

KOOTENAI NATIONAL FOREST

FOREST PLAN

CHAPTER IV - IMPLEMENTATION

IV. Implementation

A. Introduction

Implementation of the Kootenai National Forest Plan requires moving from an existing management program, with a budget and "targets" for accomplishment, to a new management program with a budget, goals, and objectives that provide a different way of addressing the issues and concerns people have voiced about Forest management. This Forest Plan establishes the direction for the Kootenai National Forest for the next 10 to 15 years, when used in conjunction with Forest Service Manuals and Handbooks and the Northern Region Guide.

The remainder of this chapter explains how management of the Kootenai National Forest moves from the Current Direction and Existing Situation to the Forest Plan, all described in the EIS. The following sections describe aspects of Implementation that are influenced by previous management activities and objectives; the relationship between project planning and this Forest Plan; the goals of, and requirements for monitoring and evaluation; and the circumstances which could require the plan to be amended or revised.

B. Influence of Past Management on Future Options

Chapter III defines management direction for specific areas of the Forest. In some instances, this direction represents a change from current management direction. Where no previous management activities have occurred, the prescriptions of this Forest Plan can be put into effect from a neutral point. However, in areas where management activities have occurred to meet objectives other than those now specified, a transition period may be required to bring management fully into line with this Plan.

In addition to specifying management direction for areas of the Forest, this Plan schedules management activities. In some situations, previous management activities influence the scheduling of future activities.

C. Project Planning

The Forest Plan serves as the single land management plan for the Kootenai National Forest. All other land management plans are replaced by the direction in this Forest Plan.

Similarly, this Forest Plan directs the management of all resources on the Kootenai National Forest. All previous resource management plans are replaced by this document. Resource management objectives are displayed in Chapter II, and schedules of resource management practices for each management area are displayed in Chapter III.

Several documents designed to give further guidance to management activities have been or will be developed "under the umbrella" of this Forest Plan. They are:

- Annual Forest Travel Plan
- Landownership Adjustment Plan (Appendix 9)
- Area Transportation Development Plans
- Cabinet Mountains Wilderness Action Plan
- Fire Management Action Plans

The management direction provided by this Forest Plan comprises the sideboards within which project planning and activities take place. It defines management area goals and management standards that guide project activities toward achieving a desired future condition for the management areas and, collectively, for the Forest. It specifies a schedule for project activities (management practices). It provides guidance concerning potential land type and habitat type constraints, including assumptions about the appropriate vegetation management practices for timber sale projects. On-the-ground project analysis validates or invalidates the appropriateness of those assumptions.

Within this guidance, the projects are developed to most efficiently and effectively accomplish the management goals and objectives. All NEPA requirements will be complied with in all projects.

Project environmental analyses provide an essential source of information for Forest Plan monitoring. First, as project analyses are completed, new or emerging public issues or management concerns may be identified. Second, the management direction designed to facilitate achievement of the management area goals are validated by the project analyses. Third, the site specific data collected for project environmental analyses serve as a check on the correctness of the land designation. All of the information included in the project environmental analysis is used in the monitoring process to determine when changes should be made in the Forest Plan.

As part of project planning, site-specific water quality effects will be evaluated and control measures designed to ensure that the project will meet Forest water quality goals; projects that will not meet State water quality standards will be redesigned, rescheduled, or dropped.

If it is determined during project design that the best way to meet the management area goals of the Forest Plan conflicts with the Forest Plan standards, the Forest Supervisor may approve a variance to that standard for the project; such variances and the rationale for the changes must be described in the project's documentation and effected by means of a project specific amendment to the Forest Plan. There will be no deviation from standards established for threatened and endangered species conservation and protection unless a biological evaluation concludes that such a deviation would have no effect on the recovery of the species and there has been consultation with the Fish and Wildlife Service.

D. Monitoring and Evaluation

Monitoring and evaluation comprises the management control system for the Forest Plan. It will provide the decisionmaker and the public with information on the progress and results of implementing the Forest Plan.

Monitoring and evaluation entails comparing the end-results being achieved to those projected in the Plan. Outputs, and environmental effects, both experienced and projected, will be considered. In other words, are we doing what we said we were going to do and is what's happening what we expected to happen?

To do this, a comparison will be made, on a sample basis, of overall progress in implementing the Plan as well as whether the overall relationships on which the Plan is based have changed over time. When changes occur, they will be evaluated as to their significance, and appropriate amendments or revisions made if needed.

The goals for monitoring and evaluating this Forest Plan are to determine:

- How well the Forest is meeting its planned goals and objectives;
- If existing and emerging public issues and management concerns are being adequately addressed;
- How closely the Forest Plan's management standards are being followed;
- If outputs and services are being provided as projected;
- If the effects of implementing the Forest Plan are occurring as predicted, including significant changes in the productivity of the land;
- If the dollar and manpower costs of implementing the Forest Plan are as predicted;
- If implementing the Forest Plan is affecting the land, resources, and communities adjacent to or near the Forest;
- If activities on nearby lands managed by other Federal or other governmental agencies, or under the jurisdiction of local governments, is affecting management of the Forest;
- If research is needed to support the management of the Forest, beyond that identified in Chapter II of the Forest Plan; and
- If there is a need to amend or revise the Forest Plan.

The monitoring requirements for this Forest Plan are outlined in Table IV-1, Forest Plan Monitoring Requirements. These requirements address the items to be monitored, the data sources, expected precision and reliability, frequency of measurements, reporting period, and the acceptable variability. Most of the monitoring items are applicable to specific Management Areas; a listing of applicable monitoring items is included in the direction for each Management Area (Chapter III). Other monitoring items are more applicable to broad areas or are Forest-wide in nature and will be evaluated from such sources as the data base, Forest Attainment Reports, public involvement processes, and non-Forest-Service sources.

Evaluation of data gathered during monitoring will be guided by the Decision Flow Diagram detailed in Figure IV-2. As indicated in the diagram, the results of this evaluation lead to decisions on further action of the following types:

- continuing the management practice;
- referring the problem to the appropriate line officer for improvement of the application of the management practice;
- modifying the management prescription as a Plan amendment;
- modifying the land designation as a Plan amendment;
- revising the schedule of outputs;
- revising the cost/unit output; or
- initiating revision of the Plan.

The document resulting from the use of the Decision Flow Diagram constitutes the evaluation report. As applicable, the following will be included in each evaluation report;

- A quantitative estimate of performance comparing outputs and services with those projected by the Forest Plan.;
- Documentation of measured effects, including any change in productivity of the land;
- Unit costs associated with carrying out the planned activities as compared with unit costs estimated during Forest Plan development;
- Recommendations for changes;
- A list of needs for continuing evaluation of management systems and for alternative methods of management;
- A list of additional research needed to support the management of the Forest; and

- Identification of additional monitoring needs to facilitate achievement of the monitoring goals.

E. Amendment and Revision

The Forest Supervisor may amend the Forest Plan. Based on an analysis of the objectives, standards, and other contents of the Forest Plan, the Forest Supervisor shall determine whether a proposed amendment would result in a significant change in the Plan. If the change resulting from the proposed amendment is determined to be significant, the Forest Supervisor shall follow the same procedure as that required for development and approval of a Forest Plan. If the change resulting from the amendment is determined not to be significant for the purposes of the planning process, the Forest Supervisor may implement the amendment following appropriate public notification and satisfactory completion of NEPA procedures.

A Forest Plan shall ordinarily be revised on a 10-year cycle or at least every 15 years. It also may be revised whenever the Forest Supervisor determines that conditions or demands in the area covered by the Plan have changed significantly or when changes in RPA policies, goals, or objectives would have a significant effect on Forest level programs. In the monitoring and evaluation process the interdisciplinary team may recommend a revision of the Forest Plan at any time. Revisions are not effective until considered and approved in accordance with the requirements for the development and approval of the Forest Plan. The Forest Supervisor shall review the conditions on the land covered by the plan at least every 5 years to determine whether conditions or demands of the public have changed significantly.

MONITOR- ING ITEM MIH (1)	SUBJECT AND REG (2)	MONITORING OBJECTIVE	ACTIONS, EFFECTS, OR RESOURCES TO BE MEASURED	DATA SOURCE	EXPECTED PRECISION (3)	EXPECTED RELIABILITY (4)	FREQUENCY MEASUREMENT (5)	REPORTING PERIOD (6)	VARIABILITY WHICH WILL INITIATE FURTHER ACTION
A - 1	RECREATION 36 CFR 219 .12(K)(1)	Measure trends in roadless area use	Dispersed use in wilderness & non- wilderness areas	1 RIM data 2 Interviews	Moderate	Low	Sample four times a year; once in each season	5 years	+ 20% from the pre- dicted trends of RVD's by type of use (motor- ized or roadless)
A - 2	RECREATION 36 CFR 219 .12(K)(2)	Determine wheth- er areas are being overused	Site conditions in roadless and semi- primitive motorized recreation areas and trails	LAC/Code-a- site (or sim- ilar form), and photos	Moderate	Moderate	Biannual	5 years	Site deterioration sufficient to damage soil & water resource, permanently affect the sites' ability to re- cover, become a safety hazard, or detract from the recreation experience
A - 3	RECREATION 36 CFR 219 .12(K)(1)	Measure the ef- fectiveness of visual resource management pro- gram	VQO acres where treatment meet obj- ectives	Project EA's	Moderate	Moderate	Annual	5 years	Over 10% of acres do not meet VQO category
A - 4	RECREATION 36 CFR 219 .12(K)(1)	Measure trends in Developed Site use	Developed recrea- tion	1 Occupancy data kept by Hosts 2 Fee collec- tion data 3 Spot checks of sites	High	High	Annual	5 years	+ 20% from predicted RVD's
A - 5	RECREATION 36 CFR 219 .12(K)(2)	Affects of ORV use.	1. Environmental effects of ORV use to: a. soil & water b. wildlife 2. Amount of ORV use 3. Conflict, if any, with other users.	1. Observation 2. Interviews 3. Surveys	Moderate	Low	Annual	5 years	Same as A-2

(1) Management Information Handbook code letter.

(4) The degree that monitoring can be expected to reflect the total Forest situation.

(2) General subject area and NPMA regulation.

(5) Sampling frequency and sample size where appropriate.

(3) The exactness or accuracy with which the data will be collected. (6) Period for which data is collected prior to analysis and reporting.

Table IV-1

MONITORING AND EVALUATION PLAN (continued)

IV-7

MONITORING ITEM MIH (1)	SUBJECT AND REG (2)	MONITORING OBJECTIVE	ACTIONS, EFFECTS, OR RESOURCES TO BE MEASURED	DATA SOURCE	EXPECTED PRECISION (3)	EXPECTED RELIABILITY (4)	FREQUENCY MEASUREMENT (5)	REPORTING PERIOD (6)	VARIABILITY WHICH WILL INITIATE FURTHER ACTION
A - 6	RECREATION 36 CFR 219 .12(K)(1)	Acres and distribution of the roadless resource.	1. Location of activities. (usually timber sales).	1. Project EA 2. District staff.	high	high	annual	5 years	1. \pm 5% of acres 2. \pm 5% distribution by district.
A - 7	ARCHEOLOGY 26 CFR 219 .12(K)(1) AND 36 CFR 800	Monitor compliance with 36 CFR 800	Management impacts on cultural resources	1 Surveys/inventories 2 Nomination 3 Enhancement 4 Evaluation 5 Site stabilization 6 Performance standards	High	High	Annual	5 years	More than 10% variability from standards
C - 1	WILDLIFE 36 CFR 219 .12(K)(1)	Maintain habitat capable of supporting 68% of max potential elk population: 5500 End Dec 1 6550 End Dec 2 8000 End Dec 3	Elk habitat capability as % of potential.	1 Stand Exams 2 Annual travel plan. 3 Elk habitat guidelines 4 Project EA's 5 Habitat transects for sample projects	Moderate	Moderate	Annual	5 Years	Any Downward Trend
C - 2	WILDLIFE 36 CFR 219 .12(K)(1)	Maintain the trend of achieving 8,000 elk after 30 years	Numbers of elk as a big game indicator species	1 Habitat transects 2 MDPW&P census and harvest results	Moderate	Low	Annual	5 Years	Any Downward Trend
C - 3	WILDLIFE	Provide habitat capable of maintaining or enhancing other big-game populations	Habitat capability for big game other than elk (bighorn sheep, mtn goat, moose, whitetail deer, mule deer, black bear, and mtn lion)	1 Project EA's 2 MDPW&P reports, surveys, & harvest surveys 3 Personal observations	Moderate	Low	Annual	5 Years	Downward population trend, or noticeable decrease in habitat capability

(1) Management Information Handbook code letter.

(4) The degree that monitoring can be expected to reflect the total Forest situation.

(2) General subject area and NFMA regulation.

(5) Sampling frequency and sample size where appropriate.

(3) The exactness or accuracy with which the data will be collected. (6) Period for which data is collected prior to analysis and reporting.

MONITOR- ING ITEM MIH (1)	SUBJECT AND REG (2)	MONITORING OBJECTIVE	ACTIONS, EFFECTS, OR RESOURCES TO BE MEASURED	DATA SOURCE	EXPECTED PRECISION (3)	EXPECTED RELIABILITY (4)	FREQUENCY OF MEASUREMENT (5)	REPORTING PERIOD (6)	VARIABILITY WHICH WILL INITIATE FURTHER ACTION
C - 4	WILDLIFE 36 CFR 219 .12(K)(1)	Maintain viable population of old growth dependent species (> 40% of potential)	Population levels of old growth dependent species	1 Population transects 2 Personal observations	Moderate	Low	Annual	5 Years	Any reduction approaching minimum viable population levels (40% of potential population)
C - 5	WILDLIFE 36 CFR 219 .12(K)(2)	Maintain habitat capable of supporting viable populations of old growth dependent species (10% old growth in each drainage)	Old growth habitat amount and condition	1 Timber stand data base 2 Old growth data base 3 Spot surveys 4 Project EA's	High	Moderate	Annual	2 Years	Reduction below 10% in a drainage which was previously over minimum; or any reduction in a drainage previously under minimum
C - 6	WILDLIFE 36 CFR 219 .12(K)(2)	Maintain habitat capable of supporting viable populations of cavity nestors (> 40% of potential)	Cavity habitat condition and amount	1 Stand exams 2 Spot surveys 3 EA's for a sample of projects	Moderate	Moderate	Annual	5 Years	Any reduction in habitat capability approaching 40% of potential
C - 7	WILDLIFE 36 CFR 219 .12(K)(2)	Provide habitat capable of supporting recovered populations of T&E species, and cooperate in recovery operations	Kootenai N.F. contribution to T&E species recovery (grizzly bear, bald eagle, and gray wolf)	1 Habitat maps 2 Cumulative effects analysis 3 Habitat improvement accomplishment reports 4 Recovery plans 5 Population and habitat research	High	Moderate	Annual	Annual	Any downward population trend. Any forest wide decrease in habitat quantity or quality. Failure to meet Kootenai N.F. recovery plan goals

(1) Management Information Handbook code letter.

(4) The degree that monitoring can be expected to reflect the total Forest situation.

(2) General subject area and NPMA regulation.

(5) Sampling frequency and sample size where appropriate.

(3) The exactness or accuracy with which the data will be collected.

(6) Period for which data is collected prior to analysis and reporting.

TABLE IV-1

MONITORING AND EVALUATION PLAN (continued)

IV-9

MONITORING ITEM MIH (1)	SUBJECT AND REG (2)	MONITORING OBJECTIVE	ACTIONS, EFFECTS, OR RESOURCES TO BE MEASURED	DATA SOURCE	EXPECTED PRECISION (3)	EXPECTED RELIABILITY (4)	FREQUENCY OF MEASUREMENT (5)	REPORTING PERIOD (6)	VARIABILITY WHICH WILL INITIATE FURTHER ACTION
C - 8	WILDLIFE 36 CPR 219 .12(K)(1)	Maintain indicator species above minimum viable population levels for the Forest as a whole (see Appendix 12)	Habitat for indicator species & population trends	1 Spot surveys 2 Stand exams 3 Timber stand data base	Moderate	Moderate	Annual	5 Years	Any reduction approaching minimum habitat needed for viable population levels (40% of potential populations)
C - 9	RIPARIAN 36 CPR 219 .12(K)(1)	Insure that the intent of riparian management goals are met	Riparian habitat condition	1 Mapping from project EA's 2 Information gathered from M&E Items C-10, P-1, & P-2	High	High	Annual	5 Years	Variability limits listed in M&E Items C-10, P-1, & P-2
C - 10	FISHERIES 36 CPR 219 .12(K)(1)	To assure changes in fish habitat and numbers do not exceed those predicted	Fish habitat and spawning habitat (on the following representative streams in conjunction with M&E Items F-1 & F-2: Bristow Crk MA-15 Sunday Crk MA 12,13 Red Top Crk MA 12,13 Rock Crk MA 2 Granite Crk MA 2,8 Flower Crk MA 8 Big Crk MA 3	1 Stream surveys 2 Core samples 3 Stream temperature samples 4 Debris recruitment analysis 5 Redd counts 6 Embeddedness samples	High	Moderate	Annual	2 Years	+10% change in Redd #s +2 degrees stream temp from normal +10% change in sediment +10% change in embeddedness +20% change in debris accumulation
D - 1	RANGE	To see if Plan objectives are being met	AUM's permitted	1 Range allotment permits 2 PRAMIS reports 3 Allotment plans 4 Spot checks	High	High	Annual	Annual	+20% of anticipated AUM's

(1) Management Information Handbook code letter.

(4) The degree that monitoring can be expected to reflect the total Forest situation.

(2) General subject area and NPMA regulation.

(5) Sampling frequency and sample size where appropriate.

(3) The exactness or accuracy with which the data will be collected. (6) Period for which data is collected prior to analysis and reporting.

TABLE IV-1

MONITORING AND EVALUATION PLAN (continued)

IV-10

MONITORING ITEM MIH (1)	SUBJECT AND REG (2)	MONITORING OBJECTIVE	ACTIONS, EFFECTS, OR RESOURCES TO BE MEASURED	DATA SOURCE	EXPECTED PRECISION (3)	EXPECTED RELIABILITY (4)	FREQUENCY OF MEASUREMENT (5)	REPORTING PERIOD (6)	VARIABILITY WHICH WILL INITIATE FURTHER ACTION
D - 2	RANGE 36 CPR 219 .12(K)(2)	To identify changes in noxious weed infestations	Acres infested with noxious weeds	1 Spot surveys 2 Public input 3 County survey data	Moderate	High	Annual	Annual	10% increase in number of acres infested; 10% increase in density of existing infestations A change in the diversity of noxious weed species
E - 1	TIMBER 36 CPR 219 .12(K)(1)	To see if Plan objectives are being met	Regulated and unregulated sell volume	1 Cut and sold report 2 Chief's report	High	High	Quarterly	Annual	+5% deviation after 5 years (Regulated Vol) +10% deviation after 5 years (Unregulated Vol)
E - 2	TIMBER 36 CPR 219 .12(K)(1)	To see if Plan objectives are being met	Acres harvested by Management Area	Timber stand data base	High	High	Annual	Annual	+10% by MA after 5 years
E - 3	TIMBER 36 CPR 219 .12(K)(5ii)	To track ground verification of MA boundaries	Documented adjustments to MA boundaries	EA's for timber sales	High	High	Annual	Annual	+5,000 acre cumulative total change in any MA with programmed timber harvest after 5 years
E - 4	TIMBER 36 CPR 219 .12(K)(1)	To validate Plan yield tables	Growth trends by productivity class (MIXCON I, MIXCON II and LPP)	1 Timber stand data base 2 Permanent growth plots 3 Stand exams for thinning	High	Moderate	Annual	5 Years	+10% of predicted volume by productivity class
E - 5	TIMBER 36 CPR 219 .12(K)(5i)	To track Plan targets and to insure NFMA requirements are met	Acres of reforestation and survival rates	Timber stand data base	High	High	Annual	5 Years	+10% deviation from predicted regeneration acres >10% of stands are not certified regenerated within 5 yrs of regeneration harvest
E - 6	TIMBER 36 CPR 219 .12(K)(2)	To see if Plan targets are being met	Acres of timber stand improvement	Timber stand data base	High	High	Annual	5 Years	+20% of predicted acres accomplished

(1) Management Information Handbook code letter.

(4) The degree that monitoring can be expected to reflect the total Forest situation.

(2) General subject area and NFMA regulation.

(5) Sampling frequency and sample size where appropriate.

(3) The exactness or accuracy with which the data will be collected. (6) Period for which data is collected prior to analysis and reporting.

TABLE IV-1

MONITORING AND EVALUATION PLAN (continued)

IV-11

MONITOR- ING ITEM MIH (1)	SUBJECT AND REG (2)	MONITORING OBJECTIVE	ACTIONS, EFFECTS, OR RESOURCES TO BE MEASURED	DATA SOURCE	EXPECTED PRECISION (3)	EXPECTED RELIABILITY (4)	FREQUENCY OF MEASUREMENT (5)	REPORTING PERIOD (6)	VARIABILITY WHICH WILL INITIATE FURTHER ACTION
E - 7	TIMBER 36 CFR 219 .12(K)(2) .12(K)(3)	To track acres with programmed harvest where entry has been deferred because of economics or other resource conflicts such as Water Quality Grizzly Bear, Mining, etc.	Programmed harvest acres deferred from entry because of economics or other resource conflicts by MA	Project EA's	Moderate	Moderate	Annual	Annual	>10,000 acres cumulative change by MA after 5 years
E - 8	TIMBER 36 CFR 219 .12(K)(5)(iii)	Evaluation of Maximum size limits for harvest areas.	1. Cutting unit size by forest type, MA, & District.	Project EA's	high	high	Annual	2 years	Variation in trends of other resources beyond the natural variation that can be determined
F - 1	SOIL & WATER 36 CFR 219 .12(K)(1) .12(K)(2) .7(f)	To determine if Regional and project Soil & Water Conservation Practices are adequate to meet State Standards	1 Turbidity 2 Stream temperature 3 Total suspended solids 4 Streamflow	One sale/District/year, or 5% to 10% of Forest sales	High	High	Quarterly	Annual	Failure to meet State standards
F - 2	SOIL & WATER 36 CFR 219 .12(K)(1) .7(f)	Sediment impacts on fishery habitat	1 Bedload movement 2 Suspended solids 3 Streamflow	Monitoring of the 7 sample streams listed in M&E Item C-10	Moderate	Moderate	Annual	Annual	20% increase in bedload and suspended solids
F - 3	SOIL & WATER 36 CFR 219 .12(K)(2) .7(f)	To determine the cumulative level of water yield increases and the resultant affect on stream channels	Water yield	1 Recording guages 2 Crest guages 3 Channel surveys 4 Kooetnal Water Yield Analysis Procedure	High	Moderate	Annual	Annual	20% increase in channel stability rating 20% of watersheds exceed hydrologic guidelines

(1) Management Information Handbook code letter.

(4) The degree that monitoring can be expected to reflect the total Forest situation.

(2) General subject area and NFMA regulation.

(5) Sampling frequency and sample size where appropriate.

(3) The exactness or accuracy with which the data will be collected.

(6) Period for which data is collected prior to analysis and reporting.

TABLE IV-1

MONITORING AND EVALUATION PLAN (continued)

IV-12

MONITOR- ING ITEM MIH (1)	SUBJECT AND REG (2)	MONITORING OBJECTIVE	ACTIONS, EFFECTS, OR RESOURCES TO BE MEASURED	DATA SOURCE	EXPECTED PRECISION (3)	EXPECTED RELIABILITY (4)	FREQUENCY OF MEASUREMENT (5)	REPRTING PERIOD (6)	VARIABILITY WHICH WILL INITIATE FURTHER ACTION
P - 4	SOIL & WATER 36 CFR 219 .12(K)(2)	To determine changes in site quality (espec- ially on soils with a loess surface)	Soil compaction; surface displace- ment; and site quality	Transects in sample harv- est units on one sale/Dist- rict/year	Moderate	Moderate	Annual	5 Years	>15% decrease in site productivity
G - 1	MINERALS 36 CFR 219 .12(K)(2) .7(f)	To monitor the effects of min- eral activity on other re- source suita- bilities	Acres of MA changed because of mineral activity	1 EA's 2 Mineral Op- erating Plan 3 Lease app- lications	High	High	Annual	5 Years	>10,000 acres cumula- tive change in any MA after 5 years
H - 1	HUMAN AND COMMUNITY DEVELOPMENT, EMPLOYMENT, AND BUDGET 36 CFR 219 .7(P) .12(K)(1)	To determine the effects of Plan implemen- tation on the local economy	Change in local economy	1 Chamber of Commerce surveys 2 Industry reports 3 Employment statistics 4 25% fund distribution 5 Census data	Moderate	Low	Annual	5 Years	Further action will depend on the signifi- cance of Forest activi- ties and will most likely be reflected in changes after the first planning period (10 to 15 years)
H - 2	HUMAN AND COMMUNITY DEVELOPMENT, EMPLOYMENT, AND BUDGET 36 CFR 219 .7(f)	To determine if there are local or Forest wide issues that were not considered in the Forest Plan, and if data is suffic- ient to assess the new issues	Emerging issues	1 Inform and involve ef- forts 2 EA respon- ses	Moderate	Moderate	Annual	Annual	Issues surfaced that were not included in, or analyzed for af- fect by the Plan

(1) Management Information Handbook code letter.

(4) The degree that monitoring can be expected to reflect the total Forest situation.

(2) General subject area and NPMA regulation.

(5) Sampling frequency and sample size where appropriate.

(3) The exactness or accuracy with which the data will be collected.

(6) Period for which data is collected prior to analysis and reporting.

TABLE IV-1

MONITORING AND EVALUATION PLAN (continued)

IV-13

MONITOR- ING ITEM MIH (1)	SUBJECT AND REG (2)	MONITORING OBJECTIVE	ACTIONS, EFFECTS, OR RESOURCES TO BE MEASURED	DATA SOURCE	EXPECTED PRECISION (3)	EXPECTED RELIABILITY (4)	FREQUENCY OF MEASUREMENT (5)	REPORTING PERIOD (6)	VARIABILITY WHICH WILL INITIATE FURTHER ACTION
H - 3	HUMAN AND COMMUNITY DEVELOPMENT, EMPLOYMENT, AND BUDGET 36 CFR 219 .12(K)(3)	To determine if the costs of producing out- puts that were used in the Plan continue to be valid	Cost of producing outputs	1 MAR's 2 MAT reports	High	Moderate	Annual	Annual	+10% deviation from the cost data used to cal- culate PNW in this Plan
H - 4	HUMAN AND COMMUNITY DEVELOPMENT, EMPLOYMENT, AND BUDGET 36 CFR 219 .7(r)	To determine the effect of devia- tions in budget levels	Budget levels and their effects on Plan implementation	Final Budget Advice	High	High	Annual	Annual	+10% deviation, by funding item, from the predicted levels in this Plan
L - 1	FACILITIES 36 CFR 219 .12(K)(1)	To see if the the road closure objectives of this Plan are being met	Miles of road closed	1 Transporta- tion Infor- mation Sys- tem (TIS) 2 Annual tra- vel plan 3 Spot checks	High	High	Annual	5 Years	+20% of the propor- tion of open to closed roads, as described in this plan, by the end of the first decade
L - 2	FACILITIES 36 CFR 219 .12(K)(1)	To determine if the road den- sities predic- ted in this Plan continue to be valid	Road density	EA's	High	High	Annual	5 Years	Any increase in road density over that pre- dicted in this Plan
P - 1	PROTECTION 36 CFR 219 .12(K)(5iv)	Determine level of insect & dis- ease organisms following mgmt. activities.	Health of residual stand and surroun- ding stands.	Stand exam and annual aerial detect- ion surveys.	moderate	moderate	annual	2 years	Insect and disease levels increase bey- ond normal levels.

(1) Management Information Handbook code letter.

(4) The degree that monitoring can be expected to reflect the total Forest situation.

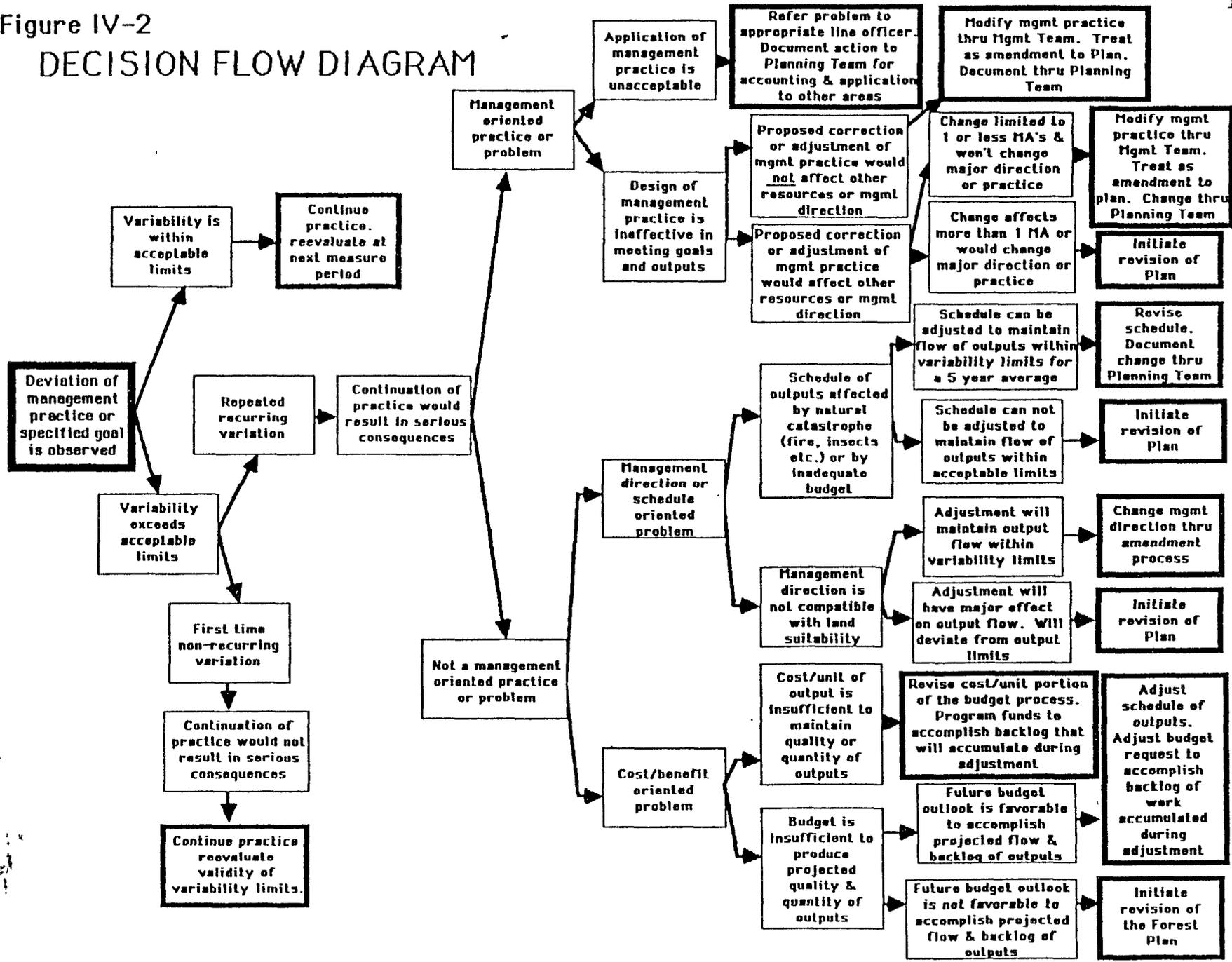
(2) General subject area and NFMA regulation.

(5) Sampling frequency and sample size where appropriate.

(3) The exactness or accuracy with which the data will be collected.

(6) Period for which data is collected prior to analysis and reporting.

Figure IV-2
DECISION FLOW DIAGRAM



KOOTENAI NATIONAL FOREST

FOREST PLAN

CHAPTER V - ANALYSIS of the MANAGEMENT SITUATION (Summary)

V. SUMMARY OF THE ANALYSIS OF THE MANAGEMENT SITUATION

The Analysis of the Management Situation (AMS) is the fourth step of the ten step planning process. The purpose of the AMS is to determine the demand for various resources from the Kootenai National Forest and to determine the potential to satisfy that demand. The information presented in this summary can be found in more detail in the Final EIS for the Kootenai Forest Plan.

A. Timber

Demand:

The supply requirements for timber from the Kootenai National Forest is related to mill capacity, and to the national demand for forest products. Mill capacity within the five-county market area (Lincoln, Sanders, and Flathead counties in Montana and Boundary and Bonner counties in Idaho) is estimated to be 801 MMBf annually. The two-county submarket area (Lincoln and Sanders county, Montana) mill capacity is estimated to be 260 MMBf. The total harvest within the submarket area has averaged 346 MMBf annually (1970 - 1979). Annual harvest from the Kootenai National Forest for the same time period has been 187 MMBf annually. Local mills account for approximately 1.02% of the national market. Table V-1 identifies the range of regulated timber harvest volumes (live green and recently dead volume) from the suitable timber lands.

Table V-1 Average Annual Timber Harvest by Decade (MMBf)
(live green and recently dead timber only)

<u>Alternative or Resource Potential</u>	<u>Decade</u>				
	<u>1985- 1994</u>	<u>1995- 2004</u>	<u>2005- 2014</u>	<u>2015- 2024</u>	<u>2024- 2034</u>
Maximum Potential	255	245	264	316	345
Minimum Level	80	0	0	0	0
Current Direction	150	152	157	143	162
Final Plan	202	230	227	213	234

B. Facilities

1. As of January, 1986, there were approximately 6,200 miles of road (3,940 miles of local roads and 2,260 miles of arterial and collector roads) in place on the Kootenai National Forest. The amount of new road required varies directly by the amount of suitable land available for timber harvest (See Tables V-2 and V-3).
2. Road restrictions, either year-long or seasonal, are done in order to minimize the cost of maintaining a road after a project has been completed, to protect the recreation values of an area or to protect the wildlife values during seasons of use. There are currently 1,600 miles of road on the Kootenai National Forest that are restricted either seasonally or year-long. Table V-4 identifies the range of restricted roads.

Table V-2

Average Annual Road Construction by Decade (Miles)*

<u>Alternative or Resource Potential</u>	<u>Decade</u>				
	<u>1985- 1994</u>	<u>1995- 2004</u>	<u>2005- 2014</u>	<u>2015- 2024</u>	<u>2025- 2034</u>
Maximum Potential	310	259	187	0	0
Minimum Level	1	0	0	0	0
Current Direction	185	157	138	22	3
Final Plan	237	249	37	3	0

* The road construction mileages are calculated from 1978 which does not include the 1,400 miles of road which have been built since that period up to 1/1/86.

Table V-3 Total Roads Constructed by the Year 2030

<u>Alternative or Resource Potential</u>	<u>Miles</u>
Maximum Potential	12,360
Minimum level	6,200
Current Direction	9,840
Final Plan	10,050

Table V-4 Total Roads Restricted

<u>Alternative or Resource Potential</u>	<u>Miles</u>
Maximum Potential	6,080
Minimum Level	450
Current Direction	4,590
Final Plan	5,730

C. Recreation

1. Recreation demand is expected to vary directly with the population in the market area and adjoining metropolitan areas (Spokane, WA).
2. Developed recreation opportunities do not vary by alternative, and are considered to be adequate, Forestwide, at least through the fifth decade. (Localized facility shortages could occur in highly desirable locations.) Semi-primitive motorized recreation and roaded recreation opportunities vary by the amount of developed management areas on the Forest. They are adequate to meet anticipated demand. The forms of roadless recreation vary by alternative: Semiprimitive nonmotorized recreation occurs on roadless areas excluding wilderness (Table V-5). Primitive recreation occurs, for this analysis, in wilderness areas (Table V-6).

Demand:

The demand for semiprimitive nonmotorized recreation is expected to increase from 61,000 RVD's in the first decade to 87,000 RVD's in the fifth decade. The demand for primitive recreation is expected to increase from 18,000 RVD's in the first decade to 25,000 RVD's in the fifth decade.

Table V-5 Roadless-Nonwilderness Areas

<u>Alternative or Resource Potential</u>	<u>Acres</u>
Maximum Potential	364,900
Minimum Level	378,400
Current Direction	250,200
Final Plan	314,100

Table V-6 Wilderness Recommendations

<u>Alternative or Resource Potential</u>	<u>Acres</u>
Maximum Potential	403,700
Minimum Level	0
Current Direction	62,900
Final Plan	78,500

D. Wildlife and Fish

Wildlife

Even though all species of wildlife are important and are managed, elk were chosen as the indicator species of big game. Table V-7 represents the potential population based on the level and amount of habitat management. The elk population in 1983 is estimated to be approximately 5,500.

Table V-7 Elk Population by the Fifth Decade

<u>Alternative or Resource Potential</u>	<u>Number of Elk</u>
Maximum Potential	9,900
Minimum Level	7,200
Final Plan	7,700

Fish

In 1980, the catchable trout population on the Kootenai National Forest was estimated to be approximately 1,016,000 fish. The population includes the resident fish which inhabit the lakes, streams, and reservoirs year-long, and the migratory fish that move from the lakes and reservoirs into the streams to spawn. Planted trout and lake trout are not included in this estimate. Recent information concerning kokanee salmon populations in Kooconusa Reservoir indicate the present kokanee population is fluctuating, and fluctuations will occur until the reservoir situation stabilizes. The number of fish is primarily dependent on the miles of road constructed and the resulting sediment. Table V-8 displays estimated populations.

Table V-8 Catchable Trout by the Fifth Decade

<u>Alternative or Resource Potential</u>	<u>Number of Trout</u>
Maximum Potential	1,101,000
Current Direction	985,000
Minimum	961,000
Final Plan	972,000

E. Grazing

Demand for forage for domestic livestock has decreased steadily (40%) over the last ten years. All alternatives exceed the anticipated demand for the entire life of the plan.

F. Treaty Rights

The Flathead/Kootenai-Salish Indian Tribes have treaty rights which allow hunting and fishing on the entire Kootenai National Forest. In addition, certain sites are still in use by Native Americans exercising their rights under the Indian Religious Freedom Act.

G. Minerals, and Oil and Gas

Over the years the Forest has supported many small mines and a few large ones. These have produced lead, zinc, copper, silver, gold, tungsten, barite, vermiculite, and building stone. Most of these mines have been inactive for many years, but the few mines in production today contribute substantially to the nation's mineral wealth.

Principal among the currently producing mines on the Forest are ASARCO's Troy mine south of the town of Troy, and W.R. Grace's Zonolite Mine just northeast of Libby. The Troy mine, which produces silver and copper, is currently the nation's biggest silver producer. The Zonolite Mine is the largest producer of vermiculite in the world.

As the historic and contemporary mining activity might suggest, considerable portions of the Forest have a high potential for mineral production. The southwest quarter of the Forest has many areas that are considered to have high potential for silver-copper production. Several known deposits are currently being evaluated through exploratory drilling to estimate production potential. Additional silver-copper deposits are actively being sought by several companies.

The Forest is currently processing proposals submitted by ASARCO and U.S. Borax for the installation of major silver-copper mines. These mines would be located in the southern portion of the Cabinet Mountains. The annual production from these mines are estimated to be similar to that of the Troy mine and are expected to be in production for 24 to 29 years.

Interest in the oil and gas potential of the Kootenai is relatively new. This interest has been spurred by discovery of large oil and gas fields in the geologic province known as the Western Overthrust Belt. Although the Kootenai lies within the Overthrust Belt, it is unknown at this time whether or not the local geology is suitable for oil and gas discoveries.

Because of the geologic unknowns involved, the probability of finding oil and gas is difficult to assess. Historically the area has been considered unfavorable for finding oil and gas, but new geologic insights and preliminary seismic data have looked quite favorable to some in the petroleum industry. On the other hand, others in the industry remain skeptical about the area's potential. It may take several years of exploration before a reliable assessment can be made of the Forest's oil and gas potential. For the time being, the Forest considers the potential for oil and gas to be moderate across the entire Forest.