessment for snags in association with MIS for ponderosa pine.
- Evaluation of Mehl old growth application to the Forest, new OG criteria most likely needed to adequately inventory this attribute.
- Evaluation of potential conflict b/t off-road vehicles and winter range S&Gs, particularly the increasing use of snowmobiles.
- Complete the forest wide MIS status assessment.
- Complete the grid-based MCB program for the forest avian MIS including recognition in Forest Plan Appendix A.

Forest Plan Updates:

- Terminology in the Forest Plan with respect to the scenic S&Gs should be updated during the next plan revision.

Future Amendments:

- As noted in the 2010 Conservation Assessment and BE update for the Forest regarding bighorn sheep, the Forest Plan lacks management direction to deal with this issue. Although the issue is being dealt with successfully in some cases, debate continues over what is needed to attain adequate separation b/t domestic sheep and BHS. Recommend a standard for effective separation be developed for future Forest Plan revision.

I have reviewed the annual monitoring and evaluation report for the RGNF for FY 2012. 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 RGNF and, after further analysis and required public notification and involvement, will implement those that I decide are appropriate.

Adam Mendoza — 9/30/13

for **Dan S. Dallas** — **Date**
Forest Supervisor

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1. Introduction and Status

On November 7, 1996, the Revised Land and Resource Management Plan (Forest Plan) for the Rio Grande National Forest (RGNF or Forest) was approved by Regional Forester Elizabeth Estill. The Forest Plan establishes the management direction for all future activities to ensure that an interdisciplinary approach is used to achieve the desired conditions described for all areas of the Forest.

This monitoring and evaluation report is based on the RGNF Monitoring Plan, as described in chapter V of the Forest Plan for the RGNF. This report is not a list of outputs; rather, it describes conditions of the various resources on the Forest. The report is key to the concept of adaptive management (the ability to change as new information or technology is developed) and is the feedback mechanism for improved resource management. The information presented in this report will be used to determine if an amendment or revision of the Forest Plan is needed.

The organization of this report is as follows. First, there is a brief discussion of the status of the Forest Plan appeals, followed by a discussion of amendments and potential amendments. Next are monitoring requirements and results, by resource (results are called "State of the Resource"). An appendix provides a detailed summary of this past year's monitoring results.

2. Appeals

There are no outstanding appeals to the RGNF Forest Plan at this time.

3. Forest Plan Amendments

Seven Forest Plan amendments have occurred to date. There are also several amendments, corrections, or other actions that have been recommended. These are outlined below.

Completed Amendments

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

Amendment # 1

Twister Blowdown Management Area Prescription 3.3. This amendment provided a temporary exception to Management Area (MA) Prescription 3.3. On March 2, 1998, a decision notice was signed that amended the Forest Plan to allow for timber salvage harvesting on approximately 60 acres within MA Prescription 3.3 (Backcountry) in the Twister Blowdown area. The non-significant amendment changed the "no harvest" Forest Plan standard in this prescription, so that salvage of blowdown timber could occur to reduce the risk of bark beetle infestation and spread. The timber harvest was completed and the area is again managed as Backcountry. Spruce beetle monitoring is continuing in the backcountry area.

Amendment # 2

Wilderness Management Direction. The scope of Forest Plan direction for wilderness management was limited in the 1996 revised Forest Plan due to ongoing wilderness planning efforts. It was recognized that population growth in 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. Forest Plan direction pertaining to the management of recreation use, changes in recreational use patterns, and preservation of the

wilderness character of these areas, were reviewed. A "limits of acceptable change" analysis; 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; was used to help formulate a Forest Plan amendment pertaining to wilderness management direction. On August 3, 1998, a decision notice was signed to:

- implement wilderness management goals for the Forest Plan,
- change MA prescription definitions and locations,
- add wilderness MA prescription and Forestwide standards and guidelines (S&Gs),
- define thresholds and possible management actions within wilderness when thresholds are exceeded,
- add wilderness monitoring requirements, and
- add wilderness management to the Forest Plan.

This amendment also clarified the stocking of indigenous fish in wilderness. The Forest Plan amendment and implementation of the wilderness management direction and action items began on October 1, 1998.

Amendment # 3

Adjustment of a Botanical Special Interest Area Boundary. On June 18, 1999, a decision notice was signed approving the adjustment of a special interest area (SIA) boundary. The SIA was originally designed to protect a sensitive plant (Ripley milkvetch), and the adjustment was made to more accurately 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 percent 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 SIA boundary. The analysis to support the non-significant amendment, done as a part of the November Analysis Area Environmental Assessment (EA), resulted in reducing the acreage of the botanical SIA from 2,076 acres to 910 acres. The acreage excluded from the SIA (1,166 acres) was included in a Bighorn Sheep MA Prescription (5.42). The location of the botanical SIA 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 to correct suitable timber lands on the RGNF. The non-significant amendment corrected omissions made between the publication of the draft and final environmental impact statements (EISs) for the revised Forest Plan. Net adjustments of acres to the suitable timber land base result in an 8.3 percent increase in suitable lands, which was determined to not be a significant change. The amendment became effective upon completion of the consultation process with U.S. Fish and Wildlife Service (USFWS) regarding the adequacy of the Forest Plan biological assessment and evaluation.

Amendment # 5

Management Indicator Species (MIS) Amendment. A decision notice for a non-significant amendment to the Forest Plan was signed on October 24, 2003, which designated nine MIS, and added or modified the associated S&Gs and monitoring and evaluation strategy in the Forest Plan.

Amendment # 6

Baca Mountain Tract. This amendment addressed the ownership and jurisdictional changes due to Public Law 106-530, Great Sand Dunes National Park and Preserve Act of 2000. Portions of the Sangre de Cristo Wilderness within the RGNF became the Great Sand Dunes Preserve. The RGNF also obtained a portion of

the Baca Grande Land Grant called the Baca Mountain Tract. This amendment corrected the Forest Plan map to reflect the new RGNF boundaries and to incorporate the Baca Mountain Tract into the Forest Plan. The Baca Mountain Tract Amendment to the Forest Plan was analyzed in the Baca Mountain Tract/Camino Chamisa Environmental Assessment (EA), a joint EA with the Great Sand Dunes National Park and Preserve. The Great Sand Dunes National Park and Preserve, Saguache County, USFWS, and CDOW were cooperating agencies in this EA. The amendment was completed in November 2009.

Amendment # 7

Southern Rockies Lynx Management Direction Amendment. A non-significant amendment to all the Forest Plans in Colorado was signed on October 28, 2008, by Rick Cables, Regional Forester. This amendment added lynx conservation measures through the application of revised S&Gs to the Forest Plan.

Status of Previous Recommendations: Potential Forest Plan Amendments, Administrative Corrections, or Other Actions

- There were several recommendations for changing the wording of some of the silvicultural guidelines and for changing monitoring requirements for fish and birds in the Forest Plan. These were addressed in the MIS amendment discussed above.
- There have been recommendations for correcting mapping errors in the inventoried roadless area (IRA) boundaries. IRA mapping errors were identified in the Forest Roads Analysis Report (2004) and documented in the RGNF Colorado Roadless Review Taskforce Briefing Paper and presentation dated June 7, 2006, and the Colorado Roadless Rule DEIS.
- The Forest continues to suffer from catastrophic, epidemic-level insect infestations. The Forest continues to assess forest health and may propose changes to the Forest Plan to allow for vegetation treatments where necessary.
- The Forest needs to assess the Forest Plan recreation standard which dictates recreational stay duration limits to make the standard consistent with other forests in the region.
- The Village at Wolf Creek access analysis identified the need to change the scenic integrity objective (SIO) at the Wolf Creek Ski Area to make it compatible with the existing visual situation which has been highly modified due to the ski area development, Highway 160 and its improvements, and the Colorado Department of Transportation (CDOT) maintenance facilities. There was also a recommendation to update the desired condition statement for the ski area. These items will be addressed when the next NEPA analysis for ski area development is completed.
- The Forest recently conducted an analysis to assess Forest Plan consistency with the 2005 Travel Management Rule. The analysis concluded that the Forest Plan, including the afternoon ATV big game retrieval direction, is in compliance with the 2005 Travel Management Rule and no changes to the Forest Plan are needed.
- A recommendation has been made to incorporate current terminology and definitions for wildland fire and prescribed fire management policy and implementation into the Forest Plan. This may be addressed as an administrative correction to the Forest Plan in the future.
- A recommendation has been made to update the Scenic Resources standards and guidelines terminology. This might be accomplished through an administrative correction or during Forest Plan revision.
- The Forest continues to update the motor vehicle use maps. Future travel management planning may propose changes to the Forest Plan.
- A recommendation has been made to conduct a management indicator species (MIS) status assessment for avian species, mule deer, and elk to determine if changes are needed in monitoring.

- A recommendation has been made to update the Forest Plan biological evaluation for wildlife to reflect the current Regional Forester's sensitive species list.

4. Monitoring Requirements and State of the Resource

Introduction

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,
- MA prescriptions, as well as the Forestwide and MA-specific S&Gs,
- the monitoring plan, and
- congressional recommendations.

Annual monitoring goals can be described in the annual monitoring operation plan detailing monitoring expected to be completed in the upcoming year. Chapter V of the Forest Plan outlines the monitoring task, precision, frequency, reporting method, and the responsible party.

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.

The monitoring and evaluation report focuses primarily on implementation and effectiveness monitoring. It also addresses validation monitoring which involves more of a long-term analysis.

FY 2012 Monitoring and Evaluation by Resource

This section (1) briefly synopsizes the minimum level of monitoring identified for each resource component of the monitoring plan (under "Monitoring Requirements" subheading); and (2) summarizes FY 2012 monitoring results for each resource component (under "State of the Resource" subheading). More detail on monitoring requirements is included in the Forest Plan (chapter V, pages V-4 through V-16).

Note that Forest monitoring efforts are focused on meeting these requirements; however, the amount of monitoring accomplished for each element is a function of available funding.

Monitoring Requirements

Maintaining air quality at a level 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 Park. Surveys conducted at the same time in all four wilderness areas on the RGNF and Great Sand Dunes National Park have identified the lakes most sensitive to changes in acidity; these have been selected for long-term trend monitoring. Regional protocols and the Forest Air Quality-Monitoring Plan stipulate that these lakes should be monitored three times per summer to be most effective.

State of the Resource

Air quality for the Forest is excellent and remains an outstanding feature that people come to enjoy. Long visual distances enhance beautiful scenery. Some impacts occur from prescribed burning or wildfire, but are quickly dissipated by stable atmospheric conditions. Regional haze diminishes visibility in some areas, but visual distances remain among the best in the country. Prescribed burn operations did not occur in 2012 due to a state wide ban on prescribed burning activities. Some pile burning occurred in fall/winter of 2011-2012.

In the summer of 2012, samples were collected from eight sensitive high-elevation lakes at established long-term sampling sites. Lake visibility and particulate data are useful in modeling to predict impacts from proposed facilities that could impact air quality. These data are also used to prescribe pollution control technology for new major polluting facilities. No additional information is available from lichen monitoring.

Monitoring Requirements

Watershed health is a primary focus of the Forest Service, so particular emphasis will be placed on monitoring. 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 resource managers.

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

State of the Resource

Watershed disturbance is highest in areas of past timber harvest activities. Areas of low precipitation, such as the Saguache Ranger District, can tolerate more watershed disturbance before stream health begins to be impacted. The location of disturbances and how they are mitigated seem to be the more important criteria for

protection of stream health. Forest S&Gs and design criteria to protect stream and soil health have proven effective in recent timber NEPA documents in regard to the spruce beetle epidemic.

The spruce beetle epidemic continued on the RGNF in 2012 and is reducing live basal area in watersheds forest wide. Approximately 381,000 acres of spruce stands have been impacted to date. These losses are likely resulting in minor to moderate increases in total runoff and peak flows. However, direct impacts to channel stability or slope erosion from these effects were not noted during field evaluations. Research has shown healthy streams with stable banks can accommodate these moderate changes in stream flow dynamics. In the coming years, excessive woody debris from falling trees could present problems at culverts and cause erosion of roads at these stream crossings.

Stream health on range allotments in Carnero Creek and Table Mesa were evaluated and varied from robust to at-risk in more highly utilized areas. Stream health was determined by comparing channel conditions to a similar "reference stream" that represents expected conditions. This comparison is either made visually or by using bank stability and other measurements. Pebble counts were conducted in 3 location along the Middle Fork Carnero Creek as part of a long term monitoring project associated with the range allotment in that location. Isolated areas of hoof alteration were noted at several locations. These problems were noted mainly in small open meadows where drainages are narrow. Livestock missed during pasture cleaning contribute to these impacts. Range specialists have made and will continue to make adjustments to address these impacts to avoid excessive concentration of animals in sensitive riparian areas.

The forest did not have a hydrologist on staff for the majority of the year and as a result stream and watershed health monitoring suffered as staff was not available to cover this part of monitoring.

Monitoring Requirements

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

To determine if the Forest Plan is meeting this objective, the Forest uses several monitoring tools. Forest specialists will monitor those species and/or habitats about which there are some questions as to their potential viability. Species monitored are found on the threatened and endangered list, the Regional sensitive species list. For plants, species monitored are found on the Colorado Natural Heritage Program's list of species of special concern and significant plant communities. MIS are being monitored beginning in 2004.

Monitoring will occur at two different scales. The "fine-filter" scale will focus on particular plant and wildlife species that generally occupy distinct habitats which cannot be accurately monitored at the landscape level. MIS were specifically selected as one tool to help evaluate diversity and species viability Forestwide. 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 (such as cover type and structural changes).

To ensure that the Forest is meeting this objective, four attributes have been selected for monitoring vegetation because they capture the key components of vegetation diversity. Two of them involve tracking changes in the amount, quantity, and pattern of the vegetation that may appear over the life of the Plan. The

third is a validation of the reference work and landscape-scale tools. The final attribute is a progress report on the gathering of data for the Forest's old-growth inventory/reconnaissance.

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

State of the Resource

Ecology Program. The ecology program was responsible for the plant-related items in the Biodiversity section of the Monitoring Plan; they were: (1) fine-filter assessment of plant species (e.g. Astragalus ripleyi; and other special status plants), and (2) coarse-filter assessment of habitat (landtype association status, special status plant communities, and old growth). The ecology program was also responsible for making a determination of whether the biodiversity-related goals, desired conditions, S&Gs, 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 (additional detail is provided in the appendix). Information on some items associated with these goals was not as robust as previous years due to the retirement of the Forest Ecologist/Botanist and the vacancy associated with that program through FY12. Specifically, information on sensitive plant communities and old growth sampling was reduced or not collected. However, based on the information collected in previous years the Forest appears to be generally meeting the goals, desired conditions, and S&Gs 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 MA prescription allocation is needed relative to the ecology resource. However, botanical and ecological plant community expertise is lacking and should be noted as a critical need to refill through hiring.

The field research work for Astragalus ripleyi was completed by FY 2011. No new information concerning this species was collected or needed in FY12. Results indicate that the population demographics for this species are primarily influenced by seasonal 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.

There were no specific site visits made to any Forest sensitive plant species sites in FY12. General botanical surveys continued for project-level support. No new special status plants were found during FY12.

Updated vegetation data based on FS VEG are regularly being used for project-level analysis work. However, the on-going spruce beetle epidemic continues to reduce the live Engelmann spruce component in the spruce/fir zone. Ultimately, updated cover type mapping is recommended in the subalpine zone.

No CNHP plant communities of special interest were visited in FY12. Previous years' visits to sites including 1) Salix monticola / Calamagrostis canadensis; 2) Salix geyeriana /Calamagrostis canadensis; and 3) Alnus incana / Cornus sericea suggests that all CNHP plant communities of special interest are stable with no apparent threats identified.

No old-growth inventories were completed in FY12. Based on previous years' efforts, however, old growth (Mehl 1992) on the RGNF appears to remain uncommon. On the Divide and Conejos Peak Ranger Districts, old growth appears to be limited due to a lack of patchiness, lack of structural diversity, and/or net productivity being too high. Because the Mehl criteria are biased toward more productive sites, the Saguache Ranger District appears to generally lack the productive capability to meet the Mehl old-growth descriptions. Based on current information, it does not appear that the Mehl (1992) definition for old growth is applicable to the Forest for defining and mapping areas that may be important as older forest type communities for wildlife habitat or other values. Additional work on redefining old growth for all forest cover types is recommended for the Forest.

On-going monitoring did not show a need for change in the biodiversity items in 36 CFR 219.12 (k).

Wildlife Program. The Wildlife Program is responsible for the terrestrial wildlife-related items in the "Biodiversity" section of the Monitoring Plan. This includes some aquatic or semi-aquatic species such as amphibians. These responsibilities also include a determination of whether the biodiversity-related goals, desired conditions, S&Gs, and prescription allocations (36 CFR 219.12 (k)) are being met or are still appropriate.

The Forest contains a variety of habitats that support approximately 196 species of birds, 69 species of mammals, and 15 species of amphibians/reptiles. Sustainability of this diverse resource is primarily related to the maintenance of a desired vegetative condition, or combination of conditions, that provide the habitat requirements for specific species or groups of species (Regional Objective 2 of the Forest Plan). For some species, however, viability is tied to geologic or physical features such as rock cliffs (e.g., peregrine falcon), talus (e.g., pika), waterfalls (e.g., black swift), caves or mines (e.g., Townsend's big-eared bat), or specific structural attributes such as snags (e.g., 63 wildlife species in Colorado) or high concentrations of downed wood (e.g., Canada lynx denning habitat). Evaluation of habitat conditions across the Forest are primarily limited to support funding associated with timber sales, range allotment management plan revisions, and other project activities that provide an opportunity for both coarse- and fine-scale assessments. Proposed management activities are evaluated for effects on wildlife and their habitats commensurate to the risk associated with the activity, with large-scale activities often accompanied by site-specific surveys and/or habitat evaluations for some species. For groups such as threatened, endangered, and sensitive species (TES), specific survey and management direction are applied as directed in Forest Service Manual 2670. Based on the outcome of the evaluation, conservation measures intended to provide for species viability and habitat sustainability are incorporated, as appropriate. Project-level monitoring is intended to complement the additional monitoring efforts accomplished for species and/or species groups of particular interest as directed in Table V-1 from Chapter 5 (Monitoring) of the Forest Plan.

The RGNF is primarily comprised of high-elevation spruce-fir forest and aspen (53 and 20 percent of the plant community types, respectively) and thus has a high conservation responsibility for species associated with these forest types. In 2012, natural disturbance events associated with bark beetles continued to be the primary influence on habitat conditions in spruce-fir, especially in older stands. Based on aerial flight data, well over 275,000 acres of spruce forest on the RGNF now exhibits high levels of spruce beetle activity. While bark beetle outbreaks of this scale are known to have occurred historically in the Southern Rockies, it is likely that this event will have detectable positive effects on habitat for some species (e.g., woodpeckers) and negative effects on others (e.g., canopy-dwelling birds). In fact, in June 2011 the American three-toed woodpecker was formally removed from the sensitive species list for Region 2 because of population increases in response to bark beetle outbreaks.

Timber salvage sales continue to be planned and/or implemented across the Forest in response to the bark beetle mortality. The overall acreage trend in salvage sales in response to the mortality has increased several-fold and is expected to continue into the future, suggesting that implementation and effectiveness monitoring

of design criteria and S&Gs for the wildlife resource as associated with salvage may also be increasing in importance. The increase in salvage sale activities in the spruce-fir zone, in concert with the rapid change in tree canopy conditions, suggests that additional information may be warranted to assess habitat conditions for several species of conservation concern. For example, additional understory information may be important to assess where salvage treatments should be focused to protect and/or promote cover needs for snowshoe hare, which is the primary winter prey species for Canada lynx. As reported in 2011, a need has also been identified to determine how to assess understory regeneration on a landscape-scale, and if a correlation exists between summer and winter understory cover measurements in local spruce/fir types. Overall, all available information suggests that FY 2012 salvage sales successfully incorporated conservation measures during the planning and implementation phases. Post-sale monitoring for wildlife purposes occurred on at least two timber sale areas in 2012. The qualitative data gathered from the November TS on the Conejos Peak RD and the Baldy TS on the Divide RD suggests that the applicable wildlife S&Gs reviewed were successfully implemented.

Past iterations regarding riparian habitat concerns as related to the potential livestock influences continued with the adoption of a willow-browse evaluation technique that might help to answer questions regarding desired conditions for riparian-associated wildlife species, particularly MIS birds. The wildlife program continued sampling using this technique in FY12. There are several recent environmental analyses that contain provisions for adaptive riparian habitat improvement. This suggests that increased monitoring of the assumptions associated with adaptive management principles will be important in future years and may require additional time and funding. A shift in NFVW funding allocations could be useful to help meet these needs. Currently, rangeland conditions and trends are primarily assessed during grazing permit administration and program review, and the ability of wildlife staff to assess if conditions for wildlife species (e.g., MIS) are being met in important habitats, such as willow-riparian habitats, remains limited. Continued efforts to work on assessing Wildlife Standard 21 and to some degree, Wildlife Standard 20, is encouraged between range and wildlife staff. One district also reports additional resolution is needed on whether the current range utilization standard provides adequate protection for riparian habitat attributes for wildlife. Additional interdisciplinary discussion regarding Riparian Guideline 6 and 8 may be beneficial to the Forest goals and objectives for riparian habitat management. In 2012, the Forest wildlife program contributed substantial efforts towards potential conflicts between domestic sheep and native bighorn sheep through analysis, field inventory efforts, monitoring and an annual interagency ground count. One district began initial field work in the Snow Mesa/Table Mountain area, which is a previously unknown conflict area reported for FY11. On one allotment, domestic sheep were not allowed to graze until an adequate risk analysis and NEPA decision can be completed. This and other allotment areas will continue to be worked on in FY13 to adequately reduce and/or eliminate the risk of potential conflict between domestic and bighorn sheep. A NEPA decision on a primary conflict allotment in the Fisher Mountain area of the Divide RD is expected in FY13.

In 2012, the wildlife program conducted habitat improvement projects on 7,925 acres of National Forest System land. Examples of these projects include wetland enclosure, beaver reintroductions, well and watering trough developments, bat gate installation, road closures and barricades, and wildlife interpretation signs. The Forest Be Bear Aware program also took significant steps forward by purchasing and placing bear resistant containers in several developed campgrounds. Partnership contributions remained a critical component for completing priority projects within the wildlife program, with approximately $265,000 of partnership funding and/or in-kind support reported. Habitat improvement projects were targeted at big game species, bear-human interactions, bats, bighorn sheep, and riparian and lake habitats.

There were no changes to the Region 2 Regional Forester's sensitive species list in FY12. Inventories and/or population monitoring for TES species were primarily related to project activities such as timber sales, although increased accomplishments under the Forest Monitoring and Inventory (NFIM) program were also reported, particularly regarding species such as bighorn sheep. In 2012, data input into the Natural Resource

Inventory System (NRIS) wildlife database increased slightly, primarily on one ranger district. The 2012 efforts indicate that improvement still needs to occur in regards to utilizing the new NRIS database. This is a critical need for the Forest to address wildlife-related inventory and status questions in the future.

There were no changes to the Forest lynx habitat map in FY12. Baseline conditions were updated numerically based on project influences. Analysis for proposed projects and management activities continued to utilize the Programmatic Consultation Agreement (i.e., lynx screens) and are reported to the USFWS in an annual report. The Forest also completed and reported monitoring information associated with the use of exemptions and exceptions for the Southern Rockies Lynx Amendment. There was no specific monitoring for lynx or other furbearers of concern conducted locally by the Colorado Parks and Wildlife (CPW) in FY12. Although a vast overstory canopy change is occurring due to spruce beetles, lynx continue to be occasionally observed and are suspected to be using suitable habitat as expected. Anecdotal information regarding snowshoe hare and red squirrel suggests that these primary and secondary prey species continue to be present as expected.

No survey information for southwestern willow flycatcher was reported in 2012. To date, the Forest has surveyed approximately 81-85% of the potential habitat on the Forest at all elevation gradients while locating only one individual early-season flycatcher near the lower Forest boundary adjacent to BLM lands. The Forest continues to believe that that this species should be removed from our Unit Species List for evaluating habitat and species effects as associated with project activities. In November of 2012, the habitat conservation plan (HCP) for the southwestern willow flycatcher in the San Luis Valley was signed and implemented. The HCP does not involve any Forest lands. Critical habitat for the species remains proposed in the San Luis Valley; however, none of the proposed area occurs on Forest lands.

In 2012, the Forest continued to contribute funds to and cooperate with adjacent Forests, the BLM, USFWS, Western State College, and other partners in conducting population and habitat monitoring for the endangered Uncompahgre fritillary butterfly (UFB). Surveys in 2012 did not confirm any new UFB populations and ongoing qualitative monitoring of the 11 confirmed populations indicated population persistence at only 9 of the colonies. Both sites where presence could not be confirmed (Pole Creek Mountain and Machin Lake) occur on the Forest. Persistence was not documented at the Machin Lake sub-colony of Canon Diablo for the fifth year in a row raising concerns about extirpation from this site. The populations at three sites on an adjacent Forest continued to be quantitatively sampled using previously placed transects to produce estimates of population size. The Machin Lake colony area on the Forest reported to have experienced impacts from livestock trampling in 2007 again displayed no evidence of livestock impacts in 2012. There were no Mexican spotted owl surveys conducted on Forest land in 2012, and surveys were also limited on adjacent BLM lands. To date, the presence of this species remains unconfirmed on the Forest or in the San Luis Valley area.

Unlike previous years, the number of biological evaluations completed in FY 2012 was not available due to complications with the Wildlife. Fish, and Rare Plant (WFRP) database; however, it is expected that the Forest completed approximately 70 biological evaluations/assessments for TES species as usual. There were no requests for concurrence from the USFWS for project determinations and no formal consultations. The current status of the Forest's T&E species is detailed in the annual reports produced for each species and in the WFRP database. There were no new additions to the Forest list of candidate species in 2012.

Surveys and/or monitoring for sensitive raptor species occurred on all ranger districts in 2012. These included species such as flammulated owls, northern goshawks, golden eagles, and prairie and peregrine falcons. For some focal species such as northern goshawks, however, only two of the districts completed inventories. In total, the districts surveyed 7 of at least 21 known goshawk territories. One new alternate nest sites was located within a known territory and was the only active site documented in 2012. Efforts on other key raptor species are reported in the Appendix.

In 2012, the Forest was included in the Dual Frame Random Sites Occupancy modeling and survey effort for boreal toads developed by CPW's Southwest Region. Five sites on the Forest that had not been previously surveyed for boreal toads were included in this effort. These include three sites on the Divide RD (Beaver Creek, East Ute Creek, and Red Mountain Creek), One site on the Conejos Peak RD (Adams Creek), and one site on the Saguache RD (MF Saguache Creek). Although all but Saguache Creek were considered robust sites that could support the species, no boreal toads were located. Follow-up surveys and testing for chytrid fungus were recommended. Boreal toad monitoring was also completed by the Divide RD at all five known and/or historic boreal toad sites, with occupancy documented at 4 of the 5 sites. A small habitat improvement project to create additional breeding habitat was completed at the Goose Lake site on the Divide RD. The CPW also provided monitoring and/or status reports for game species such as elk, mule deer, pronghorn, and bighorn sheep. Information was not reported for species such as bats in 2012 due to the reorganization of the Bats/Inactive Mines Project previously associated with the CPW and now coordinated by the Colorado Natural Heritage Program. After being detected in the eastern U.S. in the winter of 2007–08, white-nosed syndrome in bats remained a key issue in 2012. Forest Service Region 2 continued a region-wide closure of all caves and mines, with access by humans limited to a managed permit system and strict decontamination protocols. As of this writing, white-nosed syndrome has not yet been detected in Region 2 or Colorado and the Forest is actively participating in efforts to prevent and detect it.

Survey and monitoring efforts for MIS were again conducted in 2012 on a Forest-wide scale and at the project level in conjunction with some land use activities. In 2012, the Forest continued to provide extra funding to the Rocky Mountain Bird Observatory (RMBO) in regards to the State-wide avian monitoring efforts using the grid-based monitoring design established in 2008. The program continued to incorporate the entire Bird Conservation Region (BCR 16) so that inferences could be made at larger and more appropriate scales. From 2008-2010, the Forest was contained within one forest stratum. The stratum was split into three strata prior to the 2011 field season. The new stratification by elevation allows for adjusting sampling intensity to target MIS on the Forest. In 2012, 23 of 24 grid-based sites were monitored within three sampling strata sampled under the new Integrated Monitoring in Bird Conservation Regions (IMBCR) effort. These included 8 of 8 grids in the high-elevation strata, 6 of 6 grids in the mid-elevation strata, and 9 of 10 grids in the low-elevation strata. The Forest did not monitor any of the 15 supplemental MIS transects that were established in 2004 under the original Monitoring Colorado Birds (MCB) program, which have been replaced by the grid transects. Based on the IMBCR report for the 2012 survey effort, 81 avian species were detected on the Forest. Species detected include three Region 2 sensitive species, two USFWS birds of conservation concern, and five of six of our avian MIS. With the additional sampling strata and the increase in sample grids from 10 to 25, the monitoring effort now appears adequate to detect desired population trends on all six avian MIS species. However, the regional office provided funding support for some of the additional grid samples, and the Forest should explore additional annual funding to the IMBCR Program to maintain these results.

Monitoring data for mammalian MIS (mule deer and elk) populations for 2012 was again furnished by the CPW. Based on CPW's 1991-2012 population model, one of the four deer DAUs on the Forest meets population objectives, one exceeds, and two remain slightly below objectives. Overall mule deer numbers on the Forest meet the mean population objective established by CPW. For several years previous, mule deer populations had remained consistently below objectives and the Forest conducted meetings with the CPW to determine if habitat might be a factor. The change in mule deer population objectives, established in 2010, now represent more realistic and achievable population objectives based on available habitat. Based on CPW's 1991-2012 population model for elk, all four elk DAUs vary from about 8-26% above population objective. Overall elk numbers on the Forest now exceed mean population objectives by approximately 19 percent, which is a decrease over previous years but may warrant additional attention in some local game management units where potential habitat impacts and conflicts with domestic livestock use may be occurring. The Forest is actively assisting CPW is an elk-collaring program in GMU 80 to help assess the population model being used and the distribution and movement of elk.

Because of key changes in some MIS programs (e.g., Monitoring Colorado Birds Program), lack of habitat information for some species, and population patterns of others (e.g., elk), it is recommended that the Forest-wide MIS status assessment intended for completion in FY13 become a priority work item in FY13-14. This assessment has not been completed to date and remains a need to determine what, if any, changes are needed to improve the MIS program. The status assessment recommended for MIS should also include the following items:

Review and update of the Forest Avian Monitoring Protocol (2005) to incorporate the new IMBCR sampling design and analyze the current sampling effort for sufficiency; improve habitat monitoring and reporting for some avian MIS, especially riparian-willow species that may be influenced by program activities; and

Review big game population status to determine if additional efforts are desired to manage elk populations, assess potential travel management impacts, and to assess what efforts could be conducted to improve habitat conditions, if needed, to better maintain mule deer populations.

In 2012, all ranger districts were successful at providing Forest Plan monitoring information for the wildlife resource. However, district responses varied and suggest that both Forest-level and project implementation monitoring would benefit from increased emphasis. The Forest wildlife biologist will continue to work with the ranger districts to emphasize the importance of the Forest monitoring program. Continued efforts to assess and improve Forest Plan implementation and effectiveness monitoring are recommended, particularly in regards to potential range influences on riparian-willow habitat goals and bark beetle/forest management influences on Forest MIS birds.

Overall, the Forest appears to be meeting the goals and desired conditions for the wildlife resource as intended in the amended Forest Plan. Conservation measures and Forest Plan S&Gs appear to be incorporated into project planning as appropriate.

Fisheries Program. The desired condition for biodiversity is to maintain viable populations of native and desired nonnative species. The following is a summary of the state of the fisheries resource on the RGNF.

An average snow pack on the Forest resulted in good stream flows with good-to-excellent fishing reported on most streams and reservoirs. Fish management activities conducted in 2012 include: sportfish and native fish inventories; sportfish/native fish stockings; habitat evaluations; and a stream culvert replacement. Some of these activities were completed in partnership with BLM and Colorado Parks and Wildlife.

Sport fishing is a major activity on the Forest. The Forest offers a variety of fishing opportunities ranging from high mountain lakes and streams, to rivers and reservoirs. CPW maintains an active hatchery program supporting recreational fishing on the Forest and stocks a variety of native and desirable nonnative fish species. Stocked fish include rainbow trout, brown trout, brook trout, Snake River cutthroat trout, kokanee salmon, and splake. Approximately 350,000 nonnative trout were stocked into Forest lakes and streams this year. Fish inventories on the Forest using electrofishing was conducted on eight streams. Results from these inventories confirmed stable populations of desirable nonnative trout species and a self-sustaining native fish population in Cascade Creek.

Native fish management and restoration is a high priority on the Forest. Management activities completed in 2012 for native fish include population monitoring and evaluation, wilderness stockings, stream crossing inventories and culvert replacement, and stream habitat assessment. Approximately 85,000 fingerling Rio Grande cutthroat trout were stocked into Forest lakes and streams in 2012.

Rio Grande cutthroat trout are currently found in 57 streams and 62 lakes/reservoirs on the Forest, totaling approximately 350 stream miles and 1,900 surface acres, respectively. Rio Grande cutthroat trout populations

are divided into three categories based upon genetic purity: core populations (greater than 99 percent pure), conservation populations (greater than 90 percent pure), and recreation populations (Rio Grande cutthroat trout coexisting with nonnative trout species). Of the 57 streams, 30 of the streams and 3 lakes are considered core or conservation populations and 27 streams and 59 lakes/reservoirs are considered recreation populations. The number of Rio Grande cutthroat trout recreation populations remains fairly constant on the Forest because they are maintained with CPW hatchery stockings.

Eight streams on the Forest support small, introduced Rio Grande sucker populations. Only one viable population of Rio Grande chub is known to exist on the Forest and it is a small population located in the Alamosa River between Silver Lakes and Terrace Reservoir. A supplemental stocking of approximately 17,000 3-inch Rio Grande suckers were released in 3 streams on the Saguache Ranger District and 1 stream on the Divide Ranger District.

Extremely low stream flows during the period from 2001 through 2003, and competition with nonnative species, appear to have had some impact on native fish distribution and abundance on the Forest. Impacts range from less than desirable population parameters, to increased populations of nonnative species, to entire loss of populations. The Forest-wide abundance and distribution of Rio Grande cutthroat trout appear to be stable, although the USFWS listed them in 2008 as a candidate species with a listing priority number 9. This determination was based primarily on impacts from nonnative trout and relatively short occupied stream lengths (not from impacts from Forest-related activities or projects). Self-sustaining nonnative trout populations are widespread throughout the perennial streams across the Forest. Habitat concerns appear to be site specific and not an overall threat to trout populations across the Forest; although some sections of Middle Fork Carnero Creek (native trout fishery) and Road Canyon Reservoir (nonnative fishery) are experiencing degraded conditions that appear to be impacting trout density and biomass.

The information available for the fishery resources on the Forest suggests that when properly implemented, the amended Forest Plan direction, desired conditions, and S&Gs, are effective in protecting biodiversity. Therefore, no changes to Forest Plan direction, desired conditions, or S&Gs are warranted at this time. However, fishery resources should continue to be evaluated to determine any need for change.

Monitoring Requirements

Hazard potential from wildfire will be determined through ocular estimates, fuel transects, onsite inspections, and/or surveys. Areas determined to have high hazard potential from wildfire and high relative resource value will be the focus areas for the fuels management program.

State of the Resource

The fuels resource can best be represented as a component of Forest health. In FY 2012, areas within fire regime 1 (high frequency/low severity) and fire regime 3 (medium frequency/mixed severity) and in condition class 2 or 3 were identified, evaluated, and planned for treatment. Due to Regional/State constraints on prescribed fire implementation as a result of the Lower North Fork incident, the Forest fuels program only treated approximately 680 acres of hazardous fuels with prescribed fire. An additional 147 acres were treated mechanically, 107 of which were WUI acres. Mechanical treatments address the lack of appropriate burn windows, alleviate concerns for burn projects near developments, and maintain the focus on key point #3 of the National Fire Plan. Planning and implementation in these areas has addressed the silvicultural and fuel hazard mitigation objectives. Approximately 2,150 additional acres received secondary fuels treatment, primarily through the timber sale program and forest health projects.

On-going fuels/forest health surveys and evaluations continue to provide land managers with valuable insight into the state of the resource as it relates to the potential for wildland fires to create unacceptable resource impacts. Though some areas have been identified as having the potential for unacceptable resource impacts, the Forest Plan provides adequate direction and needs no significant changes in fire and fuels management.

The February 13, 2009, document "Guidance for Implementation of Federal Wildland Fire Management Policy" and the April 9, 2009, WO memo "Updated Guidance for Implementation of Federal Wildland Fire Management Policy" have been incorporated into the Forest's program. There are still some terminology changes that may need to be addressed regarding terms used in the Forest Plan.

Monitoring Requirements

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.

State of the Resource

Monitoring, based on the results of routine inspections of all facilities listed above, indicates the RGNF is unable to meet general infrastructure maintenance due to lack of personnel and funding.

The RGNF completed a focused effort on dams. As a result, warning systems are being installed on Million Reservoir. In addition, general maintenance work has been completed on 3 other dams.

Current forest plan standards and guidelines are sufficient to meet the needs for general infrastructure.

Monitoring Requirements

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

State of the Resource

The intent of the National Health and Safety Codes and Occupational Safety and Health Administration guidelines were met through monthly safety sessions and daily tailgate sessions. Forest plan standards and guidelines remain adequate.

Monitoring Requirements

Monitoring is based on the condition evaluation for heritage resources discovered during project proposal evaluations or during or after the implementation of the project. In addition, monitoring of selected significant heritage resources, also known as priority heritage assets, not associated with specific project proposals will be implemented and reported. Priority Heritage Asset condition assessments are required under the Heritage Program Managed to Standard (HPMS) Guidelines. Consultation efforts with recognized American Indian Tribes and Nations demonstrating concern for areas of cultural importance will also be monitored and reported.

State of the Resource

The monitoring of several completed projects where heritage resource sites were identified for protection indicates that protective measures were adequate. A few notable projects initiated by the Heritage program warrant mention

Monitoring of the River Springs CCC Work Station (5CN794), a PHA, in 2010 revealed a serious problem with ice dams forming on the Ranger's House that was causing water damage to interior walls. It was also noted that the exterior paint and trim on all the buildings was peeling profusely. To address the impacts, ARRA funding was secured to replace interior dry wall and install heat tape on the roof. Monitoring in 2011 revealed that the water leakage was still occurring in one of the interior rooms. To address the problem, the heat tape was installed higher on the roof and more insulation was placed in the attic. The River Springs Work center was monitored in the spring of 2012 to determine the effectiveness of the work. There are new cracks and peels in the ranger house living room ceiling once again; suggesting the earlier fix is not working. Heritage Staff will need to meet with the District to find a lasting fix.

In 2011, the Creede Clay Mine 5ML329 (PHA) was restored per the Secretary of the Interior's Guidelines for Historic Preservation in partnership with Historicorps and with the aid of ARRA funding. In 2012, Heritage staff worked with the District and Forest law enforcement to establish a Special Closure order around the mine to prevent the public from accessing the site. A barrier fence was also constructed using a local youth corps, to deter entry into the site. It appears that the public is honoring these measures.

In 2012, a well and pipeline were proposed near the eligible Tracy Canyon Site (5SH193), also a PHA. The prehistoric open camp consists of at least 9 thermal features that are eroding into an active gully also near a popular hunter's camp and FSR 850. Late Archaic and Late Prehistoric projectile points have come from the site along with ceramics, and according to the earlist site form, basketry. Heritage staff tested the site to determine the presence or absence of buried cultural materila and to establish a site boundary in relation to the proposed infrastructure. A dispute arose when it was discovered that the well and well and water storage facility would also include a watering trough. The latter was never listed in the original project proposal and would likely result in an adverse effect to the site by drawing and trailing wild and domestic ungulates across it. With the help of District Ranger Jim Pitts and permittee George Whitten, a compromise was devised wherein the watering trough would be located off site.

In 2012, the Pole Creek Cabin (5SH2383) was designated as a Priority Heritage Asset. The site was not adequately recorded in 2005, did not take into account its significance and failed to include several other structures in what appears to be a habitation/mining complex. In 2012, Heritage staff took Venetta Ackerson (80) and her son, Victor Sickles to the cabin to gather information about her family that mined in the area in the 1920s through the 1950s.Ms. Ackerson also supplied photos. Her family's cabin is in good condition and we discussed how Mr. Sickles might help in stabilizing it. In FY14 the site will be fully recorded and re-evaluated as eligible to the SHPO.

In addition to the PHAs mentioned above, monitoring also occurred at the following PHA locations: the Black Mountain Folsom site (5HN55), the Dog Mountain petroglyph site (5RN330), the English Valley Folsom Site (5RN1028), the Ivy Creek Prehistoric Site (5ML633) and the Bunker Site (5SH614).

The monitoring of heritage resources not associated with a specific project and that have the potential to be vandalized will continue to be monitored in compliance with established S&Gs. A review of project-level heritage resource inventory reports for FY 2012 indicates that projects with the potential to impact heritage resources are being inventoried and protective measures are adequate. These occurred during the North Tracy Canyon Well project, the Willow Lake Trailhead Improvements, Fischer/Ivy/Goose Range Allotment

Analyses, Divide and Saguache HPP Wells and Pipeline projects, Black Mesa Vegetation Management, and the Bighorn/Stateline Fuels Reduction project, to name a few.

In 2012, repatriation and reburial was completed for four sets of culturally unidentifiable human remains from the RGNF that were previously housed at the Anasazi Heritage Museum in Dolores, Colorado. The SLV NAGPRA Inter-tribal and inter-agency working group allowed the Ute Mountain Ute to take possession of the remains and rebury two sets on RGNF land near the Natural Arch on the Divide RD using the Farm Bill authority. Because the NPS was not able to rebury the remaining two sets of CUIs, the USFWS agrees to rebury then on the Alamosa Refuge as close to the east side of the Valley as possible where it was thought those two sets of remains came from. The Tribes were very satisfied with the outcomes.

Monitoring Requirements

Monitoring is 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 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, which 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.

State of the Resource

The minerals monitoring program requires the Forest to validate leasing activities as well as S&Gs. There was no oil and gas leasing or development on the Forest in 2012. The Rio Grande National Forest approved one plan of operations for exploration and received numerous notices of intent for mining activities. In addition, reclamation was completed on two of the three units. Reclamation activities from mineral exploration conducted in previous years were monitored.

The continued monitoring of the reclamation associated with the two approved plans of operations from 2009 will be ongoing for multiple years following the cessation of operations. Surface disturbing activities associated with the one approved locatable minerals exploration plan from 2010 include road maintenance and construction, as well as, drill pad construction have been inspected and monitored periodically for operating plan conformance and compliance. Issues associated with the exploration activities have been minimal and the operation is in compliance with regulations and the Forest Plan.

In addition, the reclamation, re-vegetation, and monitoring of abandoned mine sites across the forest throughout the summer and fall of 2012. In the mineral materials program, the Forest Service administers a number of in-service, free-use, and commercial common variety mineral operations. All are in compliance with Forest Plan S&Gs.

Monitoring Requirements

Monitoring of the location and extent of noxious weeds will be reported based on the evaluation of control methods on infested areas on the Forest.

State of the Resource

Noxious weeds are a persistent concern on the Forest. Inventories and control were conducted in FY 2012 on a very limited scale due to a continued lack of NFVW noxious weed budget. Those species that have increased or have been inventoried more thoroughly are: toadflax, oxeye daisy, short whitetop (also known as

hoary crest), Canada thistle, black henbane, Russian knapweed, and downy brome (also known as cheatgrass). The Forest treated approximately 250 acres of noxious weeds in 2012.

Prior to 2010 the Forest Plan noxious weed management objectives were being met, but due to future budget declines, we probably will not meet the objectives. At this time, there is no need to make changes to the Forest Plan noxious weed management direction. We completed working with the San Juan National Forest to update the existing 1996 weed treatment Environmental Assessment (EA) which was a joint effort between the two forests in 1996. The Sufficiency Determination and Supplemental Information Report was signed July 17, 2012.

There continues to be an increase in noxious weeds, in particular cheatgrass (downy brome) and black henbane within the PLC. These and other species will spread rapidly if we are unable to resume an aggressive treatment program in the very near future.

Monitoring Requirements

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 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 EAs and allotment management plans for each allotment. Range utilization will be reported based on the results of routine field analysis.

State of the Resource

Rangelands are being managed for a variety of seral stages, with most being managed for upper mid-seral to high-seral status. Continued inventory of rangelands conducted in FY 2009 indicated that while there are a variety of seral stages found throughout the Forest, there is an imbalance of seral-stage classes with 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.

The 2012 grazing season began with the Forest and adjacent BLM lands experiencing a below average rainfall. Across the forest, adjustments for drought were required. In many cases, reductions in use occurred through reductions in numbers or reductions in season of use. Future reductions are expected to continue as long as drought conditions persist.

The range program has determined there is a need for a lead in the data management portion of the program since we are not up to date on several of our required data bases. We have assigned one range conservationist to take the lead and work with the other offices to help update and maintain the NRIS, Infra, and FACT's data bases. This will decrease the individual's other range-related work, but it is important to remedy several of the deficiencies we have identified in the range program.

Overall, the Forest Plan objectives for range are being met and no changes or adjustments in the Forest Plan have been identified.

Monitoring Requirements

Developed Recreation. Developed recreation sites are monitored to assess: (1) visitor expectations, trends, and customer satisfaction; and (2) quality and safe facilities. Visitor use and expectations will be monitored

and reported based on customer surveys and/or customer comment cards. Developed recreation site monitoring will be based on facility condition surveys and hazard inspections. Wolf Creek Ski Area monitoring will be done through approved summer and winter operating plans. Special uses will be monitored through permit compliance and evaluations. Developed sites will be monitored for use compared with projected outputs in the Forest Plan. Developed sites will be evaluated relative to Forest Plan goals and objectives and S&Gs.

Dispersed Recreation. The Forest will monitor effects of its travel management plan, including all-terrain vehicle game retrieval and snowmobile use, during routine summer inspections, winter inspections, and fall big game hunter patrols. The Forest will monitor trail conditions and trail needs based on trail inventories and logs. Dispersed recreation will be evaluated relative to Forest Plan goals and objectives and S&Gs.

Unroaded Areas. Monitoring will be reported based on a representative assessment of two backcountry areas per year. 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). Backcountry areas will be evaluated relative to Forest Plan goals and objectives and S&Gs.

Wild and Scenic Rivers. Monitoring will be reported based on the assessment of resource management activities that occur within one river corridor every 3 years. River corridors will be evaluated relative to Forest Plan goals and objectives and S&Gs every 3 years.

Wilderness. Monitoring will be reported based on the evaluation of wilderness management thresholds (specific indicators) and appropriate management actions to determine if wilderness S&Gs are being met. Wilderness areas will be evaluated relative to Forest Plan goals and objectives and S&Gs.

State of the Resource

Minimal information was available during the construction of this report. No recommendations or needs for change for the forest plan were recommended/identified during the course of the year.

Travel Management: The Forest continued to update the INFRA database to accurately reflect previous travel management decisions in preparation for updated publication of motor vehicle use maps. The ranger districts are continuing to review and update the maps for the public annually.

All-terrain Vehicle Big Game Retrieval: The Forest continued efforts to monitor ATV big game retrieval in FY 2012. Informal interviews were conducted with hunters to determine the extent to which they understood the afternoon big game retrieval policy. No resource impacts were observed as a result of legally retrieving game. Resource impacts were observed from the use of ATVs on the Forest, but it could not be specifically attributed to afternoon big game retrieval.

Unroaded Areas: The Governor of Colorado submitted a roadless area petition to the Secretary of Agriculture in 2007 which was accepted. An EIS and rule proposal was initiated and completed in 2012. The Forest continues to work to correct errors to the inventoried roadless area boundaries.

Wilderness: Wilderness monitoring took place on the South San Juan and the Weminuche Wilderness area. Air quality or atmospheric conditions were monitored through the high lake monitoring program. Campsite inventories occurred as well as encounters and trailhead registration monitoring. Overall, the Forest Plan recreation and wilderness objectives are being met.

Noxious weeds are addressed in the Chief's 2007 "Ten Year Wilderness Stewardship Challenge." The South San Juan and Weminuche wilderness areas have approved noxious weed treatment plans. These plans were reviewed to ensure continued compliance with the Chief's challenge.

Monitoring Requirements

There is no specific legal requirement to monitor progress on research and information needs. However, the Forest believes it is wise to identify important needs and to track them in the monitoring report.

State of the Resource

Progress is continuing on (1) Forest roads inventories, (2) collection of faunal occurrence data for inclusion in the Forest Service corporate database, (3) updating and improving the infrastructure (INFRA) database, and (4) range condition baseline data. Due to the vacancy associated with our Forest Ecologist/Botanist position, a monitoring information gap is developing regarding our floral and special plant community responsibilities, and our forest old growth survey program.

Monitoring Requirements

Monitoring will be reported based on inspections of established research natural areas every 5 years.

State of the Resource

Initial work began on an initial plan to restore fire to the ecosystem in the Hot Creek RNA. Forest inventory, fuels data, and wildlife baseline information was collected in this RNA in 2012. No additional RNAs were visited 2012.

Monitoring Requirements

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

State of the Resource

Minimal information was available during the construction of this report. No recommendations or needs for change for the forest plan were recommended/identified during the course of the year. Approximately 198 miles of classified and unclassified roads have been decommissioned since 1996.

Monitoring Requirements

Monitoring of scenic resources will be reported based on a determination of disturbance using photographs, onsite inspections, and aerial photographs.

State of the Resource

Minimal information was available during the construction of this report.

Forest areas were monitored for scenic resources. In order to obtain scenic resources objectives, a project should comply with scenic integrity objectives within 2 years after project implementation. These areas will continue to be monitored for changes.

There is a need to make changes to the Forest Plan's scenic resource direction during the next Forest Plan revision to update the S&Gs.

Monitoring Requirements

The protection of soil productivity is monitored based on the requirements of 36 CFR 219.12(k)(2). The Forest uses several tools for soil monitoring, including the collection and analysis of core soil samples, erosion modeling, ocular estimates, transects, soil health assessments, investigations, and professional judgment. Soil health assessments have been completed to determine whether long-term soil productivity and soil health were maintained or improved. Management actions and effects are evaluated using existing Forest Plan S&Gs. Soil evaluation techniques were employed on ground-disturbing projects with potential for high soil-erosion, mass-movement hazards, or other soils concerns.

State of the Resource

The Forest soil resource is monitored through project evaluations and soil health assessments. Soil health is the assessment of the current soil health condition and its ability to sustain the potential natural community of vegetation over the long term. The Forest uses the established Forest Plan S&Gs as a basis for evaluation. The three types of soil health ratings are as follows: (1) properly functioning, (2) at-risk, and (3) impaired. Properly functioning means that soil physical, biological, and chemical properties are functioning in a manner that maintains soil productivity. At-risk means that some soil feature has been changed to where there is a risk of losing productive capacity through erosion, nutrient losses, or loss of surface cover. Impaired means erosion has been occurring at accelerated rates or there are unmitigated impacts, such as compaction.

In FY 2012, monitoring for range was completed within the cattle grazing allotments of Carnero, Roaring Fork, South River, Alamosa and Hot Creek allotments. Monitoring was also completed within the Table Mesa sheep grazing allotment. Generally soil conditions in range land were acceptable with small areas at risk, usually associated with riparian corridors. Uplands generally are properly functioning with some trailing associated compaction.

Harvest units 2 and 6 of the Bennet timber sale, part of the Burro Blowout analysis were assessed for post-harvest soil conditions. Conditions were found to approach forest standard but did not exceed. This was primarily due to the careful layout of the sale unit and implementation of the sale and associated BMPs by the timber staff.

Monitoring Requirements

Monitoring will be reported based on on-site inspections of designated special interest areas every 5 years.

State of the Resource

No Special Interest Areas were visited in 2012 and no data was collected concerning this monitoring item.

Monitoring Requirements

Restocking of final-harvest areas is required by 36 CFR 219.12(k). Monitoring consists of surveys conducted 1, 3, and 5 years after final harvest. First-year surveys are onsite inspections, while surveys after 3 and 5 years are statistically valid plot-inventory exams.

36 CFR 219.12(k) requires that all Forest lands be examined at least once every 10 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

Forested lands across the Forest are generally assumed to reflect composition, structure, and pattern with a natural range of variability as described in Appendix A of the Final Environmental Impact Statement for the 1996 Revised Land and Resource Management Plan.

The current insect epidemic affecting forests across the Rocky Mountain Region, including the Rio Grande National Forest, is not unusual. According to Romme *et al.* (2006)[1] it is not unprecedented to have roughly a 100-year period of low insect activity followed by an extensive insect outbreak. Furthermore, the initiation of bark beetle outbreaks is often associated with drought, which the Forest experienced in the early 2000s.

Some short-term human influences have affected, and are still affecting, the composition, structure, and pattern of forested communities, particularly lower-elevation forest cover types that typically experience higher rates of fire return interval disturbance, for example. Human influences can include either management action, such as timber harvest, or inaction that allows other disturbance factors to dominate across the landscape.

Onsite field monitoring during the spring-to-fall field season of 2010 occurred primarily within past timber sale boundaries, or other areas being planned for future timber sales, and are discussed in the following sections.

Restocking: Reforestation of areas harvested since the mid-1970s, when the Forest changed from mostly even-aged clearcutting to other regeneration harvest systems, such as two-aged shelterwood and uneven-aged management systems, have been consistently successful with natural regeneration establishment occurring from retained seed tree and surrounding seedwalls sources. Artificial planting after clearcutting has also been consistently successful. The naturally developing annual addition of germinants that commonly develop into seedlings and then saplings, etc., often referred to as advanced regeneration in more mature stands, continues to add to stocking levels in most conifer types regardless whether stands were naturally regenerated or planted. Most conifers begin to develop cones with viable seed by about 20 years of age. The determinant whether trees establish in these smaller openings or not is largely controlled by available growing space, competition factors (i.e., sunlight, moisture, and nutrients), and the silvics of the tree itself (i.e., tolerance or intolerance to shade). Where supplemental stocking has been needed, either to meet species diversity

[1] Romme, W.H., J. Clement, J. Hicke, D. Kulakowski, L. H. MacDonald, T. Schoennagel, and T. T. Veblen. 2006. Recent forest insect outbreaks and fire risk in Colorado forests: a brief synthesis of relevant research. Colorado Forest Restoration Institute, Fort Collins, CO.

objectives or the 5-year reforestation timeframe requirement specified in NFMA, artificial planting is prescribed, planned and implemented. It should be noted that the 5-year timeframe is a legal requirement, not a biological capability of some tree species whose reforestation timeframes are longer and largely dependent on "good seed years."

Recently, only the Million Fire salvage sale has required some artificial planting of locally adapted tree species to meet adequately stocked conditions, resulting from the landscape-level deforestation caused by the Million Fire in 2002 that impacted over 11,000 acres.

A recent need has been identified to assess the development and stocking levels of seedlings/saplings within group selection harvest units across the Forest to ensure they are satisfactorily progressing as prescribed in silvicultural prescriptions.

Table 1 below lists projects/sales where stocking surveys were needed and/or conducted to assess reforestation success, whether reforestation was by natural regeneration or artificial planting, as well as the percent survival by survey-year type. In general, reforestation progress is proceeding as planned. Where stocking anomalies occur that affect the planned trajectory to certification of reforestation establishment, appropriate measures (e.g., planting) would be undertaken to ensure stands are adequately stocked within the 5-year reforestation timeframe requirement. Example of anomalies include mortality caused by animal damage, insects, disease, other disturbance, or other changed conditions such as those resulting from a change in climate, or wildfire. An assessment of suitable and adequate stocking occurs throughout the life of managed stands.

Previous stocking survey and survival percent accomplishments is displayed in table 1, along with future planned surveys.

Table 1. Stocking survey and survival percent table, 2010

Wolf Beetle Salvage	289		NR	TBD	TBD	TBD	Sale is still active with all units being treated.
Grouse Salvage	810		NR	2011 Rng= X=	2013 Rng= X=	2015	Sale is still active with all units being treated.
Marble Beetle Salvage	84		NR	2011 Rng= X=	2013 Rng= X=	2015	
Long Lost Cabin	1,341	all	NR	2010 Rng=39–94% X=	2012	2014	First year assessment not yet completed.
Little Kerber Salvage	83	All	NR	2010 Rng=0–22% X=	2012	2014	Need for planting will be assessed in 2012. Ongoing mountain pine beetle infestation continues to impact stocking levels.
Million Fire Salvage [1]	160	4	2008 fall plant	2009 Rng=12–76% X=59%	2011 Rng= X=	2013	
Twister II Salvage	261		NR	2009 Rng= X=95%	2011 Rng= X=	2011	
November Salvage	25	5	NR	2008	2010 Rng= X=	n/a	Certification of NR w/ site prep in 2010.
Million Fire Salvage	748		NR	2008 Rng= X=	2010 Rng= X=100%	n/a	Certification of NR w/o site prep
Black Mountain Beetle Salvage	672		NR	2008 Rng= X=	2010 Rng= X=	2012	Walkthrough survey conducted in 2008. General observations and no data gathered. Appeared adequately stocked.
Drill Pad Salvage	77	1	NR	2008 Rng= X=	2010 Rng= X=	2012	48 acres planted in 2005. Replanted 25 acres in 2007.
Drill Pad Salvage	48	1	NR	2008 Rng= X= 35%	2010 Rng= X=	2012	Certified as adequately stocked. Aspen sprouting ongoing.
Shaw Lake Salvage	241		NR	2008 Rng= X=80%	2010 Rng= X=80%	2012	40 acres of walkthrough completed in 2010.

Finger Mesa Salvage	498		NR	2008 Rng= X=74%	2010 Rng= X=	2012	
Buffalo Pass Salvage	164		NR	2008 Rng= X=	2010 Rng= X=	2012	
Twister Salvage	60	5	NR	2006 Rng= X=	2008 Rng= X=	2010 Rng=67–91% X=79%	Certified as adequately stocked.
Drill Pad Salvage	17	1	NR	2006 Rng= X=	2008 Rng= X=	2010 Rng= X=26%	Aspen sprouting ongoing. Will assess in 2011.
Million Fire Salvage	1,985		NR	2005 Rng= X=	2007 Rng= X=	2009 Rng= X=100%	Certification of NR w/o site prep

[1] A combination of poor planting stock, heavy competition from grass and forbs, or harsh planting sites attribute to the poor survival rates in some of the units.

Source: Annual Forest Health Protection Report submitted to the Gunnison Service Center, on file at the Headquarters of the Rio Grande National Forest, Monte Vista, Colo.

Harvest Openings and Size of Openings: Harvest openings after the enactment of NFMA in 1976 have been designed to be less than the 40-acre limit set for the Rocky Mountain Region. Past openings exceeding the 40-acre limit generally trace back to clearcutting in the 1960s and early 1970s, and prior to enactment of NFMA. The vast majority of these pre-NFMA harvested areas is adequately stocked with sapling or pole-sized trees and are no longer determined to be openings.

Past harvest units are periodically inspected during routine silvicultural monitoring surveys to assess stand development over time and to ensure they remain on planned trajectories to meet desired stand and landscape conditions outlined in site-specific silvicultural prescriptions and described in the Forest Plan. Any significant change potentially affecting stand development is brought to the attention of the attending silviculturist for potential treatment remediation.

Timber Suitability: The Forest amended the Forest Plan in 2000 with amendment #4 to address timber suitability. The suitability amendment took effect in 2003 after USFWS consultation with the updated Forest Plan biological assessment. Timber suitability has been, and will continue to be, evaluated during the landscape and project-level planning phase for all timber sales.

The Del Norte Peak Blowdown Salvage EA Decision Notice was signed in February 2010 and the Rio de los Pinos FEIS Record of Decision was signed in April 2010. NEPA planning and analysis continued on the proposed Big Moose Vegetation Project EIS begun in 2008, with a decision expected in March 2011. Determinations of suitability for these projects were completed in previous years, which allowed the projects to move forward to the NEPA analysis stage and finally a decision. A NFMA assessment and determination of suitability was conducted on both the Black Mesa and Cumbres Vegetation Projects in late 2010, both new starts. NEPA was completed for Black Mesa in FY 2013 and is expected in the first quarter FY 14 for Cumbres.

Insect and Disease Infestation: Forestry personnel have been actively monitoring insect and disease activities across the Forest, with the assistance from entomologists and pathologists working out of the Gunnison Forest Health Protection Service Center in Gunnison, Colorado. While there has been some success in control activities, the overall condition of forest health is declining with serious levels of recent insect outbreaks, likely related to the extended drought and mild winter temperatures. Additionally, many of the areas with insect and disease problems occur in the habitat and habitat linkages for the TES Canada lynx. Control strategies for effectively treating stands negatively impacted by insect and disease populations within lynx habitat are severely limited.

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

- Continuing Forestwide assessments of insect and disease infestation should occur to address the expansion of the current spruce bark beetle epidemic, as well as effects from climate change.

5. Interdisciplinary Monitoring Team Contributors

Theodore "Lary" Floyd, *Assistant Fire Management Officer*
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Appendix: Rio Grande National Forest Monitoring and Evaluation Accomplishments

This appendix synopsizes the monitoring actions and results for FY 2012. The monitoring items listed below correspond with the components listed in table V-1 from the 1996 revised Forest Plan, as amended.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
Monitor and evaluate (M&E) visibility, lake chemistry, and terrestrial systems [36 CFR 219.27 (a)]. M&E burn plan [36 CFR 219.27 (a)].	(1) Photographic documentation of visibility; coordinate with NPS [P. Reinholtz].	Great Sand Dunes National Park.	Visibility and particulate monitoring was completed.	No changes in the Forest Plan recommended.
	(2) Chemistry of most sensitive lakes [K. Garcia, J. Fairchild, Lisa McClure, K. Murphy, P. Reinholtz].	3 lakes in the Weminuche Watershed Wilderness Area (WA); 2 in the South San Juan WA; 2 in the La Garita WA; and 1 in the Sangre de Cristo WA.	Sampling was completed at all 8 lakes in 2010. These results are available to define current good conditions and appropriate control technology when new major polluting sources are proposed that could impact these wilderness areas.	No changes in the Forest Plan recommended.
	Visual verification of smoke dispersal [L. Floyd, P. Reinholtz] and compliance with Colorado APCD permit [L. Floyd].	Prescribed burn project locations on all 3 ranger districts.	Appropriate conditions existed on all burn projects, therefore no adverse smoke impacts occurred and smoke dispersal was adequate. No complaints were received from the public.	No changes in the Forest Plan recommended.
Assess air resources relative to (a) Forestwide goals, objectives, S&Gs; (b) MA prescription objectives, DCs, and S&Gs; (c) MA prescription allocations and monitoring methods [36 CFR 219.12 (k)].	From monitoring results, conclude whether S&Gs and regulations are being followed, and if desired conditions are being met [P. Reinholtz].	As a result of monitoring all of the above sites.	Forest management activities are following S&Gs; desired conditions are being achieved.	No changes in the Forest Plan recommended.
Monitor and evaluate (M&E) visibility, lake chemistry, and	(1) Photographic documentation of visibility; coordinate with NPS [P. Reinholtz].	Great Sand Dunes National Park.	Visibility and particulate monitoring was completed.	No changes in the Forest Plan recommended.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
terrestrial systems [36 CFR 219.27 (a)].				
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: P. Reinholtz].	Timber sales: Evaluation of the Cumbres and Black Mesa Projects began in 2010.	Two new large timber project analysis areas were initiated. No new watersheds of concern.	From past work it appears that concern levels for total watershed disturbance have been set at a conservative level to ensure adequate watershed health. No changes in the Forest Plan recommended.
M&E stream and riparian health [36 CFR 219.27a].	(1) Level III stream assessment on 1 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 [hydrologists: P. Reinholtz, N. Tedela].	As described in the next column.	Stream health assessments were completed on several streams during range EA analysis. Reaches with high bank alteration or other problems were noted on creeks and noted in the "State of the Resource" section. Historical and long-term impacts, including increased stream width and hummocks, remain to varying degrees on these creeks. *Divide RD Range EA*: Road/Sawmill Canyon, Long Canyon, House Canyon, Crooked Creek, Shallow Creek, Sawmill Gulch, Horsethief Creek, Sevenmile Creek, and Kid Gulch. *Saguache Park Range EA*: Jakes Creek, Fourmile Creek, Elk Creek, East Fork Buck Creek, Horse Canyon, Bear Creek, Johns Creek, and North Fork Saguache Creek. *Conejos Peak RD Range EA*: Piedrosa Creek, Hot Creek, Positio Creek, Pasture Creek, Deer Creek, and Cat Creek. Pass Creek continues to be fully protected from Wolf Creek Ski Area activities.	Stream health direction in the Plan is appropriate. No changes in the Forest Plan recommended.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			East and West Willow creeks and Windy Gulch were monitored as part of the Willow Creek mined land reclamation project. The Forest is participating with the Willow Creek Reclamation Steering Committee.	
	(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 [hydrologists: P. Reinholtz].	Leopard Creek and Middle Creek above Love Lake.	Riparian conditions have improved, but bank stability issues remain. Alteration guidelines likely exceeded at times, slowing recovery.	No changes in the Forest Plan recommended. Continue monitoring to evaluate livestock use on recovery and recommend management changes if necessary.
	(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 [hydrologists: P. Reinholtz, N. Tedela].	California Gulch and Cave Creek within the South Saguache analysis area.	Stream health in California Gulch and Cave Creek drainages was assessed for range recission. Riparian and stream health was found to be robust with some at risk areas due to sediment and stream width issues. Road erosion contributes sediment load. Width data was collected at California Gulch to monitor long-term trends.	No changes in the Forest Plan recommended.
Assess aquatic resources [36 CFR 219.12 (k)].	Visually determine if S&Gs have been implemented and are achieving the desired conditions [hydrologists: P. Reinholtz, N. Tedela].	Timber, range, and watershed specialists routinely evaluate past and ongoing projects for compliance with Forest Plan direction.	Implementation monitoring occcured during timber sale administration including: Wolf Beetle Timber Sale, Burrow-Blowout Timber Sale, Rock Creek Timber Sale; S&Gs effective in protecting stream channels.	No changes in the Forest Plan recommended.
Monitor change in occurrence of selected native species (fine filter) [36 CFR 219.27 and .19 (6)].	(a) Ripley milkvetch: use plots and transects [CSU Ph.D. candidate: J. Burt; ecologist: D. Erhard].	Hick's Canyon and Terrace Reservoir.	The assessment work involving Astragalus ripleyi population viability was completed in FY11. No additional work involving native plant species was completed in FY12.	No changes recommended in the Forest Plan. A void in expertise and information regarding native and special plant communities had developed due to the vacancy associated with our Forest Ecologist/Botanist position.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
	(b) Rio Grande cutthroat trout, chub, and sucker (native fish population monitoring); utilize electrofishing and gill nets. [Forest fish biologist: B. Wiley; FS/BLM seasonal employees, CDOW].	Numerous streams and lakes across the Forest are monitored for population status, genetic purity, and whirling disease.	Rio Grande cutthroat trout populations monitored include Lake Fork Conejos, Osier Creek, Adams Fork Conejos and Wolf Creek. Nonnative trout fisheries monitored include House Canyon, Crooked Creek, Four Mile Creek, Long Canyon, Ivy Creek, Sheep Creek, Conejos River, Rio Grande River, Mill Creek, Road Canyon Reservoir, Rio Grande Reservoir, Blue Lake, and Lake Ann. All population data were collected following CDOW protocols and entered into CDOW database. CDOW "2010 Fisheries Inventories Rio Grande Basin" includes detailed analysis for these populations (unpublished). A stream culvert that was a fish migration barrier was replaced on Middle Fork Carnero Creek. Another fish migration barrier was repaired on Wolf Creek.	No changes in the Forest Plan recommended.
	(c) Boreal toad: monitoring and survey [CDOW, FS].	5 existing breeding sites were monitored (Jumper Crk, W.Trout Crk, Little Squaw Crk, Goode Lake, Fisher Crk). No new sites documented . All 5 sites monitored by USFS. 5 new sites surveyed by CPW Dual Frame Random Sites Occupancy method. Includes 3 sites on Divide RD (Beaver Crk, E. Ute Crk, Red Mtn Crk), 1 site on CP RD (Adams Crk), and 1 site on SAG RD (MF Saguache Crk). All sites negative. No surveys conducted on CP or SAG RDs.	*Known Sites: West Trout Creek visited 1 time for the first time no reproduction was noted. 2 adults present. 3 visits were made to the Jumper Creek site, all negative. Site has tested chytrid positive and there are concerns that toads have vansihed. Crew conducted habitat improvement by manually digging out the pond area. Goose Lake site visited 3 times. Up to 5 adults noted, 100-500 tadpoles notes early. However, site dried up and late visit suspects that no successful reproduction occurred. The Little Squaw Creek site was visited twice in 2012, with 2 ad. males and 1 ad. Female noted. No reproduction documented. 2 visits to Fisher Creek Kettle Pond site yiedled 2 adults, I sub-adult, and approx. 6 tadpoles. Fisher Crk represents the only site on the Forest with successful reproduction documented in 2012.*	No changes in the Forest Plan recommended. Should be an emphasis species for continued monitoring in future years. The fact that 3 of the 4 occupied toad sites on the Forest are known to be positive for chytrid fungus (Batrachochytrium dendrobatidis) or "Bd" remains a concern and needs further evaluation to determine if additional monitoring and/or protection efforts are needed. Additional educational awareness is recommended concerning Bd and the 2001 Interagency Conservation Agreement for this species. Forest should explore possible reintroduction of toads at

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
				approved locations.
	(d) Peregrine falcon: ocular surveys of nests [CDOW, FS].	All known sites on the RGNF . 10 known eyries on Forest and 3 on others on public lands within or adjacent to Forest administrative boundaries.	Of 10 known exisitng sites, 9 were monitored by FS, effort includes all districts. No CPW monitoring reported. Of the sites monitored, 1 was active with 1 additional possibly active with birds present. 1 known to produce young. 1 new active eyrie located in lower Alamosa Canyon on BLM or pvt. Land. Cursorary monitoring also noted single peregrines on the CP RD (near Green Lake & at Red Mtn).	No changes in the Forest Plan recommended. Trend reported is that several historically active sites have recently become vacated and/or the eyrie has just moved so more time is needed to adequately search for the new eyries. Time consuming effort. No R2 monitoring protocol available. Need to adjust R6 protocol for Forest.
	(e) Southwest willow flycatcher (SWFL) [FS, USFWS, CDOW]	Mapped habitats on RGNF. Project-specific sites for range allotments were surveyed on a project-specific basis.	No monitoring or field surveys reported in FY12. No sightings on FS lands. HCP finalized for SLV pvt lands which involves BLM.	No changes in the Forest Plan recommended. Recommended reminder to District Rangers that we still have survey requirements for this species. Recommend new effort to work with FWS to remove this species from the Unit Species list for the Forest.
	(f) Black swift (BLSW): surveys of nests [RMBO].	All sites on the RGNF every 3 years. 26 known or potential sites Forest-wide, including 1 new discovered on the Divide RD (EF Red Mtn Crk Falls); sites are located on all 3 ranger districts. One new site located in 2011, bringing the total to10 known breeding sites out of 20 historic or potential sites known on the RGNF.	Except for the local BLM Zapata site, no information on black swift surveys was available from the RMBO in 2012. In 2012, 4 of 26 sites surveyed Forest-wide. Attempts to get to 2 other sites on CP RD unsuccesfull. Summary: the CP RD attempted to survey 2 of 9 sites, survey unsuccesful. The Divide RD surveyed 4 of 7 sites, including the new Red Mtn Crk site. The SAG RD did not attempt surveys at any of the 8 sites on the district. Outcome: 2 of the 4 sites surveyed were active on the Divide RD. This includes the new site at EF Red Mtn Crk, with 1 nest documented. A local site on adjacent State/BLM lands was again used for banding of adults and young for a	No changes in the Forest Plan recommended. However, RMBO is no longer actively monitoring BLSW on the Forest and the criteria in Table V-1 are not being met. The Forest will attempt to monitor 2-3 sites per disrtrict per year, based on funding. Recommend a long-term solution and funding to meet Forest Plan monitoring requirements.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			long-term assessment of productivity and survival.	
	(g) Bats: surveys [CDOW]	CDOW and USFS bat surveys of known mine locations and sample sites on the Forest.	In 2012, USFS Region 2 continued the region-wide emergency closure regarding human entry into caves and mines to help prevent the spread of white-nose syndrome (WNS) into local bat populations. As of 2012, WNS has not been detected in Colorado. In FY 2012, local surveys for bat species did not occur on Forest and no additional information was provided. However, the Forest did continue to implement a program and database to document all past mine closures with bat gates. Interagency protocols to continue bat inventories and monitor for WNS are currently being developed.	No changes in the Forest Plan recommended. Additional NFIM funding recommended to supplement the bat inventory program and continue the effort to monitor for potential WNS. Need for the Forest to participate in 1-2 AML sites for acoustic monitroing for WNS purposes.
	(h) MIS birds [FS and RMBO]	The Forest is included in the IMBCR program implemented by RMBO. In 2011, the Forest grid samples were split into 3 elational stratum involving 25 grid samples. 2012 completion involved 24 of 25 grid samples including 8 of 8 high-elevation, 6 of 6 mid-elevation, and 9 of 10 low-elevation samples. Both the RO and Forest paid for additional samples to boost sample size. The 15 supplemental transects associated with the original MCB program on the RGNF were not monitored in 2012. Project-specific inventories continued to be conducted on the RGNF.	The RMBO conducted the third year of surveys for the MCB program using the new grid design on the RGNF. In 2011, grids were sampled based on 3 strata based on elevation to allow for better adjustment to detect MIS birds. None of the Forest supplemental transects were monitored. Based on the 2012 MCB Report, 81 avian species were detected on the Forest. These include 3 R2 sensitive species, 2 USFWS bird of conservation concern, and 5 of our 6 avian MIS. With the addition of new sampling strata, population information is now being provided on all avian MIS for the Forest. Project-specific inventory results are incorporated into project analyses and data are recorded in unpublished reports and internal databases, such as NRIS Wildlife. Although variable by location and project type, presence of MIS avian	No changes in the Forest Plan recommended. The grid-based MCB program was stratified and sampling was increased from 10 to 25 grid plots. This amount of sampling is recommended for the Forest to attain a sufficient samplie size for our avian MIS and will require additional continued funding to achieve. This needs recognition in Forest Plan Appendix A. The Forestwide MIS status assessment scheduled for FY12 was not completed due to other priority work. The need for this assessment remains and should be carried over to FY13.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			species were confirmed on proposed project sites on all ranger districts.	
	(i) MIS bird habitat [FS].	Available habitat on the Forest as estimated based on species habitat requirements, species habitat models, and/or landtype associations (LTAs); habitat availability is ground-truthed at the project level.	Habitats for most MIS and FS sensitive bird species have been modeled to establish an estimated baseline for avian MIS. These habitat models and other GIS data sets were updated in 2011 and are available for use during project-level surveys and analysis. However, knowledge of use and acceptance is not being fully utilized. Site-specific habitat availability and occupancy was documented through general project inventories. Design criteria were included in project NEPA documents and included snag protection/signing, and awareness of ground-nesting birds during presribed fire and other project implementation. Difficulties in defining and assessing the desired habitat condition for willow-riparian associated MIS remains a need, with one district reproting that ties b/t the current grazing utilization allowance and standards for riparian birds is unclear. The extensive canopy cover change occurring on the Forest within the spruce-fir zone warrants additional efforts in regards to avian species of concern.	No changes in the Forest Plan recommended. The Forestwide MIS status assessment scheduled for FY13 was not completed due to other priority work. The need for this assessment remains and should be carried over to FY14. Attention should be given to preparing for and phasing into the new 2012 Planning Rule for future Forest Plan revision.
	(j) Deer and elk [CDOW].	CPW conducts population and harvest surveys by game management units (GMUs). CPW models population estimates by data analysis units (DAUs).	Population estimates for mule deer in the Forest's 4 DAUs for 2011 are provided by CPW. Based on the 1991–2012 data, 1 deer DAU meets population objectives, 1 exceeds, and 2 remain below objectives. Overall mule deer numbers on the Forest meet the mean population objectives established by the CPW. Population estimates for elk in the Forest's 4 DAUs are provided by the CPW. Based on the 1991–2012 data, all	No changes in the Forest Plan recommended. A new study in E-32 is being undetaken by CPW to test the existing population model. Continued collaborative work with CPW should continue to assess the model and provide input to possible elk population changes, as needed. This need could be evaluated in the

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			elk DAUs are above population objective. Overall elk numbers on the Forest exceed mean population objectives by approximately 19%, which is a decrease over previous years but a 3% increase over 2011. This may warrant attention in some local game management units.	MIS staus assessment still desired for the Forest.
	(k) Deer and elk habitat [FS]	Habitat condition is evaluated on a site-specific basis by project. Overall trends are evaluated at the Forest level in concert with CPW.	General winter range assessments were conducted on 2 of 3 ranger districts, with Project Design Criteria included in at least 2 prescribed fire projects. Post-treatment montoring of previous wildlife enhancement projects (mahogany pruning, hydroaxe, prescribed fire) was again accomplished on the Divide RD, with good vegetation and/or use responses noted. Over 640 ac. of habitat improvement was completed for deer/elk habitat improvement in 2012, with $71,376 in partnership funding utilized. Road density was not considered a major factor on habitat in the Forest Plan. Mule deer and elk habitat, based on road densities, generally are considered in the mid-range Forestwide, but could be variable on a site-specific basis by project. No ranger districts reported road densities as a primary concern for big game species. However, there is a lack of analysis regarding road density responses from deer and elk. One district reports that winter range S&Gs are not often followed in regards to livestoc grazing, One district reports that increased off-road vehicle use and potential disturbance, particualry from snowmobiles, is increasing as an issue and conflict with big game winter range S&Gs.	No changes in the Forest Plan recommended. The Forestwide MIS status assessment scheduled for FY12 was not completed due to other priority work. The need for this assessment remains and should be carried over to FY13. Recommend additional education to range personnel regarding winter range livestock S&Gs. Recommend discussion and resolution between recurring livestock and range issues in regards to Forest Plan S&Gs, goals and objectives. Recommend evaluation of potential conflict b/t off-road veicles and winter range S&Gs, particularly the increasing use of snowmobiles.
Monitor the change in selected species habitat (coarse filter)	(a) Other EIS special-status plants. Photo interpretaion site visits, GIS, satellite imagery	Special-status plants are at various sites over the Forest.	There was no work regarding this crietria in F12 due to Forest personel vacancies.	No changes in the Forest Plan recommended in previous years.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
[36 CFR 219.27].	[ecologist: D. Erhard].			
	(b) Snag-dependent species [FS].	Species and snag inventories are conducted at the project level. Habitat is Forestwide by cover type.	There are at least 63 wildlife species in Colorado whose numbers are strongly associated with snag habitat. Surveys and observations of snag-dependent species were conducted in conjunction with some proposed projects, particularly timber sales and fire projects. All districts reported that the desired conditions for snag habitat appear to met, although one district notes concern about ponderosa pine snags due to firewood cutting. At a landscape perspective, snags continue to be extremely abundant in the spruce/fir zone due to bark beetle mortality. Local data were also collected during the IMBCR program. Unusually high numbers of species such as American three-toed woodpeckers continued to be noted in association with bark beetles in spruce-fir forest types. Habitat monitoring is scheduled every 5 years.	No changes in the Forest Plan recommended. Recommend continued educational outreach to the timber program and public regarding snag retention requirements in timber sales and during firewood cutting operations. Ponderosa pine systems remain the primary snag component most heavily influenced by the firewood program. Complete Forestwide monitoring assessment for snags in 2014 in association with MIS for ponderosa pine.
	(c) Animal TES except those addressed above and those that can be covered under the riparian wetland objective [FS].	Species inventories by project, in associaton with the Forest I&M program, or in cooperation with other agencies. Assessment is Forestwide.	There was no change is the Forest sensitive species list in 2012. The current Forest list includes 31 species (16 birds, 9 mammals, 3 fish, 2 ampbibians, 1 invertebrate). Species inventories were conducted in conjunction with proposed projects and at the Forestwide scale. TEP surveys are ongoing (Uncomphagre fritillary butterfly, USFWS & partners; Mexican spotted owl and SW willow flycatcher, FS, by project). Sensitive species surveys are conducted by project, at the Forestwide scale, or in conjunction with contracted surveys. RMBO and BBS surveys document presence of avian species on the Forest.	No changes in the Forest Plan recommended. *For Uncomphagre fritillary butterfly*: High concern that colony may be extirpated. Conduct analysis and possible section 7 consultation for the Halfmoon Pass/Machin lake site on the Sauguach Ranger District when that particular allotment is up for renewal. *For Mexican spotted owl*: Provide report to USFWS that recommends removing the species from the PLC Unit. *For goshawk*: Recommend

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			Results for FY 2011 include: *Lynx*–In 2012, CPW completed the test program to detect lynx use based on a passive monitoring design comparing remote cameras in 2011. No additional work was completed and data associated with radio collars is no longer being collected. FS personnel continue to document the species through opportunistic encounters. Lynx appear to continue to use primary habitat as expected. *Uncompahgre Frittilary Butterfly*–Surveys in 2012 (2013 report) included ongoing monitoring of the 11 confirmed populations, including the 5 sites on the RGNF. Population persistence was detected at 9 of the 11 sites. Presence was not detected at 2 of the 5 sites on the RGNF (Pole Crk Mtn & Machin Lake), further raising concerns that this latter population might be extirpated. The populations at 3 sites on the Grand Mesa, Uncompahgre, and Gunnison National Forests were again quantitatively sampled using Distance sampling techniques. A statistically valid population trend was determined for UFB at those sites. Additional genetic work was accomplished in 2012 that provided information on homogenity within and b/t colonies, effective population size, etc. The conservation issues (trespass cattle) reported for the Machin Lake site on the RGNF in 2007 were not observed in 2012 by the Uncompahgre frittilary butterfly crew. Section 7 consultation for this site is still recommended when that particular allotment is updated. *Mexican Spotted Owl*–MSO surveys were not conducted on the RGNF in 2012. All available information suggests the	additional focus for surveys of known and potential nest sites, map territories to delineate core nesting areas and PFAs. *For sensitive and other species*: The 2010 recommend to update the Forest Plan BE to include new sensitive species from the 2007, 2009 , and 2011 was completed in 2013. Ensure adequate NFIM funding and time to complete monitring workload. Assess species list to see if some species can be removed. Ensure that new prairie dog colonies are mapped in GIS/ NRIS Wildlife. Participate as needed with flea dusting to protect colonies. Ensure all ptarmigan locations are mapped in NRIS Wildlife.

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			species could be removed from the unit species list for section 7 consultation purposes. *Additional surveys for certain Region 2 sensitive species were reported by all 3 ranger districts in 2012; species and results include*: *Boreal owl– No FS* Surveys reported , BOOW documented on Forest in Wolf Crk Pass area in conjunction with VWC project. 14 new boxes installed on Saguache Ranger District. *Goshawk*–Divide and CP RDs report surveys conducted for general inventory. 7 of 21 known nesting territories monitored on the Forest, all on these districts; 1 new alternate nest located was the only documented active site ; 1 fledling produced from the new site was the only documenetd productivity. *Bighorn Sheep*– Divide and CP RDs both put extensive focus towards survey and/or habitat assessment work for bighorn sheep. Conducted inter-agency counts and/or focused survey work on 2 ranger districts. The Divide RD was awarded Auction & Raffle funds to help fund a seasonal to focus on BHS inventories for future DS allotment work. The Divide RD completed an extensive report of BHS survey efforts partially based on partnership funding. Potential issues with domestic sheep remain in extensive areas of the CP District and at least 2 areas on the Divide RD. The issue being worked on in concert with the range program. Immedaite resolution is needed in some cases due to the nature of the issue. The SAG RD placed salt for BHS in S9 and S10. A need remains to explore restrictions	As noted in the 2010 Conservation Assessmrnt and BE update for the Forest regarding bighorn sheep, the Forest Plan lacks management direction to deal with this issue. Although the issue is being dealt with successfully in some cases, debate continues over what is needed to attain adequate separartion b/t domestic sheep and BHS. Recommend a standard for effective separation be developed for future Forest Plan revision.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			using the pack goats in the Sangre de Cristo Wilderness on the SAG RD. Discussions with the Pike/San Isabel Forest continued without any resolution. *Other*–Additional survey efforts reported by the ranger districts for bald eagle (summer sightings, suspected nesting could not be verified), Brewer's sparrow (PDC added to 1 project), flammulated owl (1 district w/ extensive effort set up PIF monitoring grid– detections); olive-sided flycatcher (detections on 1 district), white-tailed ptarmigan (detections /documented breeding on 2 districts); American marten (detected on 1 district), Gunnison prairie dog (9 colonies monitored, 2 new colonies, apparent expansion in areas, participated in dusting w/ CPW), wolverine (2 bait staion areas, 1 follow-up to citizen sighting negative); Townsend's big-eared bat (new AML gate installed), Ferruginous hawk (no sightings, 1 district PDCs in project); and northern leopard harrier (obs on 1 district no nesting confirmed).	Continue work with the Pike/San Isabel NF to address pack goat use in the Sangre de Cristo Wilderness involving Unit S9.
Monitor changes in composition, structure, and pattern for each LTA [36 CFR 219.27].	Photo interpretation, GIS, satellite imagery, and/or spatial analysis [ecologist/wildlife biologist].	All LTAs over the entire Forest.	No monitoring was required this year. This item is evaluated once every 10 years and was accomplished in 2006.	No changes in the Forest Plan recommended.
Validate the vegetation composition and structure of LTA 1 reference landscapes [36 CFR 219.27].	Photo interpretaion, GIS, satellite imagery, and/or site visit [ecologist: D. Erhard].	14 reference areas within Englemann Spruce on Mountain Slopes LTA. Found throughout the upper elevations of the Forest.	The IRI Center has completed the contract mapping and attributing of Common Vegetative Unit (CVU) polygons on the Forest. The updated vegetation data is being used in relevant spatial analysis work, where feasible, and within the scope of the original modelling concept. The on-going spruce beetle epidemic continues to reduce the live Engelmann spruce component in the	The updated cover type mapping recommended in FY11 for the subalpine zone remains applicable to FY12. No changes in the Forest Plan recommended.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			spruce/fir zone.	
Monitor changes in Colorado Natural Heritage Program Significant Plant Communities listed in EIS [36 CFR219.27].	Photo interpretaion, site visits, GIS, and/or satellite imagery [ecologist: D. Erhard].	Special status plant communities are at various sites over the entire Forest.	No sites were visited in FY12.	No changes in the Forest Plan recommended. Key work not being completed due to vacancy of Ecologist/Botanist position.
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.	No work completed in FY12.	Recommend evaluation of Mehl old growth application to the Forest, new OG crietria most likely needed to adequately inventory this attribute.
Evaluate biodiversity and wildlife [36 CFR 219.12 (k)].	Ocular, plots, transects [ecologist, wildlife biologist].	Forestwide.	Botanical and special plant community work not completed. Relative to the faunal biodiversity, monitoring did not indicate that biodiversity items in 36 CFR 219.12 (k) were in need of change.	No changes in the Forest Plan recommended.
Assess fire/fuels [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. Onsite inspections [AFFMO, ecologist, and 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 and Upper Rio Grande River drainages and in the Conejos River drainage. Treatment methods (Rx fire, mechanical) have been developed and appropriate project plans (i.e., burn plans, thinning/mastication plans) have been implemented. Monitoring of wildland-urban interface and non-wildland-urban interface projects indicated treatment objectives were met. Wildland-urban	Continue focus on wildland-urban interface areas and fire regimes 1 & 3 in condition classes 2 & 3. No changes in the Forest Plan recommended.

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			interface project planning continues in the Conejos River, Baca/Crestone and South Fork areas.	
Assess facilities for compliance with state and Federal requirements and FS Handbook/Manual direction.	(1) Inspect dams, facilities, drinking water, road and trail bridges, and FDRs for safety and maintenance [Forest engineer].	50% of Forest road bridges; high-hazard dams every 3 years; medium-low hazard dams every 5 years; 25% of all trail bridges; 25% all drinking-water systems as required by the Safe Drinking Water Act; 20% of all facilities and 20% of all level 3, 4, and 5 roads as required by programs/per FSH and FSM.	One high-hazard dam located on the Forest: all moderate- and low-hazard dams were inspected in FY 2006. All trail bridges were inspected in FY 2005. We replaced 6 of the trail bridges in 2010.	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 (LEOs), district level II officers, and other personnel as assigned].	Various locations around the Forest as patrolled by Forest LEOs and other Forest Personnel.	Inspections were conducted through hunter patrols and day-to-day contacts by LEOs and other FS personnel. Numerous issues were raised and some citations issued. Forest continues to seek compliance with the current motor vehicle use map.	No changes in the Forest Plan recommended.
	(3) Assess planned road closures through onsite inspections [engineering and timber].	Various locations across the Forest.	Onsite inspections were made by Forest personnel of proposed closures of illegal routes. In the fall of 2006 (FY 2006), the Forest conducted an onsite investigation to evaluate closure activities of illegal routes. A combination of treatments that effectively closed illegal routes were implemented. The treatments included subsoiling, installing carsonite or cedar closure posts and signs, brushing in illegal	No changes in the Forest Plan recommended.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			routes, and physical rock barriers. The efforts continued in FY 2012. The ultimate success of such treatments is determined over time.	
M&E infrastructure [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.	One high-hazard dam located on the Forest: all moderate- and low-hazard dams were inspected in FY 2006. All trail bridges were inspected in FY 2005. We replaced 6 of the trail bridges in 2010.	No changes in the Forest Plan recommended.
M&E 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/safety officer].	Forest.	All contract "Notice To Proceed" meetings include a safety review. Road crew tailgate meetings are held weekly and include project work zone safety requirements discussion. Road crew supervisor ensures compliance. Monthly safety meetings are held to discuss accidents and near misses.	No changes in the Forest Plan recommended.
M&E projects to assure heritage resources have been appropriately protected.	Onsite inspection of selected significant heritage resources (Priority heritage assets). Onsite inspection of National Register-eligible heritage resources identified for protection during ground-disturbing project-related activities [heritage specialist, A. Krall].	Identified significant heritage resources including prehistoric open lithic and camp sites, rock art, prehistoric stone structures and historic buildings. Heritage resources located on selected range allotments, range improvement projects, vegetation treatment projects, AML, and prescribed fire projects.	Heritage Resources monitored in FY12: River Springs WC (5CN756): Despite fixes, there is re-occuring water damage on the living room ceiling. Creede Clay Mine (5ML329): Special Closure Oder and barrier fence North Tracy Canyon Site (5SH193): Mitigated potential adverse effect through project re-design. Pole Creek Cabin (5SH2383) re-evaluated as eligible, requires further documentation and some stabilization. Dog Mtn Site (5RN330): In good condition Black Mtn Folsom (5HN55): Requires	No changes in the Forest Plan recommended.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			second look at travel management in the area. English Valley Folsom Site (5RN1028): Good condition Ivy Creek Site (5ML633): Requires monotoring Bunker Site (5SH614): In good condition	
M&E consultations with American Indians.	Assess proposed management activities and programs to determine if American Indian consultation was accomplished [heritage specialist: A. Krall].	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 Native American Indians.	In FY 2012 Tribal consultation was initiated on a project by project basis and via the RGNF Quarterly Scoping Document (SOPA). Face to face consultation occurred during the repatriation and reburila of 4 sets of culturally unidentifyable remains on RGNF and USFWS lands.	No changes in the Forest Plan recommended.
M&E heritage resource program [36 CFR 219.12 (k)].	Review of all heritage resource reports done in the current monitoring year [heritage specialist: A. Krall].	Review of all heritage resource reports done in FY 2012.	Reports for proposed projects sent to the Colorado State Historic Preservation Officer for concurrence were reviewed.	No changes in the Forest Plan recommended. Proposed projects comply with 36 CFR 219.2 (k).
M&E oil & gas activities so effects do not exceed predicted by 10%.	Compare annual and cumulative oil and gas activity [minerals specialist].	Forest summary.	There was no oil and gas development on the Forest in 2012. The Forest Plan reasonable and foreseeable development scenario and its predicted effects are still valid as described in the Forest Plan.	No changes in the Forest Plan recommended.
Verify if areas are compatible with Forest Plan stipulations. Assess if occupancy could be allowed on the lease tract [36 CFR228.1.2 (e) 1, 2, 3].	Verification form [minerals specialist].	Each lease.	There was no oil and gas development on the Forest in 2012. The Forest Plan reasonable and foreseeable development scenario and its predicted effects are still valid as described in the Forest Plan.	No changes in the Forest Plan recommended. No additional analysis is needed.
M&E minerals program [36 CFR	Onsite inspections of mineral activities; review reports [minerals	Forest summary.	One plan of operations for locatable mineral exploration was approved. The	No changes in the Forest Plan recommended. No additional

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
219.12 (k)].	specialist].		Forest Plan is still valid.	analysis is needed.
M&E noxious weeds [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/BLM [valley-wide weed coordinator].	Only very limited treatment was conducted on the Forest in 2010 due to lack of weed budget. Full agressuve treatment continues on BLM Lands throughout the Public Lands Center.	No noxious weed inventories were conducted on the Forest in 2010. Specific information on species found and areas treated can be found in the FACTS data base. 29 acres of infestations were treated by chemical and hand pulling control methods on the Forest and 300 acres on BLM.	No changes in the Forest Plan recommended.
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.	The Forest & BLM continued to jointly fund a valley-wide weed coordinator to ensure a more coordinated weed program within the valley.	No changes in the Forest Plan recommended.
M&E range program [36 CFR 219.12 (k)].	Refer to monitoring items that follow (see below).	See below.	See below.	See below.
M&E rangeland seral stage to ensure the desired conditions.	(1) Various methods and techniques will be derived from RAMTAG [primary: T. Post].	Cumbres, Fox Creek, Canon, San Juan Wilderness Sheep Allotments; Platoro, Decker, Park, Mesa, Saguache Park, South Sagauche Allotments.	Aproximately 32,000 acres were identified;15 cover frequency transects and 30 utilization cages were installed on the Forest.	No changes in the Forest Plan recommended.
	(2) Monitor desired condition for trend [primary: T. Post, Kelly Garcia].	See above.	See above.	No changes in the Forest Plan recommended.
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 [T. Post, K. Garcia].	A rangeland suitability determination by specific allotments was undertaken for NEPA as per Region 2 RAMTAG.	Rangeland suitability assessments were initiated in 2005 and continued into 2010.	No changes in the Forest Plan recommended.
	(2) Evaluate suitability of rangelands at the AMP level [primary contact: G. Snell; secondary: T. Post, K. Garcia, M.	See above.	See above.	No changes in the Forest Plan recommended.

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	Swinney].			
Monitor utilization of rangelands.	Various mehods will be used including: P/U cages, height-weight, stubble height, and ocular estimates [K. Garcia, T. Post].	Each ranger district will conduct analysis based on Forest Priority Rescission Act Allotments.	Monitoring for vegetation utilization was conducted on all 3 ranger districts for all allotments utilized during the grazing season. 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 in the Forest Plan recommended.
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 ranger district recreational personnel].	Forestwide.	A Forestwide customer survey was completed in FY 2005 and again in FY 2010. The next survey will tentatively be FY 2015. Information from the FY 2005 customer survey on the RGNF is on the website at http://www.fs.fed.us/recreation/recuse/recuse.shtml.	No changes in the Forest Plan recommended.
	(2) Annual developed-site hazard tree inspections. Inspection of Forest's campgrounds and picnic areas for removal of hazard trees [I&D specialist and ranger district recreation/timber personnel].	Campgrounds and picnic areas.	Annual hazard tree inspections of campgrounds and picnic areas were completed as part of the sites' preseason maintenance inspections. In FY 2012 hazard tree identification and removal was a continual process throughout the season. There is a significant increase in tree mortality due to the bark beetle. In addition, water sampling for safe drinking water is completed on a monthly basis.	No changes in the Forest Plan recommended.
	(3) Monitor ski area summer and winter activities. Monitor Wolf Creek Ski Area for compliance with approved summer/winter operating plans [S. Brigham].	Wolf Creek Ski Area.	No new information for FY12.	Continue to work with the ski area in conjunction with planned projects. No changes in the Forest Plan recommended.
	(4) Monitor special use permits. Inspections documented and/or inspection reports MAR 62.5	Forest recreation residences, outfitter guides, recreation	Annual billings and issuance of special use permits is done in the SUDS	A screening checklist is also required when determining whether to permit recreation

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	[Forest and district recreation personnel].	events, and concession permits.	database. The Forest continued to administer a majority of its special use permits.	events for compliance with FSM2721.49, FSH 1909.15, 30.3-2 and the terrestrial BA/BE. No other Forest Plan changes are recommended.
Assess developed sites actual use compared with projected outputs [36 CFR 219.12 (k)].	Use figures collected by concession campground managers and FS campground hosts in our fee campgrounds.	All concession and FS campgrounds and picnic sites.	Campground use and occupancy rates were recorded in our Forest concession campgrounds by the concession managers. Use reports are on file at the Forest's Supervisor Office. The Saguache District does not have concession campgrounds. The Forest continued to implement the recreation facilities analysis and reviewed occupancy rates for developed fee sites.	No changes in the Forest Plan recommended.
Evaluate developed recreation [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 standards, desired conditions, S&Gs, and monitoring were assessed in conjunction with proposed project assessments.	No changes in the Forest Plan recommended.
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.	Almost all Forest trails have been inventoried and entered into INFRA.	No changes in the Forest Plan recommended.
	(2) Monitor representative watersheds to assess baseline capacity allocation. Monitor the amount of public and outfitter/guide use occurring in identified watersheds [Forest and district recreation personnel/RSST].	Forestwide compartments.	Commercial capacity is monitored in all compartments and there are several compartments indicating over-allocation; these will be evaluated during permit re-issuance evaluation.	We will look at our calculations to determine if our baseline figures are correct and if so, what management actions might be needed. No changes in the Forest Plan recommended.
Monitor effects of off-road vehicle use of Forest trails and roads	Assess impacts to physical, biological, and social resources (indicators) [Forest recreation	Hunter patrols during hunting season.	Hunter patrols were implemented again during the hunting season.	No changes in the Forest Plan recommended.

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[36 CFR 295.5].	specialist/RSST].		The Forest emphasized monitoring of afternoon ATV big-game retrieval.	The Forest continues updating the motor vehicle use maps. Future travel management planning efforts are planned.
Evaluate dispersed recreation [36 CFR 219.12 (k)].	Comparative evaluation for M&E report [Forest and district recreation personnel].	Forestwide dispersed Rx areas.	Forest dispersed-recreation objectives, Forestwide standards, management area S&Gs and guidelines, desired conditions and monitoring were assessed in conjunction with proposed project assessments.	No changes in the Forest Plan recommended.
Assess the physical, biological, and social resources within backcountry areas.	Assess the impacts on the physical, biological, and social resources (indicators) [Forest recreation specialist and RSST].	Forestwide backcountry areas.	The Forest worked with the regional office to support the State of Colorado Roadless Rule Environmental Impact Statement. This work included correcting previous mapping errors of inventoried roadless areas.	No changes in the Forest Plan recommended at this time.
Evaluate backcountry areas [36 CFR 219.12 (k)].	Comparative evaluation for the M&E report [Forest and district recreation personnel].	Forestwide backcountry areas.	Forest backcountry area objectives, Forestwide standards, management area S&Gs, desired conditions and monitoring were assessed by ranger district staff.	No changes in the Forest Plan recommended.
Assess the physical, biological, and social resources within wild and scenic river corridors.	Assess impacts on the physical, biological, and social resources (Indicators) [Forest/district recreation personnel and core team].		The enactment of P.L. 106-530, the Great Sand Dunes National Park and Preserve Act, created the need for the Forest Plan to be amended to address the changes to the Forest boundary and the transfer of the Medano Creek Scenic River to the National Park Service.	The Baca Mountain Tract Amendment to the Forest Plan was completed in November 2009 (FY 2010). The Forest boundary and management adjustments were completed when the decision was signed. No other changes in the Forest Plan recommended.
Evaluate Wild and Scenic River MA prescription objectives, desired conditions, and S&Gs	Comparative evaluation for the M&E report [Forest and district recreation personnel].	Forestwide Wild and Scenic River MA.	The wild and scenic river standards, desired conditions, allocation and monitoring were reviewed.	No changes in the Forest Plan recommended.

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[36 CFR 219.12 (k)].				
M&E visitor-use levels and other wilderness resources [36 CFR 293.2].	Schedule for implementation those priority 1 items outlined in each wilderness area wilderness implementation schedule. Surveys, data gathering, and reports [District wilderness coordinators, wilderness rangers, and resource specialists).	South San Juan, Weminuche, Sangre de Cristo, and La Garita wilderness areas.	With the enactment of P.L. 106-530, the Great Sand Dunes National Park and Preserve Act, a need was created to address changes to the wilderness section of the Forest Plan in addition to adjusting the Forest Plan alternative G map. The districts continually monitor the wilderness areas. Air quality, campsite and registration monitoring occurred in FY 2012.	The Baca Mountain Tract Amendment to the Forest Plan was completed in November 2009 (FY 2010). The Forest boundary and management adjustments were completed when the decision was signed. The wilderness team is assessing those compartments where some standards have been exceeded and developing recommended management actions. No changes are needed to the monitoring indicators outlined in the 9/1998 wilderness EA decision (which amended the Forest Plan).
Evaluate wilderness Forestwide goals, objectives, S&Gs, and wilderness MA objectives, desired conditions, and S&Gs [36 CFR 219.12 (k)].	Comparative evaluation for the M&E report [Forest recreation specialist and district wilderness coordinators].	Forestwide wilderness MAs.	The wilderness team has prioritized and monitored wilderness compartments to evaluate whether standards are being met or exceeded.	Continue to monitor wilderness compartments. No changes in the Forest Plan recommended.
Determine progress of accomplishing needed research [Items listed on the top of page V-16 of the Forest Plan].	Questionnaire [Forest staff].	Poll Forest resource specialists on progress.	No new information for FY12. NRIS databases continue to be updated.	No changes in the Forest Plan recommended.
Evaluate RNAs [36 CFR 219.12 (k)].	Ocular, plots, transects, GIS [ecologist: D. Erhard].	Designated RNAs.	New pre-treatment inventory work was completed in the Hot Creek RNA,	No changes in the Forest Plan recommended.

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			including extensive CSE and wildlife data collection. No additional RNAs were visited or evaluated in FY12.	
Determine if project scenic integrity objectives (SIOs) were met. Assess changes in SIO with respect to ROS.	Onsite or photo-point monitoring [landscape architect: K. Ortiz].	Projects where scenic resources is a key issue, and special areas such as campgrounds, gravel pits, and utility sites.	No new information for FY12.	Additional assessment of visual effects from the bark beetle epidemic need to occur during project analysis. In addition, more simulations can provide timber coeficients to determine the appropriate level of trees to be left during harvest to still meet the minimum requirements of the scenic integrity objectives. No other changes in the Forest Plan recommended.
Determine if SIOs were met. Assess constituent survey information.	Constituent surveys, visitor observations, interviews, and public participation [landscape architect: K. Ortiz].	Ranger district roads, trails, and recreation sites.	No new information for FY12.	No changes in the Forest Plan recommended.
Evaluate scenic resources [36 CFR 219.12 (k)].	Summarize report.	Forest.	No new information for FY12.	No changes in the Forest Plan recommended. However, terminology in the Forest Plan with respect to the scenic S&Gs should be updated during the next plan revision.
Assure that land productivity is maintained or improved.	(1) Monitor soil quality standards [Soil Scientist: Dustin Walters (TEAMS EU)]	Burro Blowout.	Overall, potential harvested units checked within the analysis area are meeting the 15% limit for allowable detrimental soil conditions.	No changes in the Forest Plan recommended. Standards and assessments are adequately working.
	(2) Use erosion model to predict erosion or analyze projects after completion.	No new projects requiring WEPP analysis.		No changes in the Forest Plan recommended.

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	(3) Ocular estimates, pace transects, on-site, professional judgements to monitor fertility, erosion, mass movement [soil scientist: Dustin Walters (TEAMS EU)].	Provided on range projects.	Field review found the current grazing management on Saguache Park, Shallow and Crooked Creek and Stoney Pass allotments is maintaining and generally improving the soil productivity over the majority of the area and thereby meets the RGNF plan objectives. Areas of concern were discribed and documentated and will be addressed as per design criteria.	No changes in the Forest Plan recommended.
	(4) Mass-movement evaluation by monitoring existing and potential problem areas [soil scientist: Michael McNamara (TEAMS EU)].	No new projects needing mass-movement evaluation.		No changes in the Forest Plan recommended.
M&E soil productivity [36 CFR 219.12 (k)].	Onsite review and use of pre-existing photo points [soil scientist].	No new or continuing projects assessed.		No changes in the Forest Plan recommended.
Assess protective measures and interpretive efforts.	Ocular surveys [ecologist: D. Erhard; heritage resource specialist: A. Krall].	SIAs.	No information was collected on SAIs in FY12.	No changes in the Forest Plan recommended. Key work not being completed due to vacancy of Ecologist/Botanist position.
Evaluate special interest areas [36 CFR 219.12 (k)].	Summarize reports or information from districts [ecologist: D. Erhard; heritage resource specialist: A. Krall].	SIAs.	No information was collected on SAIs in FY12.	No changes in the Forest Plan recommended. Key work not being completed due to vacancy of Ecologist/Botanist position.
Restocking of harvest areas [36 CFR 219.12].	Stocking surveys [Forest silviculturist/program manager].	All locations/sites planned for 1st-, 3rd-, and/or 5th-year surveys.	Areas continue to be serveyed for or certified as fully stocked.	No changes in the Forest Plan recommended.
Assess timber suitability [36 CFR	(1) Standard suitability determination at the Forestwide level [Forest silviculturist/program	Forest Supervisor's Office, Monte Vista, Colorado.	No new information for FY12.	No changes in the Forest Plan recommended.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
219.12; 219.27].	manager].			
	(2) Standard suitability determination at landscape or project level [Forest silviculturist/ program manager].	Forest Supervisor's Office, Monte Vista, Colorado; and District Offices: Conejos Peak – La Jara, Colorado; Divide – Del Norte, Colorado; Saquache – Saguache, Colorado.	Suitability for current projects under analysis were previously assessed for suitability in 2007.	No changes in the Forest Plan recommended.
Assess insect and disease infestations relative to endemic levels prior to and following management activities [36 CFR 219.12].	Onsite inspections, observations and limited sampling. Can include statistically accurate plots [Forest silviculturist/program manager].	All active timber sales, post-sales and ongoing landscape analyses Areas undergoing extensive natural disturbance.	Insect and disease infestations were surveyed in FY 12. See the narrative description for details. Surveys were conducted to validate aerial photo flight data and to assess current infestation locations and extent. Surveys corroborated aerial flight data and other observations passed on by Forest personnel. Surveys indicate a large growing population of spruce bark beetle, western balsm bark beetle, western spruce budworm; a moderate growing population of mountain pine beetle, Douglas-fir bark beetle, and a moderate infection of sudden aspen decline. Other endemic populations of various insects were also noted in the surveys.	Continue insect and disease assessments. No changes in the Forest Plan recommended.
Monitor size of harvest openings [36 CFR 219.27]	GPS traverses and onsite inspections and reconnaissance [Forest silviculturist/ program manager].	All current active timber sales and timber sale preparation projects.	All active timber sales boundaries are monitored by sale administrators and harvest inspectors to ensure boundaries have not been altered during harvest operations. At final acceptance of harvest units boundaries are once again checked, including tests for tracer paint. No irregularity in pre-sale boundary locations were noted in inspection reports in 2012. Planned timber sale harvest units that were layed out in 2012 were checked to ensure harvest unit sizes meet accepted opening standards as documented in NEPA decisions. No irregularities were noted.	No changes in the Forest Plan recommended.
Assess	Review silvicultural prescription,	*All current active timber sales*	*Pre-sale* reviews indicated that the sales	No changes in the Forest Plan

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
implementation of silvicultural objectives during pre-sale, harvesting, and post-sale review periods.	onsite inspections, validate before/after photo points, density measurements [Forest silviculturist/ program manager].	*and timber sale preparation projects.*	were being prepared to achieve the silvicultural objectives for sales evaluated. *Harvesting* reviews indicated that the sales were being implemented in accordance with the silvicultural objectives for the sales evaluated. *Post-sale* reviews indicated that the sales met the silvicultural objectives for the sales evaluated.	recommended.
Assess output performance of timber sale program quantity components [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 [Forest silviculturist/program manager].	Forest Supervisor's Office, Monte Vista, Colorado; and District Offices: Conejos Peak – La Jara, Colorado; Divide – Del Norte, Colorado; Saquache – Saguache, Colorado.	*The forest achieved its fy targets.*	No changes in the Forest Plan recommended.
Assess timber program [36 CFR 219.12 (k)].	Comparative evaluations [Forest silviculturist/program manager].	Forest Supervisor's Office, Monte Vista, Colorado; and District Offices: Conejos Peak – La Jara, Colorado; Divide – Del Norte, Colorado; Saquache – Saguache, Colorado.	The Forest reviewed Forest Plan (Forestwide) desired conditions (goals), objectives, and S&Gs (for Silviculture); reviewed MA, prescriptions, and S&Gs for MAs including suitable timberlands (4.21, 4.3, 5.11, 5.13, and 5.41); and reviewed monitoring approaches to timber-related desired conditions. A Regional Log Accountability Audit was conducted on the Forest in 2008. Results of the audit, and action items needing attention, were sent to the Forest Supervisor. The Forest responded to the action items in a response letter. Most of the action items have been completed, some are ongoing activities needing further attention. A Regional Trust Fund Audit was conducted on the Forest in 2008. Results of the audit, and action items needing attention, were sent to the Forest. The Forest responded to the action items in a response letter in 2009. Most of the action items have been completed; some are	No changes in the Forest Plan recommended.

Monitoring Item	Method and [Contact]	Planned Locations	Monitoring Accomplished (What, where, results, summary, and references?)	Evaluation (What are the recommendations based on monitoring? Are changes needed to the Forest Plan?)
			ongoing activities needing further attention.	