

Kootenai National Forest Plan

Final Environmental Impact Statement - Volume 1

United States
Department
of Agriculture



Forest Service

Kootenai
National Forest



FINAL ENVIRONMENTAL IMPACT STATEMENT

FOR THE

KOOTENAI NATIONAL FOREST

NORTHERN REGION

FOREST SERVICE

U.S. DEPARTMENT OF AGRICULTURE

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VOLUME I

FINAL ENVIRONMENTAL IMPACT STATEMENT

on the

Kootenai National Forest
Land and Resource Management Plan

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Abstract: This Environmental Impact Statement describes the Final Forest Plan and other alternatives, including a "no action" alternative, for managing the land resources of the Kootenai national Forest. The land area involved is 2,245,000 acres in Lincoln, Sanders, and Flathead counties, Montana, and Boundary and Bonner counties, Idaho.

The alternatives provide different mixes of management resulting in different levels of goods and services. The environmental consequences for the Final Plan and the other alternatives are displayed.

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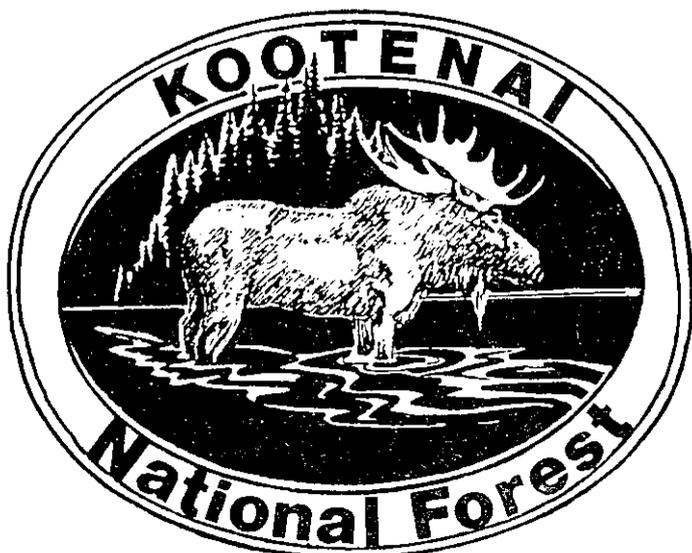
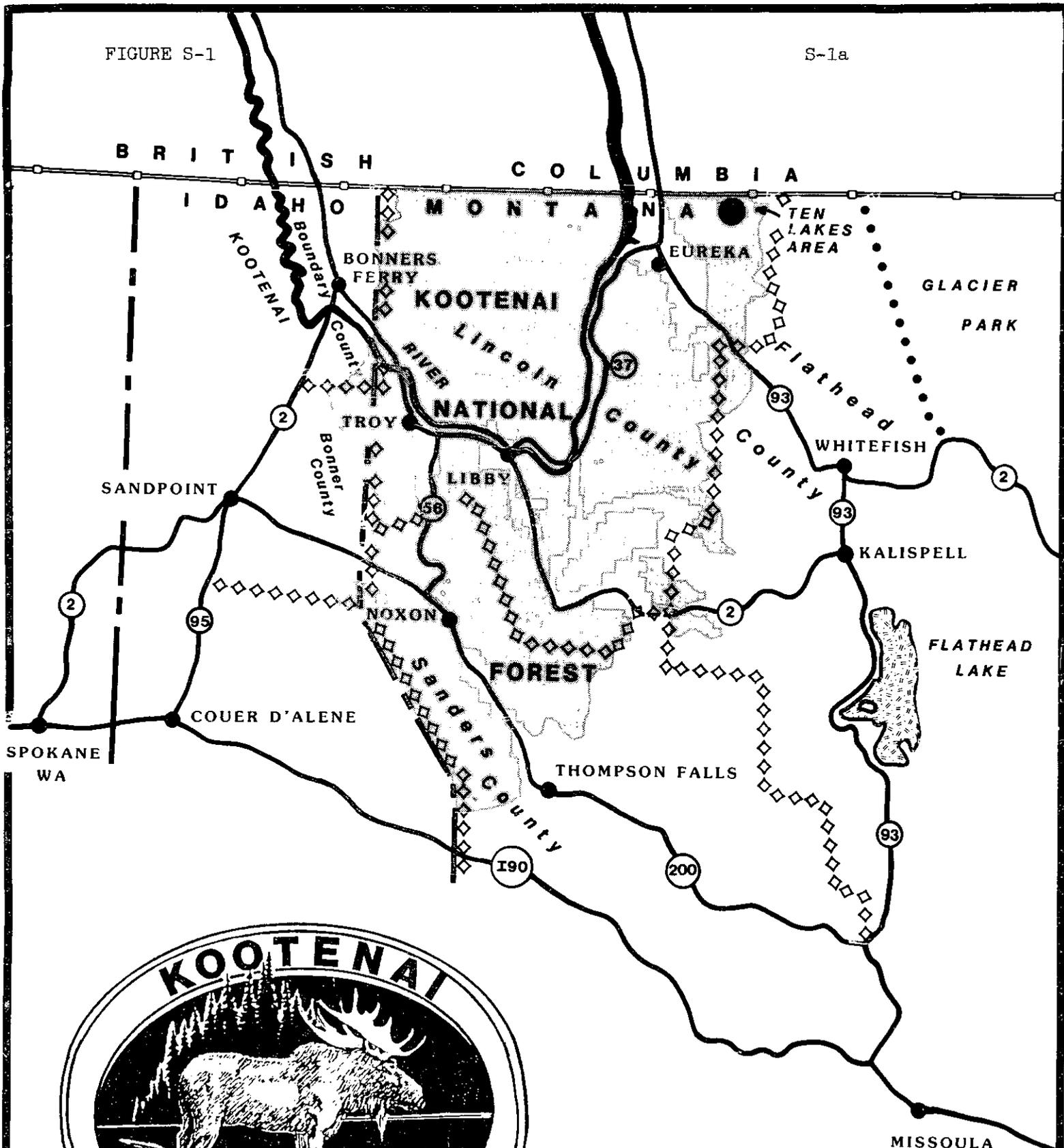
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FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE
KOOTENAI NATIONAL FOREST PLAN

SUMMARY

This summary highlights the major points brought out in the EIS. The contents of each chapter are condensed to provide the reader with a quick glimpse of the most important factors addressed in the EIS and to help the reader find the location of particular topics in the EIS for further reading.



Vicinity Map

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SUMMARY

CHAPTER I - PURPOSE AND NEED FOR ACTION

INTRODUCTION: This Final Environmental Impact Statement (EIS) is the required supporting document for the Kootenai Forest Plan and results from the direction of the Forest and Rangeland Renewable Resources Planning Act (RPA), the National Forest Management Act (NFMA), and the National Environmental Policy Act (NEPA). The Final Forest Plan (Alternative JF) described in this Final EIS is the basis for the Forest Plan document, which is a separate volume. The Forest Plan will guide management of the Kootenai Forest for the next 10-15 years unless conditions change significantly. Even though the analysis in the EIS projects results for many decades into the future, the Plan is only valid until it is revised, which is no longer than 15 years.

PLANNING AREA: The 2.2 million acre Kootenai National Forest is located in the extreme northwest corner of Montana and involves portions of Lincoln, Sanders and Flathead Counties in Montana, and Boundary and Bonner Counties in Idaho.

ISSUES, CONCERNS AND OPPORTUNITIES: Issues of concern to both the public and the Forest Service fall into six broad categories and are stated below:

- Timber Production and the associated Road Building, including the harvesting of Lodgepole Pine infested with Mountain Pine Beetle, and the Effect on Water Quality and Fisheries.
- Wilderness and Roadless Management.
- Wildlife and Fish Production, including Management for the Recovery of the Grizzly Bear, Old-Growth Timber-Dependent Species and Riparian Areas.
- Local Economic Effects, including Economic Stability and Diversity.
- Visual Quality Protection and the Effect on Timber Harvest.
- Minerals and Oil/Gas Exploration and Development, including the question of Access as a result of Roadless or Wilderness designation.

As a result of the Public Review of the Draft EIS, the effectiveness of the Monitoring and Evaluation Plan was an additional issue to be resolved.

CHAPTER II - ALTERNATIVES

ALTERNATIVE DEVELOPMENT: The fifteen alternative ways of managing the Kootenai National Forest plus the Final Forest Plan are summarized below and discussed in detail in Chapter II of the EIS. These alternatives were designed to provide different ways to resolve the issues so that the effects of different management options could be assessed. The basis of these alternatives was an Analysis of the Management Situation which explored the production capabilities of the Forest for various resource emphasis, including single and multiple-resource outputs, while meeting the required minimum management requirements.

Each alternative including the Final Forest Plan was formulated so that multiple-resource use occurred. Each alternative harvests timber, provides forage for livestock, provides suitable habitat for elk, grizzly bear and other wildlife species, provides recreation opportunities and so on. The differences between the alternatives and the response of each alternative to the issues and concerns is reflected in the amount of emphasis placed on individual resources.

DESCRIPTION OF ALTERNATIVES

1. Alt. A (No Additional Wilderness) provides the most cost-efficient landbase for timber management while meeting grizzly bear recovery goals as well as the other minimum management requirements. No additional wilderness is recommended in keeping with the intent of providing opportunities for timber management.
2. Alt. B (RARE II Wilderness) displays an historical perspective to the wilderness issue while providing timber management options. The wilderness recommendations portray those endorsed by the Administration in RARE II (April 1979). Otherwise this alternative is very similar to Alternative A and reflects similar tradeoffs of other resources in the effort to manage for timber production outside of the Proposed Wilderness Areas.
3. Alt. C (Montana Wilderness) displays a wilderness recommendation similar to the Montana Wilderness Bill of June 1984, with some additions on contiguous areas in Idaho. Timber management is emphasized outside of the Proposed Wilderness Areas so this alternative is much like Alternatives A and B except that the differing wilderness proposals cause different results.
4. Alt. D - RPA meets or exceeds the Renewable Resources Planning Act (RPA) goals assigned to the Kootenai National Forest for timber, wilderness, and wildlife. The Proposed Wilderness is the same as RARE II, as displayed in Alternative B.
5. Alt. E (RARE II Plus) exceeds the RARE II and June 1984 Montana Wilderness proposals by recommending some large blocks of land as wilderness and wilderness additions, while still providing much opportunity for timber management. Wildlife and fish production and visual quality protection receive less emphasis to provide timber management opportunities outside the recommended wilderness areas.
6. Alt. F (Maximum Elk) provides significant big-game (elk) habitat management opportunities. Elk production receives more emphasis than timber production and no additional wilderness is recommended. This allows for elk management opportunities including the use of timber harvest to benefit elk through manipulation of elk habitat. Visual quality receives a high level of protection because of the lower timber harvest and road building levels.
7. Alt. G (Significant Wilderness) recommends significant amounts of wilderness while providing a high level of timber production. Other wildlife and fish production and visual quality protection receive less emphasis to provide for timber management outside the recommended wilderness areas. This alternative is very similar to Alternatives B, C and E in terms of the types of tradeoffs.
8. Alt. H (Maximum Wilderness) recommends the highest possible amount of wilderness while maintaining a high level of timber production. Other wildlife and fish production and visual quality protection receive less emphasis to provide for timber management outside of recommended wilderness areas. This alternative is very similar to Alternatives B, C, E and G, and serves as a baseline for evaluating wilderness tradeoffs.

9. Alt. I - Current Direction displays the direction that the Kootenai National Forest is currently following. The timber harvest and budget approximate the average amount actually cut and spent during the 1980-82 period. The wilderness recommendations are those endorsed by the Administration in RARE II which is the same as Alternatives B and D. Visual quality protection is provided for in sensitive areas along major travel routes and around local communities. This alternative is the baseline to measure changes in all resources, costs and benefits and is referred to as the "No Action" or "No Change" alternative.

10. Alt. J - Proposed Action provides a combination of wilderness, roadless and timber management designations that provide for both economic stability and future options. The recovery goals for grizzly are met with less risk of losing the population and roadless designations are provided where timber management appears to be environmentally unsound or not cost efficient. Other wildlife and fish production receive more emphasis to provide for a balanced multiple-resource program. Visual quality protection is provided in sensitive areas such as along major travel routes and around local communities and recreation sites. The wilderness recommendation is similar to the RARE II proposal, but is significantly different in the location and amount of individual areas recommended. Regulated timber harvest levels are higher than the Current Direction (Alternative I), but this requires a higher budget. Minerals and oil/gas exploration accessibility is maintained at about the current level and options are preserved for minerals, timber, and wilderness by recommending less additional wilderness and more roadless designations.

10a. Alt. JF - Final Forest Plan displays the final conclusions as a result of the public-review comments analysis and is a variation of the Proposed Action (Alt. J). The intent is to provide a combination of wildlife, wilderness, roadless and timber management designations that provide for balance, economic stability and future options. This was provided with some additional wilderness, and a higher level of old-growth timber for wildlife habitat, while providing timber sell levels which contribute to local economic stability. Other wildlife, especially old-growth timber dependent species receive more emphasis to provide for a balanced resource program. Increased emphasis is also placed on the protection of water quality and fish habitat. The recommended wilderness proposal is a combination of parts of the RARE II Final EIS and the June, 1984, Montana Wilderness Bill.

11. Alt. K - Departure on Proposed Action provides for an increase in timber harvest levels for the first two decades to more closely approach the RPA timber goals and is essentially the same as Alternative J except that a departure from non-declining sustained yield is allowed.

12. Alt. L (Maximum Timber) provides for the highest possible timber yields. No additional wilderness is recommended and roadless recreation is provided only on non-productive lands to provide options for timber management. Wildlife and fish production and visual quality protection receive less emphasis to provide options for timber management. This alternative serves as a baseline for evaluating timber management tradeoffs.

13. Alt. M - PNV provides for the highest possible present net value (PNV). Timber harvest levels are allowed to depart from non-declining yield and no additional wilderness is recommended. Roadless designations are provided where

they achieve the highest PNV. Wildlife and fish production and visual quality protection receive less emphasis because they generally contribute less to PNV than does timber management. This alternative serves as a baseline to measure opportunity costs for all the other alternatives.

14. Alt. N (No Wilderness with Departure) provides high timber harvest levels in the first decade. It is similar to Alternatives A and M, but includes a departure from the non-declining yield schedule of Alternative A. Roadless designations are provided where timber management is not cost efficient. Wildlife and fish production and visual quality protection receive less emphasis to provide timber management options.

15. Alt. O (Maximum Roadless & Visual Quality) provides significant protection for roadless areas and visual quality. The wilderness recommendations are similar to the June 1984 Montana Wilderness Bill (as in Alt. C) and roadless recreation is recommended for all the remaining inventoried roadless areas. Timber management receives less emphasis in order to meet the recommended visual quality goals in all areas outside of identified grizzly habitat.

COMPARISON OF ALTERNATIVES: The ability or potential for each alternative to respond to the major issues is displayed in Chapter II of the EIS and summarizes how each alternative compares in relation to the other alternatives with regard to some of the pertinent indicators of issue resolution. Some of these indicators are: the amount of timber harvest and new road construction in the first decade, inventoried roadless areas remaining after the first decade, the amount of road restrictions needed and many more items.

Following these displays in Chapter II are additional displays of some of the key values or tradeoffs that are considered critical to resolving the major issues of concern. These items determine the Net Public Benefit and are:

- Jobs and Community Stability
- Visual Quality
- Wilderness and Roadless Quality
- Accessibility for Mineral and Oil/Gas Exploration
- Grizzly Bear Recovery
- Options associated with Lodgepole Pine Management
- Road Access
- Options associated with Size of the Appropriated Budget
- Old-Growth Timber Management for Wildlife Habitat

CHAPTER III - AFFECTED ENVIRONMENT

General Setting: The Kootenai National Forest is within the Northern Rocky Mountain physiographic province and includes the Cabinet, Purcell and Salish Mountains, and the Whitefish Range. The Kootenai and Clark Fork rivers are the primary watersheds.

The area is generally tree-covered with almost 80% of the forest capable of commercial timber production. Hunttable populations of all big-game, except antelope, exist and many species of trout and other game fish inhabit the streams and lakes of the Kootenai Forest.

The Forest is essentially developed with 28% of the area roadless.

The local economy is heavily influenced by the wood products industry which comprises the bulk of the total basic employment in Lincoln County, the area most directly affected by Kootenai National Forest activities. Mining is also important with two major mines within the Forest boundary. Chapter III in the EIS has more detailed information on each of the following resources.

CURRENT RESOURCE SITUATION

Timber: The Forest contains 1,788,000 acres of tentatively suitable timber land. As of 1982 about 120,000 acres were infested with Mountain Pine Beetle which has been growing each year and represents a significant potential for timber volume loss of Lodgepole Pine. The historic timber program activities are displayed as follows:

Historic Timber Program Data (1974-1983)

Regulated Volume Sold - 170 MMbf/yr.	Regulated Volume Cut - 148 MMbf/yr.
Unregulated Volume Sold - 28 MMbf/yr.	Unregulated Volume Cut - 25 MMbf/yr.
Total Volume Sold - 198 MMbf/yr.	Total Volume Cut - 173 MMbf/yr.

Roads: There were 6,200 miles of road on the Kootenai as of January 1, 1986. Most of these were constructed for timber activities over the years and are currently used for timber, recreation, and other purposes.

Recreation: Total recreation use on the Forest has been increasing steadily. Recreation opportunities are linked to 28 campgrounds, 7 picnic grounds, one winter sports area, 1,300 miles of trails, and the 6,200 miles of existing roads. Major activities include hunting, fishing, camping, hiking, cross-country and downhill skiing, snowmobiling and driving for pleasure.

Wilderness and Roadless Areas: Existing and potential wilderness includes the 94,000 acre Cabinet Mountain Wilderness plus 404,000 acres of inventoried roadless area in 32 separate locations. In addition, the 34,000 acre Ten Lakes Wilderness Study Area (MWSA) is located in the northeast corner of the Forest. This MWSA is being addressed in a separate planning process and report.

Wildlife: Big-game hunting is linked to populations of the hunted species which are elk, moose, bighorn sheep, mountain goat, whitetail and mule deer, black bear, and mountain lion. Elk is used as an indicator species and the population has been increasing with current estimates of the herd at approximately 5,500 animals. There are several threatened and endangered species on the Forest, including the bald eagle and grizzly bear. Habitat information indicates that the Forest is capable of supporting recovered populations.

Fish: The Forest provides habitat for brook, rainbow, cutthroat and bull trout, whitefish, sturgeon, ling, perch, bass and kokanee salmon. Trout is the indicator species and the protection of the trout population is keyed to the maintenance of water quality.

Grazing: Domestic livestock grazing is seasonal and has amounted to about 13,000 animal unit months of forage use over the last few years. Sufficient transitory range is available to supply more forage than is currently used.

Minerals: Mineral resources on the Kootenai National Forest include gold, silver, copper, building stone, and vermiculite. There has been exploration for oil and gas deposits, but none have yet been verified. The W.R. Grace vermiculite mine is the largest vermiculite producer in the world. The Asarco mine is currently the nation's largest silver producer. Two other mines similar to the Asarco mine have been proposed on the Forest.

CHAPTER IV - ACTIVITIES AND THEIR EFFECTS

Chapter IV of the EIS looks at the alternatives in terms of the activities which would be necessary to implement them. These activities have environmental consequences which are discussed in detail in Chapter IV and summarized below.

Timber harvest directly alters biological communities by changing the composition of the vegetation. **On the negative side:** timber harvest usually results in the systematic removal of mature timber, and requires road construction which can reduce roadless recreation opportunities and affect water and visual quality. In some circumstances, net reductions to the U.S. Treasury can also result. **On the positive side:** the maintenance of vigorous and healthy timber stands, and associated effects such as economic stability in timber-dependent communities, positive returns to the U.S. Treasury, supplies of needed products, and in many situations, improvement of wildlife habitat. The size of the impacts both negative and positive are generally associated with the quantity and type of timber that is harvested.

Wilderness or non-motorized recreation designations can have effects upon other resources if suitabilities for those resources exist on the designated lands. **On the negative side:** timber management is foregone in favor of roadless management and effects can include reductions in wood products supplied to the nation and a net loss of jobs in timber-dependent communities. **On the positive side:** benefits include maintenance of roadless recreation opportunities and old-growth timber habitat for timber-dependent wildlife species which would be reduced under timber management designations.

Grizzly Bear population recovery activities involve direct habitat improvement plus limitations upon other activities such as timber harvest. **On the negative side:** where timber management practices are altered, such as through the limitation of the amount of area that can be entered at any one time, long-term as well as short-term harvest quantities may be reduced. **On the positive side:** the benefit of these activities and limitations is a reduced risk of loss of the Grizzly population.

Minerals, and Oil/Gas exploration generally has minimal long-term effects upon the areas involved. Development on the other hand can have long-term effects upon all the surrounding resources. **On the negative side:** human activity may displace wildlife species and reduce the quality of their habitat; and removal of the mineral in the present represents a loss of that resource to future generations. **On the positive side:** jobs and community stability are enhanced during the period that the resource is being removed; and removal of the resource in the present provides opportunities to use the material in ways which benefit both present and future generations.

Short-Term Use vs. the Maintenance and Enhancement of Long-Term Productivity:

Short-term use includes activities such as timber harvest, mineral exploration, recreation use, and livestock grazing which usually occur in localized areas and are, many times, seasonal in duration. Long-term productivity is the capability of the land to provide resources and services over time. Some alternatives emphasize a higher concentration of short-term uses which can result in more negative impacts and costs, but all the alternatives maintain the long-term productivity of the land although some incur a higher degree of risk in the assurance of that goal.

Irreversible and Irretrievable Commitment of Resources: Many activities such as timber harvest, livestock grazing and recreation use, do not cause an irreversible or irretrievable commitment of resources since they involve the use of renewable resources. The utilization of non-renewable resources such as minerals and cultural resources are considered irreversible. All the alternatives allow for the exploration and development of minerals under the rules and regulations prescribed in the 1872 Mining Law and the associated mining regulations.

Adverse Effects Which Cannot Be Avoided: Timber harvest and road construction will alter the status of some lands that are roadless and undeveloped. Wilderness and roadless designations will remove some lands from the suitable timber base and eliminate the opportunity to harvest timber which can provide wood products and jobs for a timber-dependent community. All alternatives except H and O will alter some existing roadless lands. Alternative L provides for the least impact on timber production.

Mitigation Measures: are included in the Forestwide Standards and Guidelines and Management Area prescriptions in the Forest Plan document. Minimum Management requirements are prescribed for each alternative including the Final Forest Plan and are displayed in Chapter II of the EIS.

CHAPTER VI - CONSULTATION WITH OTHERS

290 responses were received from the public review of the Draft EIS and are summarized in Chapter VI of the Final EIS. Copies of the letters received and the Forest Service response is displayed in Appendix E.

Summary of What the Public Said:

A large segment was unhappy with the Proposed Forest Plan as presented in the Draft EIS. This segment was polarized into two general groups: (1) those that felt that the Proposed Action was biased on the side of development; such as timber harvesting and road construction at the expense of wilderness, water quality, old-growth timber, and fisheries, and (2) those that felt that the Proposed Plan favored wilderness, roadless areas and wildlife (including the grizzly bear) at the expense of people, timber harvest and jobs, and minerals and oil/gas.

Within this general polarized situation was some common ground. There was general agreement that the timber harvest levels experienced over the last decade are acceptable and/or should not be reduced. General concern was also expressed about the "realism" involved in the Proposed Plan's budget requirement (a 22% increase) and what will be "sacrificed" if a budget shortfall occurs.

Common ground was also observed in the area of water quality and fisheries. The public requested that these resources receive adequate protection.

Summary of Changes between the Draft and Final EIS;

The Proposed Forest Plan (Alt. J) was modified to resolve the concerns raised during the Public Review period and is presented in the Final EIS as Alt. JF (Final Plan). It provides some additional recommended wilderness, and a higher level of old-growth timber retention for dependent wildlife species. It also maintains a timber sell level which will provide for local economic stability while reducing the total number of new roads needed to support timber production. The first decade annual budget was reduced by \$1,100,000 and the Monitoring and Evaluation Plan was reviewed and strengthened to protect water quality and fisheries.

Table S-1

Kootenai National Forest Final EIS Summary

The following table compares items that are important differences between alternatives.

A Tabular Comparison of Alternatives

Alternative	/1/ Total Planned Timber Sale Volume (million board feet)	Suitable Timber- land (thous. acres)	/1/ /4/ Total Planned Lodgepole Pine Harvest (million board ft.)	/3/ New Road Constr- uction (miles)	Recom- mended Wilderness (thous. acres)	Total Road- less- Manage- ment (thous. acres)	/5/ Old- Growth Timber Retained (percent of Forest)	/1/ /2/ Appro- priated Budget (million \$)	/2/ Present Net Value (million \$)
A (No Wild)	261	1,470	87	5,070	0	399	8	21.7	1,143
B (RARE II)	257	1,464	88	5,000	63.9	428	8	21.6	1,136
C (MT Wild)	260	1,466	90	4,950	81.3	419	8	21.8	1,129
D (RPA)	262	1,595	84	5,490	63.9	410	8	21.5	1,064
E (RARE II+)	251	1,425	80	4,750	186.6	476	8	21.1	1,113
F (Max.Elk)	189	1,132	70	3,650	0	401	8	16.8	658
G (Sig.Wild)	246	1,386	74	4,550	304.9	534	8	20.6	1,073
H (Max.Wild)	240	1,361	64	4,390	403.7	583	8	20.0	1,035
I (Cur.Dir.)	173	1,422	97	3,640	62.9	441	8	16.6	460
J (Prop.Act)	233	1,386	94	4,490	66.5	518	8	20.3	911
JF(Final Plan)	233	1,263	98	3,850	78.5	521	10	19.2	733
K (PA-Dep.)	265	1,386	99	4,520	66.5	518	8	22.0	911
L (Max.Tim)	294	1,788	53	6,160	0	349	8	28.1	1,046
M (Max.PNV)	302	1,484	117	5,030	0	389	8	24.1	1,163
N (No Wld/Dep)	285	1,481	107	5,070	0	393	8	23.2	1,148
O (Rdls/View)	248	1,389	94	4,480	81.3	574	8	21.8	1,064

/1/ Average Annual Results, /2/ 1978 Dollars, /3/ As of January 1, 1986, /4/ Included within Column 1.
/5/ Below 5,500 feet Elevation.

FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE
KOOTENAI NATIONAL FOREST PLAN

CHAPTER I
PURPOSE AND NEED FOR ACTION

This chapter describes the legal basis for this EIS and the Forest Plan. Included is a description of the relationship of this document to a Draft EIS that was issued in November of 1982, a brief description of the area and a list of issues, concerns and opportunities that are addressed in the remainder of the document.

B R I T I S H C O L U M B I A

I D A H O M O N T A N A

KOOTENAI Boundary

BONNERS FERRY

KOOTENAI

EUREKA

TEN LAKES AREA

GLACIER PARK

Lincoln NATIONAL FOREST

2

TROY

LIBBY

37

93

WHITEFISH

2

SANDPOINT

Bonner County

56

NOXON

SENDER'S FOREST

2

93

KALISPELL

FLATHEAD LAKE

95

COUER D'ALENE

Sender's County

THOMPSON FALLS

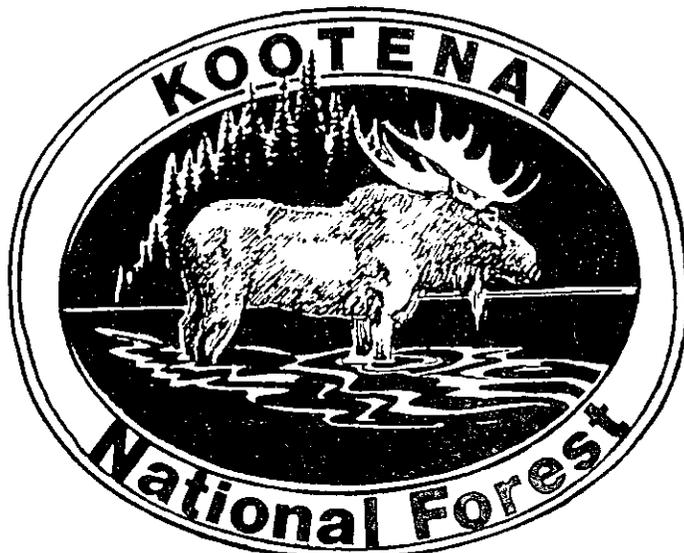
93

SPOKANE WA

I90

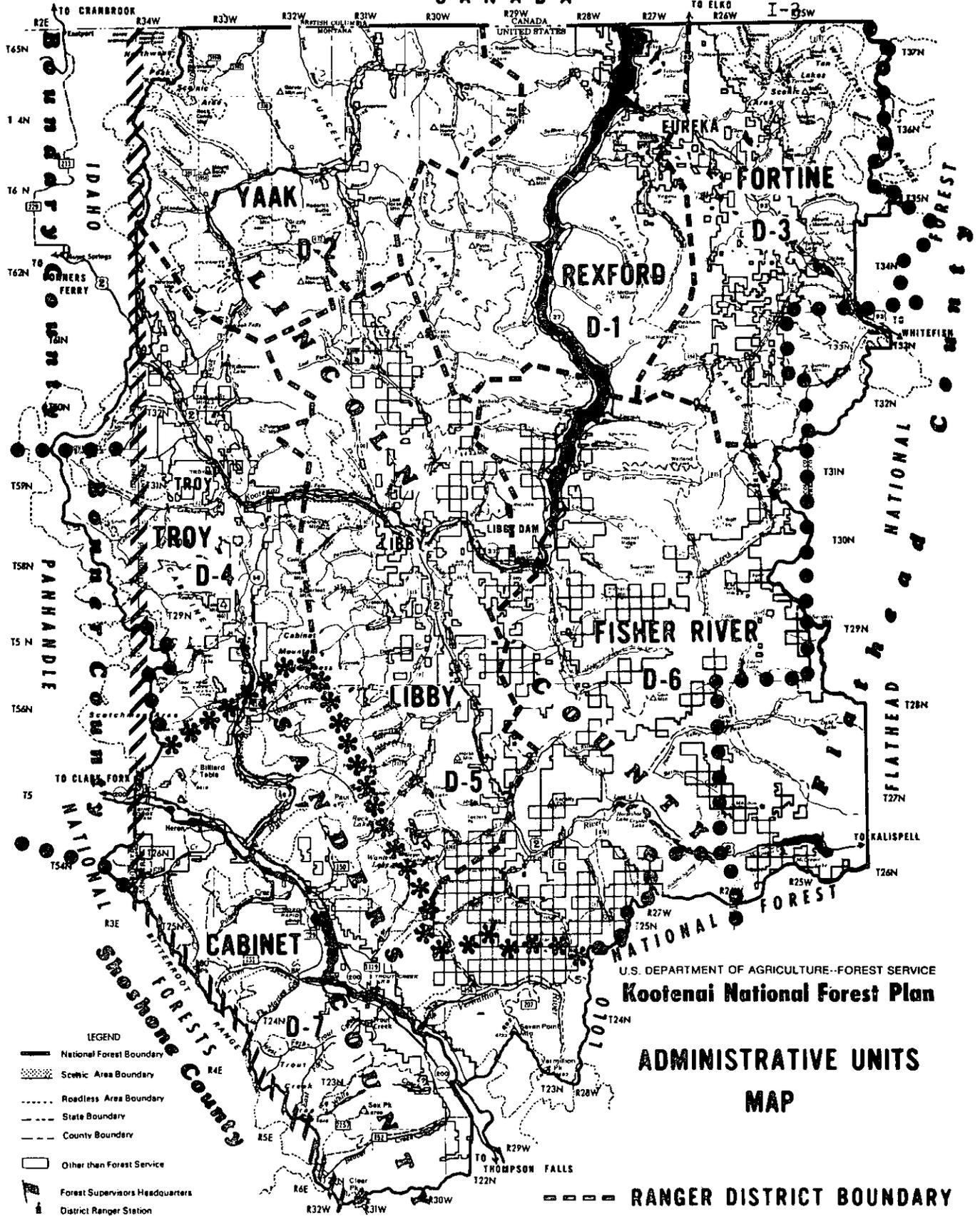
200

MISSOULA



Vicinity Map

CANADA



U.S. DEPARTMENT OF AGRICULTURE--FOREST SERVICE
Kootenai National Forest Plan

ADMINISTRATIVE UNITS MAP

- LEGEND**
- National Forest Boundary
 - Scenic Area Boundary
 - Roadless Area Boundary
 - State Boundary
 - County Boundary
 - Other than Forest Service
 - Forest Supervisors Headquarters
 - District Ranger Station
 - Recreation Site, Forest Service
 - Permanent Lookout Station
 - U. S. Highway
 - State Highway

- RANGER DISTRICT BOUNDARY
- COUNTY LINE
- COUNTY LINE AND RANGER DISTRICT, COMMON BOUNDARY
- STATE LINE

5/85



I. Purpose and Need for Action

A. Introduction

This Final Environmental Impact Statement (EIS) documents the analysis and discloses the significant environmental effects of alternatives for the future management of the land and resources of the Kootenai National Forest. The preferred alternative (JF) is the basis for the Forest Land and Resource Management Plan (Forest Plan) which is described in a separate document. The Forest Plan will guide management for the next 10-15 years unless conditions or demands change significantly. In the event of a significant change, the Forest Plan will be reviewed and revised as needed.

Development of this EIS and Forest Plan, is required by, and follows direction from the Forest and Rangeland Renewable Resources Planning Act (RPA), the National Forest Management Act (NFMA), and the National Environmental Policy Act (NEPA). Further direction is given by the implementing regulations of NFMA (36 CFR 219) and NEPA (40 CFR 1500-1508).

The analysis in this Final EIS and Forest Plan is designed to ensure multiple-use and provide a sustained yield of goods and services from the Kootenai National Forest. The intent of the Forest Plan is to provide a high level of net public benefits while resolving a series of public issues in an environmentally sound manner. (Net public benefit is the overall long-term value to the nation of all outputs and positive effects (benefits) less all associated Forest inputs and negative effects (costs) of producing priced and nonpriced outputs from Kootenai Forest lands.) It is important to note that while long-term effects have been estimated for many decades into the future, the Forest Plan is only valid until it is revised; committing the Kootenai Forest to a course of action no longer than 15 years.

B. National, Regional, and Forest Planning

The final Forest Plan (and the supporting analysis in this Final EIS) supersedes all previous land and resource management plans prepared by the Kootenai National Forest. The national program, required by RPA, sets national direction and output levels for National Forest system lands and are based on suitability and capability information provided by Forest Service Regions. Each Region, in a Regional Guide, divides its share of the national production levels among the Forests and also delineates standards and guidelines for management within the Region. Thus the Forest Plan includes direction provided by RPA, NFMA (including the implementing regulations) and the Regional Guide.

Projects, such as timber sales, etc, will be tiered to this Final EIS and additional site-specific analysis will be done, if needed, to ensure that the requirements stipulated in the Forest Plan can and will be achieved, e.g. water quality protection. Project monitoring will also be done to insure that the required standards in the Forest Plan and this EIS will be achieved. If significant deviations occur, then further action will be necessary such as increased compliance, project modification or cessation. Forestwide monitoring will determine the cumulative effects of the individual projects and determinations will be made concerning the significance of any

deviations from the projected desired results. If the deviations are significant then a revision of the Forest Plan may be in order which will re-introduce the following planning actions.

Planning Actions

This EIS results from the first 7 of 10 planning actions required by NFMA (36 CFR 219) which are listed below:

1. Identification of issues, concerns, and opportunities.
2. Development of planning criteria.
3. Inventory data and information collection.
4. Analysis of the Management Situation.
5. Formulation of alternatives.
6. Estimate the effects of alternatives.
7. Evaluate alternatives.

Planning records, the documents and files which chronicle the first seven planning steps, are available for inspection at the Forest Supervisor's Office, 506 U.S. Highway 2 West, Libby, Montana. Reference is made to the planning records in both the EIS and Forest Plan. Refer to Appendices A and B for a detailed description of the process used in planning actions 1 through 7.

The public and governmental agencies were asked to comment on the Draft EIS and Proposed Forest Plan which was issued in July, 1985. The comments received were used to examine the results of the first seven planning steps and to modify the Proposed Forest Plan. This Final EIS and Forest Plan will then be used by the Regional Forester as the information base for a record of decision to complete the following planning steps:

8. Selection of the preferred alternative.
9. Plan implementation.
10. Monitoring and evaluation.

C. Overview of the Forest's Location

The Kootenai National Forest is situated in the extreme northwest corner of Montana and located primarily in Lincoln and Sanders Counties, Montana (77% and 19%, respectively). The remaining 4% is located in Flathead County, Montana and Bonner and Boundary Counties, Idaho (2%, 1% and 1%, respectively). See the Vicinity map.

The Forest covers an area about 70 miles wide and 85 miles long which encloses 2.5 million acres. Within this external boundary are 0.3 million acres of various private or State lands, leaving the total net Kootenai Forest acreage at 2.2 million acres.

Principal towns within the Forest boundary include Libby (Lincoln County seat), Eureka, and Troy. The total combined population within the Forest boundary is less than 25,000 people. The closest large urban areas are Kalispell and Missoula, Montana; Sandpoint and Coeur d'Alene, Idaho; and Spokane, Washington.

Productive forest land covers 80% of the Forest which supplies 16% of the total National Forest timber harvest in the Northern Region, and the extraction and processing of timber and minerals comprises the bulk of the total basic employment.

The Kootenai Forest is primarily developed with approximately 75% of the land area containing roaded access. On the portion that is primarily undeveloped with no road access, the Cabinet Mountains Wilderness (94,000 acres) is located in the center of the Forest and the 34,000 acre Ten Lakes Montana Wilderness Study Act (MWSA) Area is located in the northeast corner bordering on Canada. An additional 404,000 acres are roadless (in 32 different locations) which, when combined with the existing wilderness and wilderness study area, accounts for 24% of the total Forest acres (532,000 acres).

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

Alternatives for wilderness for 32 roadless areas on the Kootenai are displayed in this Final EIS. (Eleven of these roadless areas are shared with adjacent Forests.) Recommendations for the original Ten Lakes Montana Wilderness Study Act Area will be a part of the Forest Plan record of decision. A separate Report and Proposal was released in November 1982 and the final recommendation to Congress will be contained in a separate document. The Ten Lakes MWSA area will be managed to protect its wilderness character pending review of the final recommendation and final action by Congress.

D. Relationship to Previously Released EIS

In November 1982, the Kootenai National Forest released a proposed Forest Plan and Draft Environmental Impact Statement. The public review period ended April 15, 1983 which included a 45-day extension. The comments received during that review period resulted in many changes being made to that initial Plan. The most significant changes were:

1. The designation of all grizzly habitat situations 1 & 2 (Interagency Guidelines) to management which is compatible with grizzly bears (1,036,000 acres, or 46% of the Kootenai National Forest). This was done to comply with compensation measures suggested by the U.S. Fish and Wildlife Service in the jeopardy opinion resulting from their review of the original proposed Forest Plan.
2. Addition of the wilderness issue whereby 32 inventoried roadless areas on the Kootenai, representing 404,000 acres, were evaluated for wilderness.
3. Specific designations and prescriptions to insure old-growth timber habitat will occur on approximately 8% of the Forest land below 5,500 feet elevation (149,000 acres) and be reasonably distributed in each drainage where available.

4. Additional areas and acreages designated to roadless dispersed recreation to provide a distribution of a variety of roadless and primitive recreation experiences on the Kootenai (an addition of 77,000 acres).

The total effect of these changes resulted in significant modifications to the original alternatives (including the original Proposed Action). In accordance with direction provided by regulations implementing NEPA, it was decided to issue a new Draft EIS in July, 1985, and seek additional public comment before issuing this Final EIS and Forest Plan.

E. Issues, Concerns, and Opportunities

The first of the 10 planning steps involves identification of issues, concerns, and opportunities (ICO's). This step determines what benefits people want in terms of goods, services, uses and environmental conditions. To aid in this step, public workshops were held during October and November 1979 in Libby, Eureka, Troy, and Trout Creek. Agencies, groups, and individuals were solicited for their concerns about Forest land use and management.

Workshops were held in October 1979 concerning the MWSA areas, including Ten Lakes, in Libby and Eureka. Additional public involvement was initiated in September, 1983 to aid in resolution of the roadless designation question. Prior to this, Forest planning efforts had examined a broad range of uses for roadless areas but had not included an evaluation for wilderness designation, except for the Ten Lakes Montana Wilderness Study Act Area. The Forest had relied on earlier evaluations and recommendations made in the RARE II (Roadless Area Review and Evaluation) Final EIS issued in April, 1979. After the Ninth Circuit Court decision on the RARE II EIS, the NFMA regulation (219.17) was revised to include an evaluation of roadless areas for wilderness in the Forest Planning process.

Over 500 separate comments were received during the public participation effort on ICO's. The ICO's were analyzed using criteria including:

- Can the issue be resolved by the Forest Service?
- Can the issue be dealt with more quickly outside the Forest planning process?
- Is the issue widespread across the Forest?
- What is the intensity of the issue?

Comments received from the public during the review period for the November 1982 EIS, served to modify somewhat the original list of ICO's identified in the Fall of 1979. No new issues were raised during the original Draft EIS review period but some issues were shown to be less intense than previously indicated. See Appendix A for more detail on the identification of the issues, concerns and opportunities.

In July 1985, a new Draft EIS was distributed to the public, including various Federal and State agencies, and elected Public officials. Public meetings were held in Libby, Noxon, and Kalispell, Montana, to answer questions and clarify any misunderstandings. As a result of this public

review the original issues were verified and some additional concerns were identified.

Following are the ICO's addressed by the Kootenai Forest Plan:

1. Timber Volume - How much timber should the Kootenai provide for sustained yield purposes? (Associated with this issue is the national concern for timber sales that do not fully recover their costs.) Public comment was polarized on this issue: from requesting no increase over the historic harvest level, to ensuring adequate supplies to provide jobs and community stability. Comments received from State officials and the Public questioned the assumptions used to determine timber supply and demand. This has resulted in the Montana Timber Supply analysis which has been incorporated into this EIS.
2. Transportation Facilities (Roads) - How should roads be designed, constructed, and managed and what are the attendant costs on other resources? Public comment was generally opposed to increased road construction because of the perceived negative impacts to fisheries and water quality.
3. Roadless Recreation - How many roadless recreation opportunities should the Kootenai provide and where should they be located? Public comment was polarized between those wanting more protection for roadless areas to protect wilderness, wildlife and water quality, to those opposed to roadless management because of the perceived negative impact on mineral exploration and timber harvesting.
4. Threatened and Endangered Species - How can the Kootenai provide and maintain identified habitat for threatened and endangered species, especially grizzly bears? Public comment is generally polarized between those wanting increased protection for the grizzly bear to those fearful that increased protection will result in the loss of timber and mining opportunities and the resultant loss of jobs.
5. Special Wildlife Habitat - How should special habitats such as riparian areas, old growth timber areas, and snags be managed and where should they be located? The public generally favored increased protection for old-growth timber habitats for dependent wildlife species, and increased protection for riparian areas (which related to the concern for water quality and fisheries - See Issue #9, below).
6. Local Economic Impacts - How will changes in the Kootenai Forest Plan affect the local communities' economies? The public was generally concerned about the potential loss of jobs due to the perceived decreased opportunities for timber harvest and mining.
7. Wilderness - Which, if any, of the identified roadless areas on the Kootenai should be recommended to Congress for wilderness designation? The Public was generally polarized between more wilderness (especially Pellick Ridge on Scotchman Peak) to no more wilderness because of the perceived negative impact on timber and mining and the resultant loss of jobs.

8. Minerals, Gas and Oil - How should conflicts between mineral exploration and development and other resource values be resolved and where, and under what conditions, should the Kootenai accommodate potential gas and oil development? The public was generally polarized between those concerned about potential increased mining and the perceived negative impacts on various resources such as wilderness and water quality, to those concerned about decreased opportunities and the resultant loss of jobs.
9. Wildlife and Fish Habitat - Where and how much wildlife and fish habitat should the Kootenai provide, how should that habitat be managed, and how can adverse impacts be mitigated? The Public generally supported increased protection for wildlife and fisheries, particularly regarding water quality protection.
10. Esthetics - How much change from the natural appearing landscape is acceptable or desirable? The public generally supported the visual quality protection currently being provided.
11. Landownership Adjustment - How can intermingled ownership patterns be improved to facilitate both Kootenai and private land management objectives? (Includes both large and small landowners.) The public generally supported the Landownership Adjustment direction currently being provided.
12. Diseases and Pests - What is the level of protection necessary to protect the timber resource from unacceptable insect and disease damage, especially from the mountain pine beetle? The public generally supported continued action to reduce the potential losses in Lodgepole Pine timber stands from the Mountain Pine Beetle infestation.
13. Fire Management - What role should Fire Management play in the protection and improvement of resources on the Kootenai, including management fires? The Public generally supports the current level of Fire Management.

Records leading to the identification of major ICO's are available for review at the Forest Headquarters and more detailed information on the development of ICO's and public participation can be found in Appendix A. Appendix A also contains a summary of the changes made to the November 1982 Draft EIS as a result of public comment and how that comment influenced the direction presented in the July 1985 Draft EIS. Chapter VI discusses how the Public Comment was analyzed for use in the resolution of the ICO's including the identification of additional concerns.

F. Changes Between the Draft and Final EIS

The changes that are discussed here came about as a result of input received on the 7/85 Draft EIS and the Proposed Forest Plan, or as a result of additional agency requirements or additional studies, such as the Montana Timber Supply analysis (See Chapter VI for the analysis of the public comment

and how that comment was used to develop a final Forest Plan). Some additional analysis was performed (See Appendix B and Chapters III and IV) to determine the effects of various changes; those effects were assessed and compared (See Chapter II), and a Final Forest Plan was developed. The Final Forest Plan (Alt. JF) is now a variation of the Proposed Forest Plan (Alt. J) that was reviewed by the public during the July-October 1985 review period.

1. New Issues or Concerns

In 1985, timber sale receipts did not recover timber-related costs (See Chapter III). This concern about the economics of the timber program was addressed as an additional management concern and several options to deal with it were explored (See Appendix B). In addition, clarification has been added concerning evenage and unevenage timber management. Clarification has also been provided in the various tables and charts to distinguish between the 10-15 year Forest Plan period and the longer-term period displaying various projections that could result if the Forest Plan continued indefinitely.

The public input received in response to the 7/85 Draft EIS and Proposed Forest Plan reinforced and helped clarify the issues that were identified in the Draft EIS. The profile of several aspects of these issues were raised and they were given consideration in the development of the Final Forest Plan (Alt. JF). In particular, these aspects involved land designations on Pellick Ridge in the Scotchman Peak Roadless Area (Wilderness Issue), Old-Growth Timber Management (Special Wildlife Habitat Issue) and Water Quality (Wildlife and Fisheries Issue). In addition, technical concerns involved the economic values used in the analysis and the adequacy of the Monitoring and Evaluation Plan. Details on the public input and how it led to the Final Plan are provided in Chapter VI.

Additional information on Wild and Scenic Rivers is also provided in Chapter III as a result of public response to some Draft EIS's in the Region and national direction. For similar reasons, additional information on Timber Demand, Timberland Suitability, and other Timber Resource information is provided in Appendix B.

G. Reader's Guide

The remainder of the EIS is organized in the following manner:

Chapter II describes the alternatives and displays the resource outputs, costs, benefits, and major effects of meeting the objectives of each alternative. The environmental, economic, and social effects of alternatives are compared.

Chapter III provides a discussion of the existing condition of physical, biological, social, and economic components of the environment that may be affected by Forest management.

Chapter IV identifies the environmental consequences which could result from Forest management activities scheduled in each alternative.

Chapter V identifies the people who were involved in the Forest Planning Process.

Chapter VI provides a comprehensive discussion of the public input received on the 7/85 Draft EIS and Proposed Forest Plan, and how that input was used to help develop a Final Plan.

Appendices provide detailed subject information such as the development and resolution of original issues, concerns, and opportunities (Appendix A), description of the analysis process (Appendix B), inventoried roadless area descriptions evaluation (Appendix C), grizzly bear situation and management guidelines (Appendix D), and the Public's comments on the 7/85 Draft EIS and the Forest Service response (Appendix E).

The Glossary contains definitions of planning and other technical terms.

All of the documents and their supporting analysis are available for review at the Forest Headquarters, 506 U.S. Highway 2 West, Libby, Montana.