

FOREST PLAN ANNUAL MONITORING REPORT
for Fiscal Year 1996
Kootenai National Forest

SUMMARY

INTRODUCTION

We have completed the monitoring of Forest Plan implementation for fiscal year (FY) 1996. Our monitoring and evaluation process is shown in Chapter IV of the 1987 Kootenai National Forest Land and Resource Management Plan (Forest Plan). This year's report evaluates 25 monitoring items, including 14 annual and five biannual items. In addition, six five-year items are being evaluated this year. These are the five-year items which were found to be inconclusive or off-track in the 1992 Monitoring Report. They are being reported this year in order to summarize the applicable information in preparation for Forest Plan revision. We will use this information in the development of the "Analysis of the Management Situation" which evaluates existing conditions, monitoring results and determines the "Need for Change" in the Forest Plan.

The summary explains the Forest Plan itself, the monitoring methods, and summarizes nine years of monitoring practices, standards, and outputs under the Forest Plan.

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 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 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 nine years, monitoring occurs in complex and changing environments, and our results will not always be totally predictable, definitive or certain. Monitoring is 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 on forms by the Districts or responsible Staff areas at the Supervisors Office. These forms are reviewed yearly and if updates to the monitoring processes are needed, then changes to the forms are made. You'll notice that some of the action items discuss updating the monitoring forms.

Monitoring and evaluation information will be used more intensively now as we begin Forest Plan revision. Part of the reason we decided to issue a "Notice of Intent" to revise the Forest Plan was because of our findings in the monitoring program. It is obvious that we are off-track in areas regarding the Allowable Sale Quantity (ASQ) and that the ASQ needs to be revised to more accurately reflect what we may be able to do. As noted in this year's report it is timely to further evaluate many other items as we learn to understand the concepts of ecosystem management.

CHANGES TO THIS YEARS REPORT

This year you'll notice a couple changes to the reports format. In the past we have ended each evaluation with a section called "Findings". This year those findings have been incorporated into the "Evaluation" section and we've added a section call "Recommended Actions". We added this section to display what, if any, action we needed to take in response to a monitoring item. These actions are also discussed in the summary of each monitoring item. In addition, we changed the order of the report so that all of the water and fisheries related monitoring items are found together. This should aide in the understanding of inter-relationships of these items (C9, C10, F1, F2 and F3).

SUMMARY OF MONITORING RESULTS

Roadless Area Overuse (A-2): A qualitative evaluation was completed for this monitoring item. That evaluation found that most of the Wilderness, Ten Lakes Study Area, proposed wilderness and other roadless areas are not being overused. Some overuse is occurring on approximately 20 acres within the Wilderness and Ten Lakes Study Area. This overuse has primarily been associated with the use of stock during wet periods. With the exception of these 20 acres, this item is on-track with the Forest Plan. We will evaluate what action(s) may be needed to address this issue at the spring Forest recreation workshop. In addition, we will update the monitoring forms so that we can better track the data.

Off Road Vehicle (ORV) Use Effects (A-5): A qualitative evaluation was completed for this monitoring item. That evaluation found that we are seeing some minor and isolated effects from ORV use. Mitigation such as kelly humps and log barricades have been effective in reducing this use where it is not appropriate. Because of the minor and isolated nature of ORV use, this item is on-track with the Forest Plan. The monitoring form will also be updated so that we can better track the data.

Old Growth Dependent Species (C-4):

Old Growth Habitat (C-5): The Forest Plan specifies that 10% of the Forest land below 5,500 feet elevation would be protected as old growth habitat for dependent wildlife species. Approximately

1,125,000 acres below 5,500 feet have been evaluated for old growth. A total of 129,104 acres (11.5 percent) are now protected with appropriate management area designations. The level of old growth designated for the areas validated to date is above the 10 percent level required in the Plan. Good progress is being made in the validation effort and will continue.

Cavity Habitat (C-6): The Forest Plan specifies that we will maintain habitat capable of supporting populations of cavity-nesting wildlife at 40 percent or greater of their population potential. The 40 percent population level is considered the minimum level necessary to maintain viable populations. Monitoring results provide evidence that the Forest is meeting the intent of the Forest Plan by providing cavity habitat at a level sufficient to maintain viable populations of dependent wildlife (>40 percent of population potential), although this habitat may not be evenly distributed. This monitoring item is on-track with the Forest Plan. As part of Forest Plan revision, this item will be further evaluated to determine if there should be more localized objectives for cavity habitat.

Threatened and Endangered Species (C-7): We're monitoring the quantity and quality of habitat for the recovery of peregrine falcons, gray wolves, bald eagles, grizzly bears and white sturgeon. We're also cooperating with other agencies to obtain population estimates or trends.

- *Peregrine falcon:* Two peregrine falcons were observed on the Cabinet Ranger District in 1996. A bird was seen in the lower Clark Fork valley near Heron and a second sighting occurred along the Bull River. Nesting activity was not confirmed at either location.
- *Gray wolf:* In 1996, reports of wolf sightings continued at slightly increased levels compared to recent years. Sightings were noted in areas on the Fortine Ranger District and portions of Libby and Cabinet Ranger Districts. In addition, sightings increased on the Three Rivers Ranger District in 1996.
- *Bald eagle:* Surveys indicate stable numbers of wintering bald eagles during the reporting period.
- *Grizzly bear:* Grizzly bear habitat effectiveness is above the Plan's standard on a Forestwide average. Two bear management units went below 70% habitat effectiveness because of fire salvage projects. These units will meet 70% habitat effectiveness once harvest and rehabilitation activities are complete.
- *White sturgeon:* The status of the Kootenai River white sturgeon improved in 1996. A new population estimate (based on better data) from the Idaho Department of Fish and Game indicates there are approximately 1,469 adult sturgeon in the population. This is a 589-fish increase in the estimated size of the population due (in part) to new data from Kootenay Lake in Canada.

All of the threatened and endangered species' habitats being monitored appear to be maintaining or improving. The information shows that the Kootenai National Forest is progressing toward providing adequate habitat for threatened and endangered species recovery.

Range Use (D-1): During the last nine years, grazing use has averaged 90 percent of projected use which is within the range anticipated in the Plan.

Noxious Weeds (D-2): Extensive efforts at documenting information regarding noxious weeds occurred in FY 96 with the preparation of the Herbicide Weed Control Environmental Assessment. The information indicates that several noxious weeds (see Table D-2-2) have increased more than 10% in the numbers of acres affected and some have had a 10% or more increase in density of existing infestation.

In addition, with the discovery of several new invaders over the last several years, the diversity in noxious weeds has changed. This monitoring item is outside the range prescribed in the Forest Plan.

Prior to 1996 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 EA should be 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. In addition we will update the monitoring forms to collect data on the effectiveness of these new control methods.

Allowable Sale Quantity (ASQ) (E-1 and Appendix B): The sell volume chargeable to the ASQ for FY 96 represents approximately 53% of the estimated annual ASQ volume. The average annual sell volume chargeable to the ASQ from total suitable lands is at 46% of the predicted ASQ and continues to be outside the 95% level projected in the Plan. In addition, the Chief issued a decision on a Forest Plan appeal in November 1995 which amended or revised the Forest Plan to correct the ASQ calculation and set a program sell level not to exceed 150 MMBF until an amendment or revision of the ASQ is done. Partially based on this item, Forest Plan revision has been initiated so that it can be fully addressed. In the meantime, it will continue to be monitored.

Acres of Timber Sold for Timber Harvest (E-2): FY 96 did not follow the general downward trend, but instead showed an increase from the previous three years. The nine-year average for MA 15 is just over the Plan's projected level, while four other suitable timber MAs are significantly below in percent accomplished (MAs 12, 14, 16, 17). MA 12 has the largest average acreage deviation (a total of 5,429 acres or 8,800 minus 3,371). 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): The degree to which changes have been made to management area designations indicate that validation of Forest Plan data is continuing to occur. The large change in the suitable management area category (-40,413 acres) amounts to approximately three percent of the total suitable base. At this time, it is not apparent that this is significant in terms of the calculation of ASQ. During revision of the Forest Plan, 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): In FY 96 a total of 3,586 acres were deferred. For FY 88-96, MA 12 had 20,911 acres deferred. This is the largest amount of all the MAs and is beyond the prescribed range of 10,000 acres. The grand total cumulative deferred MA acreage for both categories is now 32,395 acres. 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.

Harvest Area Size (E-8 and Appendix C): The average seedtree harvest exceeded 40 acres in MA's 15 and 16 in 1996. In addition, the average shelterwood harvest exceeded 40 acres in MA 16 in 1996.

However, the nine year average harvest area size by regeneration harvest method is still less than 20 acres in MA 11 and less than 40 acres in MA's 12, 14-17. In addition, Appendix C lists the harvest areas resulting in larger than 40 acre openings approved during FY 1995 and 1996, as well as an estimate of how long it will take for the vegetation to regrow to provide adequate big game hiding cover. There were 39 resultant openings greater than 40 acres approved by the Forest Supervisor. All were in response to the catastrophic results of the 1994 fires, windstorm or dead lodgepole pine. In most cases, the newly created openings were contiguous with an existing harvest unit. Many of these openings did not provide hiding cover because of the extent of tree mortality. Appropriate documentation and analysis was prepared for the projects approved to exceed 40 acres, and therefore this item is consistent with the Forest Plan.

Clearcut Acres Sold (E-9): The acres of clearcut harvest sold had been reduced prior to 1996. In FY 1996 the amount of clearcutting increased. This is primarily due to emphasis on salvage of timber killed by the 1994 fires and salvage of dead lodgepole pine. In many instances the salvage of fire killed timber or dead lodgepole pine resembled a clearcut. Where there were options the Forest reduced the amount of clearcutting in the last nine years and met the intent of the Chief's goal for 1997.

Riparian Areas (C-9): Three approaches are used to track this item:

- P Miles of stream classes and/or stream categories identified and mapped:** Approximately 4,100 lineal miles of riparian habitat have been categorized and mapped since 1988, about half in the past four years.
- P Determining whether INFS standards and guidelines were applied during projects:** In 1995, the Decision Notice for the Inland Native Fish Strategy (INFS) EA amended the Forest Plan by providing an interim strategy to protect native fisheries until a decision is issued for the Upper Columbia River Basin Environmental Impact Statement. Based on this amendment, review was initiated to determine if projects followed this direction. 69 projects were proposed and implemented in compliance with INFS. Ninety percent of these projects used the INFS default criteria for riparian widths and, on 10 percent of the projects, the RHCA width was modified based on site-specific information.
- P Evaluation of the implementation and effectiveness of applicable riparian BMPs that were used during management activities in or near the riparian zone:** For the 2,039 practices evaluated over the seven-year period, acceptable implementations were accomplished an average of 90 percent of the time. Approximately 1,340 effectiveness evaluations were completed for this same period, of which 91 percent were deemed to be acceptable.

We are effectively applying the Riparian Guidelines, INFS direction, and riparian BMPs on projects; therefore, we are on track with the Forest Plan. We will update the monitoring forms to improve tracking of INFS direction. In addition, we will fully evaluate riparian area needs during Forest Plan revision.

Fish Habitat and Populations (C-10):

Soil and Water Conservation Practices (F-1): Approximately 90 separate projects were audited in FY 96 by KNF personnel. In FY 96, implementation evaluations were completed for 4,113 BMPs. Implementation evaluations met the requirement of acceptable 98 percent of the time in FY 96,

significantly up from 1995. Effectiveness evaluations were completed for 1,749 BMPs in FY 96 and met the requirement of acceptable 100 percent of the time.

The FY 96 State BMP Audit done on the Forest evaluated a total of 158 BMPs on four separate projects, the same number of projects and practices as in 1994. Implementation evaluations met the requirements of acceptable or better 92 percent of the time and eight percent were unacceptable or worse. Effectiveness evaluations met the requirements of acceptable or better 92 percent of the time and eight percent were unacceptable or worse.

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 standards. With the continuing emphasis on BMPs, this item is on track with the Forest Plan.

Sedimentation (F-2):

Water Yield Increases (F-3): The forest water yield model is used to analyze the potential effect of disturbance in a watershed as a part of opportunity analysis for timber sales and other activities. If the analysis shows that water yields approach or exceed guidelines, then no projects are proposed or further studies are made which enable our hydrologists to make professional interpretations. Due to past activities (prior to issuance of the Plan), activities on privately owned land, and effects of wildfire, 24% of the portion of the Forest analyzed has water yields exceeding the Forest Plan standard. In these areas, projects have not been undertaken or have been modified so that water quality, beneficial uses, and stream channel integrity are maintained.

Soil Productivity (F-4): The survey has been completed on 77 timber harvest units throughout the Forest between 1992 and 1996. These areas include the current logging methods including the types of equipment being used for mechanical falling, yarding, and slash piling. The areas ranged in size from 2 to 117 acres. The 1992 report showed that 52 percent of the 511 acres surveyed to that point were above the Regional Standards of 15 percent detrimental compaction. Since then, 1,221 acres have been surveyed and only two percent (21 acres) were above the Regional Standard. This very significant change is mainly a result of reduction of acres that are "dozer piled." Other reasons include more winter logging, more broadcast burning, and more use of forwarder logging equipment. Based on the information stated above (the improvement that has occurred since 1992 and that no unit was greater than 15 percent in the last two monitoring seasons), this monitoring item is determined to be within the recommended range stated in the Regional policy (no areas should measure more than 15 percent of detrimental disturbance).

Effects to Local Economy (H-1):

Emerging Issues (H-2): This item identifies those issues that appear to be developing since the Plan was initiated, and also monitors the original Forest Plan issues that are still of concern. Emerging issues include: the increased awareness of fuel buildups as it pertains to the wildland/urban interface; interim grizzly bear management requirements; management of ponderosa pine old growth, balancing public access and Forest Plan standards, and monitoring needs related to the effects of wildfires, particularly tree mortality, vegetative succession, and fuel accumulations. Forest Plan issues that still exist are:

grizzly bear management, timber supply (local economic impact), road management, public access, potential mineral development, visual (scenic) quality, and community stability.

Forest Plan Costs (H-3): Timber sale costs are about four times greater than the Forest Plan projected. This is continuing the upward trend that began in FY 1990. The increase is due to the increasing complexity in timber sale preparation along with the concurrent decrease in the amount of volume being sold.

Forest Plan Budget Levels (H-4 and Appendix D): 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, law enforcement, tree improvement, and salvage sales. Most other program areas are remaining at budget levels below those projected.

Project Specific Amendments (Appendix E): 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 109 project decisions were issued in FY 1996. Seven project specific amendments were approved in FY 1996 for the following reasons: to allow higher open road densities during activities in MAs 12 (big game summer range) and MA 15 (timber); to allow harvest within movement corridors; to allow grazing in Management Area 24 (low productivity lands) and to not meet partial retention for visuals.

Programmatic Forest Plan Amendments (Appendix F): The Forest Plan provides a process for amending the plan. Programmatic amendments are effective until the plan is revised, or changed. One Programmatic Forest Plan Amendment was approved in FY 1996. It changes in open road density standards for MA 12 in Barron Creek.