

**FOREST PLAN MONITORING**  
**and**  
**EVALUATION REPORT**  
**Fiscal Year 1998**  
**Kootenai National Forest**

<b>SUMMARY</b>
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## **INTRODUCTION**

The Kootenai Forest Plan was approved on September 14, 1987. It established management direction for a 10-15 year period that began on October 1, 1987 (Fiscal Year (FY) 1988). This direction was the result of a comprehensive analysis of land capabilities, public issues, and environmental effects along with a balancing of legal requirements.

We have completed the monitoring of Forest Plan implementation for FY 98. This report evaluates the field data collected by the end of September 30, 1998 that pertain to the 17 monitoring items reported annually. Our monitoring and evaluation process is shown in Chapter IV of the 1987 Kootenai National Forest Land and Resource Management Plan (Forest Plan).

We have completed eleven years of implementing the Forest Plan. Information from our monitoring will help identify what we need to change during Forest Plan revision. We have found some methods work well, and some do not. We found that some of our projections were accomplished and some have not been. The summary explains the Forest Plan itself, describes the monitoring methods, and summarizes the results of the annual monitoring items.

## **FOREST PLAN DECISIONS**

The Forest Plan is a set of decisions that guide management of the Forest. Taken broadly, it contains three types of decisions:

- **Goals, Objectives, and Desired Conditions** (pages II-1 through II-17 of the Forest Plan) provide general direction regarding where we should be headed as we put the Plan into practice.
- **Standards** (Pages II-20 through II-33, Chapter III of the Forest Plan, and Forest Plan amendments) tell us how to put the Plan into practice, or give us conditions we must meet while we implement the Plan.
- **Land Allocation - Management Areas** (MAs), as described in the Forest Plan Chapter III and displayed on the Forest Plan Map, are those areas of the Forest which are allocated for different types of land management and resource production.

## MONITORING

As we've found over the last eleven years, land management occurs in complex and changing situations, and our results will not always be totally predictable, definitive, or certain. Management results are affected by many things, including natural events that cannot be predicted. The purpose of monitoring is to determine answers to the following questions: Are we doing what the Plan envisioned (implementation monitoring)? Are we seeing the effects and outputs predicted in the Plan (effectiveness monitoring)? Are the standards working (validation monitoring)? Do we need to adjust practices to meet the standards? Does the monitoring process need adjusting?

Monitoring data for most items is reported yearly by the District or responsible Staff areas at the Supervisor's Office. Monitoring forms are used to assist in collecting consistent data from the various sources.

Monitoring and evaluation information will be used as we begin Forest Plan revision. Part of the reason we decided to issue a "Notice of Intent" to revise the Forest Plan, which was issued in November, 1996, was because of our findings in the monitoring program.

## SUMMARY OF MONITORING RESULTS

**Elk Habitat (C-1b):** Monitoring Item C-1 has been a five-year monitoring item. However, the Forestwide Blowdown Salvage decision modified C-1 to add a component (C1-b) for monitoring the effects of the Blowdown Salvage on elk habitat. The entire monitoring item (C1 a and b) will be reported in the 2002 monitoring report.

This monitoring item (C1-b) was established to help ensure that elk summer range habitat capability is maintained during projects implemented under the Forestwide Blowdown Salvage decision. Across the Forest there were five projects occurring in MA 12 that were implemented under the Forestwide Blowdown Salvage Decision during FY 98. Only two closed roads were opened. Project duration on the opened roads was less than 14 days in each case. All five projects complied with MA 12 open road density standards for MA 12. All projects were implemented in compliance with the Decision. Summer range habitat capability was maintained at existing levels.

### **Threatened and Endangered Species (C-7):**

**Grizzly Bear:** The Kootenai National Forest contains portions of two grizzly bear recovery zones: the Cabinet-Yaak Ecosystem (CYE) and the Northern Continental Divide Ecosystem (NCDE). About 72 percent of the CYE is located on the western portion of the Forest and about 4 percent of the NCDE is located in the extreme northeast corner. Grizzly bear habitat effectiveness was maintained compared to FY 97, and is above the desired level of 70 percent Forestwide. One more BMU was brought into compliance for habitat effectiveness, although some BMUs still remain below the 70 percent level. Sightings of female grizzly bears was down in FY 98, but the six year average has increased, as has their distribution. There were no human caused mortalities. Based on this analysis

grizzly bear habitat is improving in condition and the population appears to be on a slow trend towards recovery.

The Environmental Assessment Decision Notice and FONSI for the Forestwide Blowdown Salvage project was approved on March 24, 1998. This decision established a special monitoring item to assure that the cumulative effects of projects implemented under this decision would meet management direction for grizzly bears. The focus of monitoring is on the opening of closed roads and the number of projects active at one time in each BMU. The decision requires that this item be reported for two years after the decision (starting in 1998 report). There were 5 projects implemented under this Blowdown decision in FY 98, but only one occurred in a Bear Management Unit. The project was in BMU 5, but there were no closed roads opened for the project. All management direction for grizzly bears was met.

**Gray Wolf:** There is one recovery area within or adjacent to the Kootenai Forest (the Northwest Montana Recovery Area). The recovery goal for this area is 10 wolf packs. A small portion of this recovery area (about 10 percent) is located in the northeast corner of the Forest, east of US Highway 93.

In 1998, reports of wolf sightings continued at slightly increased levels compared to recent years. Sightings were noted in areas on the Fortine, Libby, Three Rivers, and Cabinet Ranger Districts. Many of these were sightings of individuals from the Murphy Lake pack, or the two new packs (Graves Creek and Little Wolf) that were confirmed on the Kootenai in 1998. The USFWS trapping crew attempted to verify pack activity on the Three Rivers Ranger District, but they did not locate any wolves this year. Most of the components of wolf habitat on the Kootenai did not change significantly in 1998 compared to previous years. Since big game populations, which are the primary prey for wolves, declined during the severe winter of 1996-97, further monitoring will be needed to determine how this ultimately affects wolf populations.

**Bald Eagle:** Bald eagle habitat is generally within one mile of major lakes and rivers. Habitat quality and quantity on the Kootenai is stable, and may be increasing in the long term as potential nest trees mature. Mid-winter bald eagle sighting occur mostly along major watercourses both on the Forest and on adjacent ownerships. The survey results for 1998 indicate the lowest number of wintering bald eagles since monitoring started. The mild winter conditions, contributing to low numbers of vehicular killed deer and elk and very little big game mortality due to lack of ice on lakes and reservoirs, is the likely cause. Nesting surveys show the 1998 nesting eagle population at an all time high, as is the number of young fledged. The nesting population trend is up.

**Peregrine Falcon:** In FY 98 there were no peregrine falcons observed on the Kootenai National Forest. This is fewer than the average number of sightings over the past decade (2 per year). Suitable nesting habitat on the Kootenai is localized and not abundant. Due to the steep, cliffy nature of peregrine nesting habitat, activities which could lead to adverse impacts are rare. Although there were no sightings in 1998, peregrine falcons appear to be maintaining their presence on the Kootenai.

**White sturgeon:** The US Fish and Wildlife Service released a draft Recovery Plan for the Kootenai River white sturgeon in FY 97. The short-term goal of the Recovery Plan is to prevent extinction and to begin restoring natural reproduction in this population. The current population estimate from the

Idaho Department of Fish and Game indicates there are approximately 1,469 adult sturgeon in the population. Fish radio tagged in FY 98 migrated from Kootenay Lake, British Columbia into the Ferry Island Reach, Idaho. These fish are potential spawners. There was also one wild juvenile from the 1997 cohort that was captured indicating that there was successful spawning in 1997. Ages of wild fish captured in FY 98 ranged from 1 to 49 years. The populations of white sturgeon appear to be maintaining.

**Bull Trout:** The US Fish and Wildlife Service listed the Columbia River distinct population segment of bull trout as threatened on July 10, 1998. As a result the Kootenai National Forest was required to consult with the US Fish and Wildlife Service on all ongoing activities under Section 7(a)(1) of the Endangered Species Act. During FY 98 the Forest consulted on all ongoing activities and has received concurrence on all but four ongoing projects. The Kootenai National Forest is also preparing watershed assessments for the four sub-populations supported on Kootenai National Forest lands for submission to the US Fish and Wildlife Service. These assessments will provide baseline information to be included in a bull trout recovery plan.

Bull trout redd count numbers are increasing annually which indicates increases in the population. This information indicates the Forest Plan as amended by INFS is providing adequate protection to the aquatic threatened and endangered species and habitat found on the Forest. Based on this review, specific changes to the Forest Plan are not needed at this time.

**Range Use (D-1):** Livestock use on the Kootenai was anticipated to be about 12,600 Animal Unit Months (AUMs) per year. The FY 98 level of grazing use was 9,856 AUMs or 78 percent of the projected level. Monitoring indicates that riparian protection measures identified in the new grazing permits are being implemented. During the last eleven years, grazing use has averaged 91 percent of projected use which is within the range anticipated in the Plan. Permittee requests for non-use and Forest requests to defer grazing to prevent stream bank deterioration and overgrazing account for use levels being slightly lower than the Plan projected. In review of this monitoring item, no changes are needed to the Forest Plan at this time. During Forest Plan revision, the status of allotments should be reviewed.

**Noxious Weeds (D-2):** The Forest Plan states that noxious weed infestations will be monitored for increases in total acreage, increases in weed density and the introduction of new weed species on the Forest. Monitoring indicates that several noxious weeds have increased more than 10 percent in the numbers of acres affected and some have had a 10 percent or more increase in density of existing infestation since the Forest Plan was signed in 1987. In addition, with the discovery of several new invaders over the last several years, it is apparent that the diversity of noxious weed species has increased. Based on this, this monitoring item is outside the range prescribed in the Forest Plan. Prior to 1997 emphasis in weed control focused on the use of biological and cultural controls (cultural control uses plant competition to maintain or enhance desired plants) and the use of herbicides on the north end of the Forest. In 1996, a Noxious Weed Control Provision was added to the timber sale contracts. In 1997, the Herbicide Weed Control Decision Notice was issued giving the Forest another tool for control. These actions are occurring under the direction of the Forest Plan and should help improve the noxious weed situation on the Forest. Because of this, no changes are needed in the Forest Plan at this time.

**Allowable Sale Quantity (E-1 and Appendix B):** The Forest's projected total maximum timber sell volume for the decade from suitable management areas is 2,270 million board feet (MMBF), which is an

average of 227 MMBF per year. In addition, 60 MMBF was estimated to be sold from unsuitable management areas, averaging six MMBF per year. Sell volumes have declined from approximately 200 MMBF per year to about 62 MMBF per year between FY 88 and FY 98. The average yearly amount sold has been 114 MMBF from suitable lands, and 1.5 MMBF from unsuitable lands. In total, this amounts to 1.3 billion board feet for the past eleven years. This actual sell volume is well below the ASQ limit as set in the Plan.

In the past 5 years, additional factors have influenced the timber sales program. The most significant was additional streamside protection measures as required by the Inland Native Fish (INFS) Decision of July, 1995. Also, the US Fish and Wildlife Service amended biological opinion for grizzly bear recovery was issued July, 1995, and changed how recovery processes would take place on the Forest. In general, in the past five years, it has become more difficult to plan and execute sales due to public controversy and scheduling requirements necessary to meet resource needs.

The Forest has not exceeded the ASQ in 10 years of implementation. However, large changes in the actual program levels versus the projections of the Forest Plan indicate that revision of the Plan will need to address the sustainability of the timber sale program. This will be a part of the initial issues for scoping during the revision of the Forest Plan.

**Acres of Timber Sold for Timber Harvest (E-2):** The Forest Plan projected 15,740 acres of annual regeneration harvests to achieve the ASQ. During FY 98, the general downward trend which had been apparent in most years remained in place. The acreage sold for regeneration harvest is highest for MA 15, while five other suitable timber MAs (11, 12, 14, 16, and 17) continued to be well below Forest Plan projected amounts. Additional harvest occurred in FY 98, but was either salvage or intermediate harvest that did not result in a regenerated stand.

Many of the factors affecting this monitoring item are similar to those affecting item E-1, Allowable Sale Quantity. As stated in the evaluation for that item, wildlife habitat management, watershed concerns, litigation, appeals, deferrals, and changes in management area designation based on ground verification have all affected the potential to meet the Plan's projected regeneration harvest. Since harvest has focused on MA 15 lands during the last ten years, it indicates that there are efficiencies present for that MA that are not present for the other MAs. Assessment work for Forest Plan revision will need to determine both future opportunities for MA 15 and the problems which prevented greater utilization of the other management areas for timber harvest.

It is apparent that the acres sold for harvest will not meet the acreage projected in the Forest Plan. This is a result of many factors which are influencing the Forest's timber sales program (see E-1 for details). The upcoming revision of the Forest Plan will provide the opportunity to assess appropriate levels of harvest volume and acreage.

**Suitable Timber Management Area Changes (E-3):** Management areas (MAs) are validated during site-specific project analysis. When inaccuracies are found, MA boundaries are corrected to keep the Forest Plan MA map and acreage current. The largest changes in FY 98 were net losses of 1,075 acres of MA 12 and 1,432 acres of MA 14. Total net loss in the suitable timber land in FY 98 was 3,229 acres. Most of these MA changes were made in the process of designating MA 13 and other old growth MAs.

The degree to which changes have been made to management area designations indicate continuing validation of Forest Plan MAs. The large change in the suitable management area category (nearly 60,000 acres over the last eleven years) amounts to approximately 3 percent of the total suitable base. At this time, it is not apparent that this is significant in terms of the calculation of the long term sustainability of the timber harvest program or ASQ. During revision of the Forest Plan, sustainability and ASQ calculations will be made using the validated management areas. This will allow for an assessment of the effect of changed management area designations.

**Timber Harvest Deferrals (E-7):** To determine the effect of harvest deferrals on the timber sale program, monitoring is done in two different categories. Category A deferrals are those that result from our project-specific conclusions. Category B deferrals are those that result from an externally imposed situation. In FY 98, 1,075 acres in Category A were deferred, and 154 were deferred in Category B. Deferrals took place due to a variety of reasons, including potential impact to watershed, fisheries, and roadless resources, economically infeasible harvest units, or difficulty in finding an appropriate logging system to fit the situation.

For the entire period from FY 88-98, 34,983 acres were deferred for both A and B categories. The largest amount for a single MA is 22,118 acres which were deferred in MA 12. This is the largest amount of all the MAs and is beyond the prescribed evaluation range of 10,000 acres. MA 14 and 15 also had large amounts of harvest deferred, although they did not exceed the 10,000 acre evaluation range.

This item indicates that many more factors affect harvest than was accounted for during the preparation of the Forest Plan. Since the Forest now has detailed records of such factors, it will be more able to assess those effects during Forest Plan revision. These factors will continue to be monitored, and brought forward in the revision process.

**Clearcut Acres Sold (E-9):** This monitoring item was established to help ensure that the amount of clearcut harvesting on the Forest is steadily reduced. Clearcut harvest acres sold steadily declined from FY 90 to FY 98 with the exception of FY 96. In FY 96, the amount of clear cutting increased, primarily due to emphasis on salvaging fire-killed timber created by the 1994 fires and dead lodgepole pine killed by the mountain pine beetle epidemic. In FY 98, the amount of clearcutting declined again. Approximately 200 acres sold in FY 98 were clearcut as opposed to 5,700 acres in FY 1988. When it was possible to do so, the Forest reduced the amount of clear cutting. As a result, the Chief's goal for reducing clearcutting has been fully met.

**Riparian Areas (C-9):**

**Miles of stream classes and/or stream categories identified and mapped:** Almost 4,800 lineal miles of riparian habitat have been categorized and mapped since 1988. Over 2,700 of these miles are perennial streams (Stream Classes 1 and 2, INFS Categories 1 and 2). The rest are intermittent and ephemeral streams (Stream Classes III, INFS Category 4).

**Determining whether INFS standards and guidelines were applied during projects:** Twenty-three projects were evaluated in FY 98 to determine how INFS Riparian Habitat Conservation Areas (RHCAs) and Riparian Management Objectives (RMOs) were applied. All of the 23 projects either

meet or exceed the default RHCA width. The default INFS RHCA width was used along 325 miles of streams.

**RCHA activity tracking:** In 1998, a little over 77 miles of RHCA had some level of activity. Most of the work was for road re-construction, improvement of road crossings and road drainage improvement.

**Watershed and stream restoration activities:** In 1998, watershed restoration activities were accomplished on over 60 miles of stream. Thirty-eight stream crossings were removed, and a total of 175 other small sites had improvements such as ditch relief culverts, stream channel veins (near bridges), or large woody debris (LWD) addition to reaches where woody debris is lacking. Since 1990, watershed restoration on the Forest has totaled over 6,500 acres.

**Riparian Area BMP results:** Implementation and effectiveness of applicable riparian Best Management Practices (BMPs) that were used during management activities in or near the riparian zone were evaluated in FY 98. Forty-three practices were evaluated and acceptable implementation was accomplished 100 percent of the time. Approximately 117 effectiveness evaluations were completed for this same period, of which 99 percent of the BMPs were deemed to be effective. For the 2,336 practices evaluated over the eight-year period, acceptable implementation was accomplished 91 percent of the time.

Over the eleven-years since FY 88, approximately 1,684 effectiveness evaluations were completed for this same period, of which 93 percent were deemed to be effective. The abnormal year was 1995 when only 83 percent of the implementation evaluations and 82 percent of the effectiveness evaluations were scored as acceptable. Results of Kootenai Forest BMP tracking and State audits are included in these eleven-year results.

We are effectively applying the Riparian Area Guidelines, INFS direction, and riparian BMPs on projects; therefore, we are on-track with the Forest Plan. Because of the new direction from INFS, no change to Forest Plan direction is needed at this time.

**Fish Habitat and Populations (C-10):** The Forest Plan indicated that stream surveys, streambed coring, water temperature, woody debris counts, redd counts, and/or embeddedness sampling could be used as data sources to assess the effects of implementation on fish and habitat. After FY 92 we added channel geometry, particle size distribution and riffle stability index (RSI) as data sources. We determined that data would be collected using these methods on a number of watersheds across the Forest including areas that had not been harvested or roaded. This monitoring item is to be reported every two years, however, it will be reported annually because of the relationship to Monitoring Item F-2, Sedimentation.

At this point in time we cannot determine whether implementation of existing Forest Plan prescribed practices results in stream conditions that are outside the variability limits set in the Plan. It is difficult to distinguish among a variety of possible causes for change in streams. Our ability to detect changes in streams and habitat and identify the cause using the C-10 monitoring data is low, and the risk of a faulty conclusion continues to be high. Also, many of the monitoring variables are much more variable than assumed, and thus the accuracy and reliability of C-10 data may be moderate at best. The 1998

monitoring results reinforce the conclusions that were previously disclosed in the 1996 and 97 reports, and indicate the need to change the monitoring requirements.

We have established a team to develop a new monitoring program for fish and fish habitat. We are still exploring options to evaluate these elements. We have revised the C-9 monitoring requirement to better track implementation of Best Management Practices and INFS standards and guides as recommended by the C-10 interdisciplinary team. We have also issued a Kootenai National Forest policy statement on how to site-specifically designate INFS riparian buffer strips to ensure Forest-wide consistency in this critical habitat protection strategy. We have also completed a Best Management Practices training program for all field personnel to improve our performance in watershed and habitat protection.

Habitat restoration efforts continue to focus on mitigation of sediment and woody debris impacts. These efforts are focusing on known sediment sources and areas lacking woody debris. We will continue restoration efforts where project analyses indicate a need.

**Soil and Water Conservation Practices (F-1):** About 69 separate projects were audited in FY 98 by KNF personnel. FY 98 implementation evaluations were completed for 180 BMPs and implementation evaluations met the requirement of acceptable 97 percent of the time. Effectiveness evaluations in FY 98 met the requirement of acceptable just over 96 percent of the time.

The one FY 98 State BMP Audit done on the Forest evaluated a total of 47 BMPs, a dramatic reduction from the 158 practices evaluated on four separate projects in 1996. Implementation evaluations met the requirements of acceptable or better 89 percent of the time while 10 percent were rated unacceptable or worse. Effectiveness evaluations met the requirements of acceptable or better 91 percent of the time and 8 percent were unacceptable or worse (see Table F-1-3). These two ratings are similar to, but slightly lower than the Statewide average of 94 percent acceptable or better for implementation and 96 percent acceptable or better for effectiveness.

The state BMP audit process separately evaluates sensitive or high risk BMPs and how particular results compare to the state wide average. In this sensitive-BMP category, implementation results for the KNF-audited sale were 57 percent acceptable compared to the Statewide average of 84 percent. Effectiveness results were also 57 percent acceptable compared to the Statewide average of 89 percent. These results are skewed by the fact that only one site was reviewed, but also indicate that this one sale had problems.

In review of this item, we are generally meeting State standards and protecting beneficial uses. Additional emphasis is needed on "high risk BMPs", particularly bringing existing roads up to BMP standards. With the continuing emphasis on BMPs, and further implementation of the new process, this item is on track with the Forest Plan.

**Sedimentation (F-2):** The Forest Plan identified seven streams that would be monitored for this item. They are Big, Sunday, Bristow, Red Top, Rock, Granite, and Flower Creeks. The data to be collected include bedload and suspended sediment concentrations and streamflow. Nearly all of the Forest's monitoring effort for this item has been dedicated to suspended sediment monitoring for timber harvest and road construction activities. This data is to be used to look for evidence of a change in streambed and water quality conditions, and thus probable effects on beneficial uses related to present management direction. After FY 92 we added channel geometry, particle size distribution, and riffle stability index

(RSI) as data sources. We determined that data would be collected using these methods on a number of watersheds across the Forest including areas that had not been harvested or roaded.

At this point in time we cannot determine whether implementation of Forest Plan prescribed practices has resulted in stream conditions that are outside the variability limits set in the Forest Plan. It is difficult to distinguish between natural variation and management-induced changes in streams. As noted in C-10, an interdisciplinary team was formed in 1997 to recommend a course of action to change the C-10 and F-2 monitoring programs. Once we have evaluated what additional items we may need to monitor, what questions we are trying to answer, and how we can best collect the data to answer those questions, then we will develop a proposal to amend the Forest Plan.

We will continue to implement INFS. We will continue emphasis on BMP implementation to maintain a strong emphasis on our sediment prevention measures. In addition, we will continue habitat restoration efforts which are focused on restoration of known sediment sources.

**Water Yield Increases (F-3):** In FY 98, the water yield model was used to estimate the peak flow increase on 539,652 acres of both National Forest and private land. The major portion of these watersheds had been analyzed in previous years and include many acres of private land. Of the total area analyzed during this fiscal year, 40 percent of the acres exceeded Forest water yield guidelines. Channel damage has not necessarily occurred in watersheds shown to be exceeding water yield guidelines since this monitoring item is based on computer modeling and not field observations and measurements.

Approximately 1,979,800 acres have been analyzed for water yield conditions on the Kootenai since 1988. Of this total, 1,505,500 acres (76 percent) were found to be at or below the guidelines and 474,301 acres (24 percent) were found to be over guidelines according to the most recent analysis in each area, which could be up to ten years ago.

This monitoring item continues to be off-track with the Forest Plan. It is important to note, however, that when projects are proposed in watersheds that are over the standard, they are designed to improve the long-term watershed condition, rescheduled, or dropped (See Monitoring Items E-1 and E-7). This monitoring item shows that water yield calculations and stream channel analysis is an important part of the analysis needed before projects can be implemented.

**Emerging Issues (H-2):** This item identifies those issues that appear to be developing since the Forest Plan was initiated, and also monitors the original Forest Plan issues that are still of concern. Emerging issues include: road obliteration, road closures, providing access to private land, noxious weeds, the amount and type of timber being offered, the lack of ability to modify riparian habitat conservation areas, opening sizes and disturbance patterns, downsizing of budgets and workforce, firewood availability, prescribed burning, and use of fire and timber harvest in old growth. Forest Plan issues that are still current concerns include: grizzly bear management, timber supply (local economic impact), road management and public access, potential mineral development, visual (scenic) quality, and community stability (in the broader sense of using the natural resources of National Forest lands to provide jobs related to recreation, tourism, and forest products other than timber). These emerging issues will be reviewed during Forest Plan revision to determine if and how they should be resolved.

**Forest Plan Costs (H-3):** Timber sale costs are about four times greater than projected, which is well outside the +/-10 percent range prescribed in the Forest Plan. This increase is due to the increasing complexity in timber sale preparation along with a concurrent decrease in the amount of timber volume being sold. Since unit costs have increased significantly in timber sale preparation, timber roads, and reforestation, there will be a need to factor in such changes during Forest Plan revision. The Forest's accounting systems are continuing to effectively track these trends. During the revision process, cost efficiency analysis will include these elements and others as appropriate.

**Forest Plan Budget Levels (H-4 and Appendix A):** As in prior years, there is a great deal of variation in the level of funding for various program areas in comparison to the projected amounts. Notable areas where funding has increased beyond expected are fire suppression, fuels management, range, law enforcement, tree improvement, salvage sales and trails. Most other program areas are remaining at budget levels below those projected. However, given major trends now seen since 1988, it is apparent that many programs and costs have changed substantially, and the Forest Plan predictions are no longer fully valid. This analysis will be helpful in budget analysis for Forest Plan revision.

**Project Specific Amendments (Appendix C):** Project specific amendments are changes in a standard that only apply to that project. They do not change the standard for the long term. The Forest Plan states, "If it is determined during project design that the best way to meet the goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve an exception to that standard for the project." Approximately 46 project decisions were issued in FY 98. Eight project specific amendments were approved for five different projects in FY 98 for the following reasons: to allow higher open road densities during activities in MA 12 (big game summer range); to allow harvest within movement corridors (MA 12); to suspend the requirement of retaining all cavity habitat in MA 10 (big game winter range); and to allow timber harvest in old growth.

**Programmatic Forest Plan Amendments (Appendix D):** One Programmatic Forest Plan Amendment was approved in FY 98. It modified the open road density requirements in MA 12, in the Beaver Creek watershed.

