

Koolenai National Forest Plan Final Environmental Impact Statement

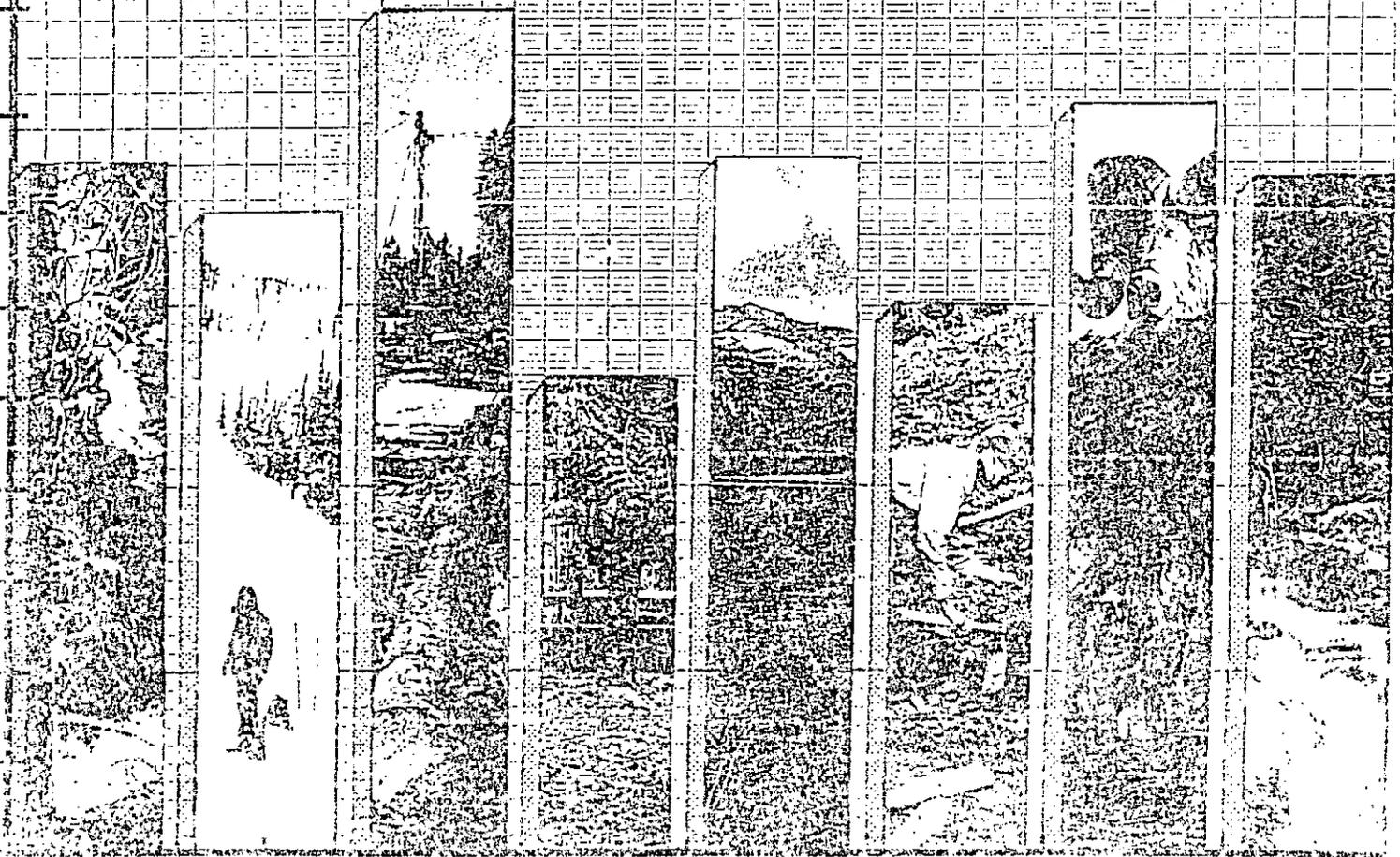
Appendix A - Issues, Concerns, Opportunities Appendix D - Grizzly Bear Management

United States
Department
of Agriculture



Forest Service

Koolenai
National Forest



FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE
KOOTENAI NATIONAL FOREST PLAN

APPENDIX A

THE IDENTIFICATION OF
ISSUES, CONCERNS
AND
OPPORTUNITIES

Appendix A

Identification of Issues, Concerns and Opportunities

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*** Denotes No Change Between the Draft and Final EIS

IDENTIFICATION OF ISSUES, CONCERNS, AND OPPORTUNITIES

Summary of Changes between the Draft and Final EIS

This Appendix described how the Issues, Concerns and Opportunities were identified and formulated, and what the procedure would be to attempt to resolve them for presentation in the Draft EIS. Since the Public Review of the Draft EIS, the resolution of the issues has been further analyzed and presented in Chapter VI of this Final EIS - Consultation with Others. There is no change in this appendix from the Draft EIS.

I. Introduction

A preliminary scoping of issues and concerns was completed by March 1979. Past planning actions and public involvement activities, along with current management concerns, led to the original listing of tentative issues.

A letter was mailed September 1979 to persons who previously indicated an interest in the Forest Plan. Included were times and dates for public workshops to be held as part of the issue identification process. Those who could not attend the workshops were asked to write in with their proposed issues.

A news release announcing Forest Plan workshops was distributed to local media. Public workshops were held in Eureka, Libby, Trout Creek, and Troy on October 29, 30, and November 1 and 5, 1979, and also for Kootenai employees on October 29, 1979. Planning team members and District staff conducted the workshops using the nominal group process. A total of 134 people attended the workshops and over 500 issues were identified and ranked.

Forty-three recipients of the letter mailed in September 1979, which included adjacent private landowners, responded. Together with the workshop participants, 182 people contributed directly to the formulation of the public issues.

A letter containing information on Forest Planning and tentative issues, was sent to the Montana State Clearinghouse, the Confederated Kootenai-Salish Tribe, and the Lincoln, Sanders, and Flathead County Commissioners, and to the Bonner and Boundary County, Idaho, Commissioners.

A Notice of Intent to prepare a Forest Plan and Environmental Impact Statement was published in the Federal Register in August 1979.

The 500+ issues identified at workshops and in letters were initially grouped by similarity and placed into 74 "issue categories." These categories were evaluated by an interdisciplinary team to determine which issues were appropriate for resolution by the Forest Plan. The criteria used to evaluate the issues were:

Does the Forest Service have the authority to resolve the issue?

Can the issue be influenced by Forest Service programs?

Can the issue be dealt with more quickly through another program or process outside the Forest Plan process?

Does the issue deal with land designations, scheduling, or management guidance?

What is the geographic distribution of the issue? Forestwide or on one District, area, or in one workshop?

Some issues raised by the public were determined to be more appropriately addressed and resolved outside the Forest planning process. These issues included:

What is the validity of the Timber Management Plan?

Trails should be maintained for horse use.

What is the role of the Forest Service in determining water rights and use permits?

Are fire control measures adequate?

Cost share program should be made more efficient and "quicker."

The Forest Service should take a more active role in law enforcement.

Special use issuing process should be revised.

Availability of firewood.

Issues meeting the criteria became the public issues, subject to final review by the Forest Management Team and the Regional Forester. In addition, management concerns identified in Spring 1979 which met the criteria, became the management concerns to be resolved by the Forest Plan.

Issue statements describing the nature of the issues as expressed by the public, were prepared and sent to the public in the Spring of 1980, for review and comment.

During the public review period of the November 1982 Draft EIS, which ran until April 1983, over 550 people responded with questions and concerns. The responses were analyzed using a response analysis technique which identified the major issues being raised by the public. The issues addressed by the public during their review of the EIS were compared to the initial list of public issues identified in Fall of 1979. It was found that most issues addressed initially were also addressed by the public three years later. Some issues were not addressed with the same intensity as in the beginning and some were addressed hardly at all. There were no new issues raised with any intensity.

The public's comments on the November 1982 DEIS served to modify the initial list of issues, concerns, and opportunities somewhat and helped to determine the method of resolving the issue. (See Section III, Issues, Concerns, and Opportunities).

In September 1983, the public was notified of the inventoried roadless area re-evaluation to be undertaken in the Forest Planning process, as a result of the Revised Regulations to NFMA dealing with roadless areas. Thirty two people responded with concerns about specific roadless areas or about the evaluation process.

II. Consultation With Others

A. Agencies and Indian Tribes

1. Contacts

The following agencies and Indian tribes are on the Forest Plan mailing list. They received Forest Plan mailers which provide information on status of the plan, as well as copies of the EIS released in November 1982.

Bonner County Commissioners
 Boundary County Commissioners
 Confederated Kootenai-Salish Tribal Council
 Environmental Protection Agency, Region 10
 Flathead County Commissioners
 Lincoln County Commissioners
 Lincoln County Extension Agent
 Lincoln County Planner
 Montana Bureau of Mines and Geology
 Montana State Clearinghouse
 Montana State Department of State Lands
 Montana State Department of Fish, Wildlife, and Parks
 Montana State Department of Natural Resources and Conservation
 Montana State Division of Forestry
 Montana State Historical Society
 Montana State Office of the Governor
 Sanders County Commissioners
 U.S. Department of Commerce, National Oceanic-Atmosphere
 Administration, Ecology and Conservation Division
 U.S. Department of Agriculture, Rural Electrification Administration
 U.S. Department of Agriculture, Soil Conservation Service
 U.S. Department of Energy - Bonneville Power Administration
 U.S. Department of Interior, Bureau of Indian Affairs
 U.S. Department of Interior, Bureau of Land Management
 U.S. Department of Interior, Bureau of Mines
 U.S. Department of Interior, Office of Environmental Project Review
 U.S. Department of Interior, U.S. Fish and Wildlife Service

2. Review of Plans

Montana State Department of Fish, Wildlife, and Parks, Montana
 Outdoors Recreation Plan, 1982 (SCORP)

-Discusses the uses and expected demands in recreation, including fishing and hunting harvests. Formed the basis for demand estimates.

U.S. Department of the Army, Corps of Engineers, Lake Koocanusa Recreation Management Plan

-Pertaining to the management of Koocanusa Reservoir.

Designations made along the reservoir corresponded to this Plan.

USDA Forest Service, Kootenai National Forest, Visual Management

- Used to develop viewing coefficients and viewing management guides.

Montana State Department of Water Quality Bureau, "305B Report",
Montana Water Quality, 1982.

-Lists and describes watersheds experiencing hydrologic problems.

Enabled Plan to focus on potential watershed problems.

USDA Forest Service (for Montana State Department of Health and Environmental Sciences), Water Pollution Problems on the National Forests in Montana

-Source for watershed management practices and guidelines.

U.S. Fish and Wildlife Service, Grizzly Bear Recovery Plan, 1982.

-Sets population goals for grizzly bears to ensure recovery of the species; site specific to ecosystems.

Lincoln County Commissioners, Comprehensive Land Use Plan, 1980.

-Details current and projected land use patterns in the County.

Used to help formulate landownership adjustment plan.

Bonneville Power Administration, Phase 1, Part A, Long Range East-West Energy Corridor Study, 1977.

-Lists and describes corridor windows; addressed in terms of impacts on these windows in the EIS.

St. Regis Paper Company (now part of Champion Timberlands), Champion Timberlands, and Burlington Timberlands (now part of Plum Creek Timberlands) were asked to provide timber volume estimates (1981). This information was used in transportation planning.

The Confederated Kootenai-Salish Indian Tribe has been kept informed throughout the process and requested to provide information and concerns if appropriate. No information has been received nor concerns expressed.

B. Other Consultations

Timber Industry - Primary industry group is Inland Forest Resource Council representing Champion Timberlands (includes the former St. Regis Paper Company in Libby), Louisiana Pacific, F.H. Stoltze Lumber Company, Plum Creek Timber Incorporated, and Burlington Northern Timberlands (now a part of Plum Creek Timber Incorporated). Numerous formal and informal contacts were made throughout the planning process.

Mineral, Oil, and Gas Interests - Groups include American Smelting and Refining Company (ASARCO), American Mining Congress, AMOCO, Atlantic Richfield Company (ARCO), Champlin Petroleum Company, Cominco American Company, CONOCO, Meridian Land and Mineral Company, Montana Mining

Association, Rocky Mountain Oil and Gas Association, TEXACO, and NORANDA. Notification to the groups have been made through mailers and through the November 1982 EIS. Responses have been numerous and detailed throughout the process.

Local Wildlife and Recreation Interests - Groups include Libby Rod and Gun Club, Tobacco Valley Rod and Gun Club, Noxon Rod and Gun Club, Flathead Snowmobile Association, Backcountry Horsemen, and Libby Sno-Kats. Contacts have included presentations to the groups at key points in the process.

Western Environmental Trade Association (WETA) - An industry coalition group representing (among others) Inland Forest Resource Council, Montana Cattleman's Association, Montana Petroleum Association, Montana Mining Association, Montana Power Company, Montana Coal Council, and Montana Snowmobile Association. Visits with board members have occurred both at the Forest and at the WETA offices in Helena.

Northwest Energy and Economic Development (NEED) - A local group affiliated with WETA. Several formal and informal contacts were made with groups' officers.

Montana Wilderness Association - Interest group representing wilderness interests. Formal and informal contacts were made both on the Forest and at MWA offices in Helena.

National and Regional Wildlife Interests - Primarily two groups; National Wildlife Federation and Defenders of Wildlife. Close contact throughout the process were made including formal presentations to group members in Missoula.

National and Regional Environmental Groups - Includes Last Chance and National Audubon Societies, the Bitterroot-Mission Group and Northern Great Plains Region of the Sierra Club, and the Great Bear Foundation. Contacts, formal and informal, have been made with the regional chapters of these National organizations.

Libby Chamber of Commerce - Contacts were made with the Forestry Committee and Economic Development Committee throughout the process.

III. Selected Issues, Concerns, and Opportunities Resolution

This section discusses the public issues selected through the scoping process conducted during the Fall of 1979. The process used to arrive at this list of issues, concerns, and opportunities is discussed in Section I above.

Comments received by the public during the review period of the November 1982 DEIS, served, in some cases, to modify the original issues, concerns, and opportunities. No new issues arose during the comment period but some issues aroused more interest than was previously indicated during the initial public workshops. Some issues raised in 1979 did not receive as much mention by the public in their comments on the DEIS.

The following discusses the resource situation, describes the public's perception of the issues, and states the Forest's potential to respond to the issues.

1. Timber Volume - How much timber should the Kootenai National Forest provide for sustained yield purposes?

Situation - Timber harvest, processing, and related manufacturing, is the largest industry in and around the Kootenai National Forest. Over half of the economy is directly related to the timber industry. The Kootenai National Forest has traditionally provided more than half of the total volume necessary to sustain the industry located within the working circle. (Kootenai National Forest)

Timber and the effects of timber harvesting relate to almost every other issue dealing with Forest management; wildlife, recreation, water and soil, viewing, fisheries, roads, and local economic impacts.

Public View - At workshops and in public comments to the November 1982 DEIS, polarized opinions have been expressed about the amount and rate of timber harvest on the Kootenai. Some comments indicated that timber harvest goals were high and unrealistic while other comments indicated that too little emphasis was being placed on timber harvest.

The public's concerns were expressed in terms of the effect of timber harvesting on recreation (including the view), the effects of associated road construction on wildlife, and the effects of increased sedimentation on fish and water quality. Of major concern also was the need to maintain present or increased timber volumes to support the local economy.

Procedure to Resolve - Suitable timberland on the Kootenai (land that is biologically capable of producing timber and harvestable with present technology, and is otherwise not restricted but available for harvest) is 1,788,000 acres. Alternatives have varying amounts of suitable timberlands, depending on the amount of roadless or other nondevelopmental designations, which would prohibit regulated timber harvest. The suitable acres also determined (along with harvest scheduling) the amount of timber volume expected to be harvested in each alternative.

The range of alternatives considered varying amounts of timber volumes to resolve the timber issue as well as resolve potential resource conflicts. The maximum 1st decade average annual timber harvest volume achievable, while still meeting legal and environmental constraints, is 262 MMBF. The minimum 1st decade average annual timber harvest volume is 150 MMBF.

These two items (amount of suitable timberland and the level of timber harvest) will be used as indicators to define how this issue is resolved.

2. Transportation Facilities (Roads) - How should roads be designed, constructed, and managed and what are the attendant costs on other resources?

Situation - There is a major Forest-wide concern relating to the location, construction, and ultimate uses to be made of many of the roads on the Kootenai National Forest. The issue relates to the miles of road that are being built and the economic costs involved in their construction and operation.

The issue is closely related to the timber issue because roads are built for timber harvesting; road mileage projections are based on the amount of timber expected to be harvested. Roads also relate to recreation, both in terms of providing motorized recreation opportunities and, conversely, taking away roadless recreation opportunities. Wildlife is another resource affected by roads; specifically the effects on wildlife security and the effects of increased sedimentation on fisheries as a result of road building.

Public View - During the October-November 1979 public workshops, many thoughts were expressed by the public concerning road closures; both more closures (for wildlife protection, etc.) and less closures (to enable the gathering of Forest products, etc.). Concern was also expressed about the method of closure such as the use of gates versus earthen barriers. Many roads on the Forest have been designated for closure in previous land use planning efforts.

Recent comments have focused on the amount of roads proposed to be built and their effect on resources, primarily wildlife and fish. Concerns were also voiced about the high standards proposed and the lack of alternative roading methods (temporary versus permanent roads).

Procedure to Resolve - The amount of road construction is generally proportional to the amount of land allocated to timber production. Road mileage varies by alternative, based upon the amount of timber harvest projected. The alternatives propose road mileage ranging from 9,840 (Alternative I) to 12,360 (Alternative L), most of which would be in place by 2010.

As a result of the public comments received concerning the November 1982 DEIS, the road mileage issue was reexamined with the view to reduce the projected road miles in the Proposed Plan. Examined were the assumptions used to arrive at the road mileage including economic and technological. The Team assigned for this review concluded that the methods used to determine road densities could be improved and that more cost effective road systems could be used. However, in terms of actual miles on the ground, there did not appear to be a realistic method to significantly reduce miles of road without significantly reducing the acres allocated for timber harvest.

Currently, about 1% of the annual timber harvest is done by advanced logging systems such as longspan skyline and helicopter. The use of these systems is not expected to increase at a rate that would significantly reduce the

road mileage, largely because the topography and the value of timber on the Forest make the systems uneconomical.

Among the Team's recommendations was that a strong emphasis be placed on road management, i.e. road closures. The adverse effects of roads and road densities can be offset by strict closures once the road is no longer needed. The methods and policies regarding road closures for each management area would be the same for all alternatives.

These two items (the amount of new road construction needed and the level of road restrictions required) will be used as indicators to define how this issue is resolved.

3. Roadless Recreation - How many roadless recreation opportunities should the Kootenai National Forest provide and where should they be located?

Situation - Prior to development of the Forest Plan, about 11% of the Forest (250,000 acres) was devoted to primitive or roadless recreation, much of it along ridgetops above the major commercial timber areas. During the planning effort, opportunities were identified to expand several of the existing primitive recreation areas in order to create some more complete and cohesive recreation areas.

Unroaded management can conflict with timber (where roadless areas contain suitable timberlands), wildlife habitat management, and mineral, oil and gas exploration.

Public View - Unroaded management has been a major local concern with polarized opinions often expressed. The issue is related to wilderness, recreation, and to the impacts of timber harvesting and road building. Recreation is a concern of local businesses who desire a variety of recreation opportunities to attract tourists. Some publics have an expressed preference for roadless forms of recreation and are concerned that demands will eventually exceed the supply. Others are concerned that roadless management will impede the timber harvest and that reduced volumes will result.

Procedure to Resolve - Alternatives propose varying amounts of roadless designations, ranging from 364,000 (Alternative O) acres to 54,000 (Alternative H) acres. (Note that Alternative H is the maximum wilderness alternative and that all inventoried roadless areas are recommended for wilderness in that alternative).

Demand projections indicate that with less than 341,000 acres, the quality of the roadless recreation experience would decline as the demand begins to exceed comfortable capacity. At that point, wilderness areas would begin to feel the pressure as use diverts to those areas. Comments received during the review period of the November, 1982 DEIS indicated a strong public concern for this inadequacy. Only Alternative O, with its combined designated roadless acres from the roadless inventory plus other roadless designations in areas that did not meet the criteria for the inventory, is expected to provide the sufficient supply of roadless acres to meet expected demand. This is because most alternatives designate portions of the

roadless inventory to wilderness which is not counted in the roadless recreation use total.

The indicator to be used to define how the issue is resolved will be the total acres of roadless resource available which includes existing wilderness, proposed wilderness, wilderness study areas, and designated roadless recreation areas.

4. Threatened and Endangered Species - How can the Kootenai National Forest provide and maintain identified habitat for the threatened and endangered species, especially grizzly bear?

Situation - At present, the Kootenai has identified essential habitat for three endangered and one threatened species. They are the gray wolf, bald eagle, peregrine falcon, and the grizzly bear respectively. Grizzlies are yearlong residents, eagles are predominantly winter residents, and wolves are primarily transients from Canada. Peregrine falcons are migrants; there are no known nesting or eyrie sites on the Forest. All four species are sensitive to Forest management practices and their habitat can be benefited or damaged by Forest management activities.

Protection and recovery of threatened and endangered species are mandated by the Endangered Species Act and the regulations of the U.S. Fish and Wildlife Service, the agency responsible for evaluating the effects of management on grizzly habitat.

Public View - The public issue has centered around the grizzly bear. When the public issues were first identified, the primary concern was for the effect of Forest management on grizzly habitat. Many recent concerns have been expressed for the effects of grizzly management on other Forest uses and on the local economy. The issue has intensified as grizzly management practices are becoming more refined and their effects realized. The issue has become polarized between those who view grizzly management and compensation as detrimental to Forest management and the local economy, and those who feel that the grizzly bear should be protected in accordance with the Endangered Species Act.

Procedure to Resolve - In accordance with agreements reached with the U.S. Fish and Wildlife Service, following the jeopardy opinion rendered on the November 1982 Draft Forest Plan, all grizzly habitat management situations 1 and 2 (Yellowstone Guidelines) have been allocated to supportive or compatible designations. This involves 1,036,000 acres deemed necessary to meet the requirements of the Endangered Species Act. Consequently, all alternatives are projected to meet the recovery goals for the grizzly bear. All other threatened and endangered species are protected in all alternatives.

The indicator to be used to define how well this issue is resolved is the amount of grizzly habitat that is not developed.

5. Special Wildlife Habitat - How should special wildlife habitats, such as riparian areas, old growth timber areas, and snags be managed and where should they be located?

Situation - Approximately 64 species of wildlife find optimum breeding conditions in old growth timber habitat on the Kootenai. Of these, 6 are considered dependent on old growth timber for their existence. In addition to dependent species, old growth timber provides habitat of seasonal importance to big game, migratory wildlife, and those species needing tall, stout, nesting platforms such as osprey and eagles. Old growth timber habitat reaches optimum wildlife conditions when in conjunction with riparian areas. Wildlife biologists have determined that about 8% of the Forest, or 177,000 acres, is the minimum amount of old growth habitat needed to maintain dependent wildlife species when distributed throughout the Forest.

While riparian habitat is a small portion of overall, available habitats, it is disproportionately important to fish and wildlife. Riparian areas, (the boundary between water and land), are rich in diversity and support the highest densities and abundance of wildlife species. Land management activities can jeopardize many resource values which are inherent on the same site and the public has stated their concern for the protection of these values.

Public View - Concerns for special wildlife habitats arose at the public issues workshops in 1979 and were reiterated in public comments to the November, 1982 EIS. Most comments express concern for the degradation of special habitats because of management activities and stress the need for more protection.

This is countered by concerns expressed for the effect of managing for old growth, especially the effect of extended harvest rotations on the flow of timber.

Procedure to Resolve - The alternatives were constructed to meet at least the minimum acreage and spacial requirements for old growth dependent species. Thus, all alternatives can be said to resolve the old growth issue. *The indicator to be used to define this issue is the amount of old-growth timber that will be provided in 100 years.*

The riparian area management guidelines in the Forest Plan have been rewritten to provide stronger guidance and protection to riparian areas.

6. Local Economic Impacts - How will changes in the Kootenai National Forest Plan affect the local communities' economies?

Situation - The local economies are highly dependent on the level and composition of Forest outputs. In Lincoln County, for example, the wood products sector (primarily logging and sawmills) directly represents over 50 percent of the economy's total output and personal income receipts, and over one-third of the County's employment.

Public View - This issue, probably more than any other, has sparked the most public comments. The issue is expressed in many ways ("Set aside more small timber sales to help the small local businessman") and is often related to other resource issues ("Provide more recreation opportunities in order to attract tourism to aid the local economy"). The issue has also arisen in connection with grizzly management and the proposal for an alpine ski area at Great Northern. The public's perception of the issue stresses the diversity of Forest uses and their effect on the local economy, not just the timber resource.

Procedure to Resolve - The intensity of the public's response and the variety of their concerns regarding the effects of Forest management on the local economy, reaffirms the necessity to insure that radical changes to the local economy do not result from activities on the Forest.

The alternatives present varying amounts of changes in employment and income, and return receipts to the Treasury (25% of which is returned to the State). No alternatives are considered to contribute to a radical change (plus or minus) in the local economy.

The indicator to be used to define how the issue is resolved is the number of forest-related jobs generated in the private sector.

7. Wilderness - Which, if any, of the identified roadless areas on the Kootenai should be recommended to Congress for wilderness designation?

Situation - Recent NFMA regulation changes have necessitated a re-evaluation of the roadless areas on National Forest lands for possible wilderness designation. As a result, the Kootenai has identified 32 roadless areas meeting the evaluation criteria for wilderness study, involving 403,700 acres. There are 11 areas that border adjacent Forests which also contain a portion of the roadless area.

Prior to the revision of the NFMA regulations, regulations did not provide for wilderness study; in fact, the regulations expressly stated that wilderness would be evaluated only in the 10-year revision. Therefore, initially, wilderness was not considered a public issue, except in the case of the Ten Lakes Montana Wilderness Study Act (MWSA) area, a special study area of approximately 34,000 acres.

The Ten Lakes MWSA area was evaluated for wilderness under the provisions of Public Law 95-150 in the November 1982 DEIS. That evaluation, along with a proposed recommendation, was contained in a separate Report and Proposal. The recommendation for Ten Lakes was nonwilderness with most of the area allocated to semiprimitive nonmotorized recreation.

Public View - Despite the fact that wilderness was not an issue for consideration, wilderness did arise in the public issues workshops and in the public comments to the November, 1982 EIS.

Opinion is sharply divided on the issue of wilderness. Comments to the November, 1982 Ten Lakes MWSA Report and Proposal reveal the split between

those desiring Wilderness designation and those preferring less restrictions on use in the area.

Procedure to Resolve - The final recommendation for the Ten Lakes MWSA is for a 26,000 acre wilderness classification with the remainder designated for nonmotorized recreation or for developmental activities favoring wildlife. Some additional acreage outside the MWSA area is also being recommended for wilderness. Details of the recommendation are contained in the Final Ten Lakes Report and Proposal.

This EIS presents 15 alternatives with varying amounts of wilderness. The purpose is to display the effects of wilderness management on Forest management and the effects of Forest management on wilderness suitability. The alternatives range in wilderness acres from 94,000 (current situation) to 403,700, the maximum amount available on the Forest (excluding the Ten Lakes MWSA area).

The indicators to be used to define the wilderness issue are the amount of area recommended for wilderness and the amount of potential wilderness left undeveloped.

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?

Situation - Prospecting and exploration for new mineral deposits have increased on the Kootenai. New geologic concepts, a dependence on foreign imports and changed economic conditions have spurred the search for large, low grade deposits. The Forest Service manages the lands beneath which these deposits are, or may be, found and to a large extent controls their availability and access. Concurrently, the right of the minerals industry to go upon these lands to prospect for and develop mineral deposits must be recognized in the land management process.

There are areas with high mineral potential which coincide with areas of other high resource use, such as timber, water, recreation, wildlife, and visual. The Forest Service has a responsibility to weigh these values, identify adverse effects of one resource on the other, and provide for their mitigation.

Gas and oil companies are presently interested in the area known as the "overthrust belt," a gas and oil-bearing rock formation that extends from Utah, north into Canada. The Eureka-Fortine area, located in the northeast corner of the Forest, is located in the western edge of this "overthrust belt." Gas and oil lease applications covering virtually the entire Forest have been received. The Ten Lakes MWSA is located within the "overthrust belt" and should favorable results be obtained in the adjacent areas, Ten Lakes could receive industry interest.

Public View - Outside of direct responses from industry, there has been little recently expressed general public concern about minerals, and oil/gas in the context of the Forest Plan. Mineral, oil and gas activities do,

however, receive much attention as they occur and are considered an ongoing management concern.

Response from industry indicated concern for the amount of land that could be made inaccessible for mineral, gas/oil exploration and development because of use restrictions such as wilderness or roadless recreation. Responses from the public show concern for the effects of mineral, oil, and gas activities on other resources.

Procedure to Resolve - Generally, roadless management has low compatibility with future mineral exploration activities, especially when roads are needed to facilitate the operating plans. Identified grizzly habitat also provides potential conflict that has to be resolved by compensation measures. These measures can include scheduling of activities during periods of nonuse, providing buffer zones for security, prohibiting roads or, if roads are needed, limiting use of the road.

It is the policy of the Kootenai to facilitate the exploration for oil and gas in a manner consistent with the intent of each management area as long as the other resource values of the land are not permanently or irreparably compromised. As alternatives were developed, acres of high mineral/oil and gas potential were identified that occurred in areas where prohibitions on access for mineral/oil and gas exploration could be expected, such as wilderness and recommended wilderness areas. These acres of restricted access in areas of high potential range from 185,000 to 579,000 for minerals and from 148,000 to 540,000 for oil and gas, depending on the alternative.

The indicator to be used to define how this issue is resolved is the amount of area that will be projected for eventual withdrawal from mineral and oil/gas exploration.

9. Wildlife and Fish - 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?

Situation - The Kootenai supports huntable populations of elk, moose, bighorn sheep, mountain goats, whitetail and mule deer, black bear, and mountain lion. The Clark Fork elk herd on the Cabinet Ranger District is a herd of Statewide prominence.

Prior to development of the Forest Plan and during the public issue identification phase of the planning process, much concern was expressed over the ability of the Kootenai to provide habitat to support big game in sufficient numbers. The public's concern was for maintenance of hunting populations.

The analysis accompanying the development of the Plan revealed that the Kootenai has the potential to provide elk in excess of amounts deemed minimum for viable populations. This proved true for all alternatives, including highly developmental management scenarios.

The rivers, streams and lakes support a significant and popular fisheries resource. Species include populations of rainbow, westslope cutthroat, bull

and brook trout and mountain whitefish. A sturgeon and ling fishery also exists.

The productivity of most of the streams and lakes is low compared to waters found in the remainder of the Northern Region.

The analysis done during the development of the plan revealed that the existing fish population in the streams is on a declining trend as a result of the timber harvest and road building done to date. No alternatives were able to reverse this decline except the Minimum Level Benchmark.

Public View - Concerns have been, and are, expressed about the effects of management on all wildlife, both big game and nongame species and fisheries. Maintenance of the area's wildlife and fisheries is of major importance to the local publics.

Procedure to Resolve - Recent public comments have indicated little concern for the potential of the Kootenai to provide elk; concern has been expressed, however, for wildlife management techniques that appear inadequate to assure protection for all wildlife.

All alternatives provide habitat sufficient enough to accommodate an estimated elk population of 7,200 to 9,900 elk. This increases the current population of approximately 5500 elk.

Concern has been expressed about the potential effects on the fishery resource. All alternatives project a continued decline in the existing fish population ranging from 4% to 7%.

The indicators used to define the resolution of this issue are the projected elk and fish populations.

10. Esthetics (Viewing Resource) - How much change from the natural appearing landscape is acceptable or desirable?

Situation - Timber harvesting and road building and their effects on the landscape, is a recurring issue. In an attempt to evaluate the visual impacts of Forest management and, in turn, help direct how much visual disruption is acceptable from a viewing standpoint, "Visual Quality Objectives" (VQOs) are used. VQOs measure visual quality and are standards that indicate how much sensitivity to the view should be applied while conducting Forest management activities.

The VQOs considered most sensitive in terms of retaining the view are "retention" and "partial retention." The inventoried acres for these two VQO's are 434,000 acres of "retention" and 904,000 acres of "partial retention." These acres generally occur within view of major highways and other travel corridors or from towns. The acres form a base against which alternative designations of "retention" and "partial retention" can be compared.

Public View - The viewing issue arose during the initial public workshops when issues were identified. Few recent comments have been received which

directly expressed concern for the view. Some concern for the size of clearcuts has been expressed which is often associated with the viewing issue.

The viewing issue remains as a management concern to be addressed and resolved by the Forest Plan.

Procedure to Resolve - Generally, attempts to produce a more aesthetically pleasing view produce less timber volumes than could otherwise be generated. With careful sale planning and application of visual management principles, this reduction can be minimized while still attaining an acceptable view. Various alternatives were analyzed with differing amounts of "retention" and "partial retention" acres. This results in varying degrees of protection of the view, depending on the thrust of the alternative. No alternative allows the view to reach unacceptable viewing standards, especially along major roads and highways or within the vicinity of towns.

The indicator used to define the aesthetics issue is the amount of land designated to provide a high degree of protection for the Visual Resource.

11. Landownership Adjustment - How can intermingled ownership patterns be improved to facilitate Forest Service and private land management objectives? (Includes both large and small landowners.)

Situation -The landownership pattern on the Kootenai National Forest varies with location. The pattern can be characterized as (1) large blocks of uninterrupted, contiguous National Forest lands, (2) checkerboard situations with alternate sections of private and public lands, (3) isolated tracts of private lands surrounded by National Forest lands, (4) isolated tracts of National Forest lands surrounded by private lands, and (5) large blocks of lands owned by major corporate landowners.

The large blocks of major corporate lands and checkerboard situations are generally located in the southeastern quarter of the Forest. The largest concentration of noncorporate private lands is in the Eureka - Fortine area, the northeastern part of the Forest.

The other concentrations of private lands occur in the areas of Libby, Troy, Yaak River, Bull Lake valley, and the Clark Fork River valley.

Isolated tracts of private lands surrounded by National Forest lands occur in various locations on the Forest. While there are other instances of National Forest lands surrounded by private lands, the majority of these situations are in the Eureka-Fortine area.

Public View - Landownership adjustment and adjacent land management objectives are "specialized" issues of most importance to adjacent landowners and the Forest Service; the issue did not surface as a significant issue during the initial public workshops or during the comment period for the November 1982 DEIS. Because of the importance as a management concern, the issue is addressed and resolved in the Forest Plan.

Procedure to Resolve - The Kootenai has identified about 88,000 acres, valued at \$86 million, that would be desirable to acquire and 70,000 acres valued at \$87 million desirable to dispose of. All alternatives propose the same amount of land desirable to acquire or dispose of because of the emphasis to enhance recovery of the grizzly and to provide roadless recreation opportunities.

The Kootenai National Forest and Plum Creek Timberlands Incorporated are currently conducting negotiations for a large potential land exchange in the Silver Butte-Vermilion portion of the Forest, immediately southeast of the Cabinet Mountains Wilderness. The purpose of the exchange is to aid in grizzly bear management by adding more habitat to the Forest, provide more opportunities for primitive recreation, and correct the checkerboard ownership pattern in the area.

12. Disease 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?

Situation -The major pest on the Kootenai is the mountain pine beetle. About 119,000 acres of infestation existed in 1982 and the infestation has been increasing in size each year. This is approximately 21% of all the lodgepole on the Forest and, coupled with the large amount of high risk lodgepole pine timber (2,070 MMBF), represents a significant potential for timber volume loss.

The assumption is that all of this timber will be affected by the mountain pine beetle in the 1st decade. Approximately one half of this volume will not be salvageable even under the most optimum conditions. This is an average of approximately 109 MMBF/year.

Public View - The timber industry is most interested in the resolution of this issue both because of the economic undesirability of lodgepole pine timber and the potential timber harvest reductions because of the loss of growing stock. The general public, as a rule, did not respond intensely to the insect and disease situation. Because of the ongoing concern for the effects of insect and disease activity, the issue is a management concern to be addressed and resolved in the Forest Plan.

Procedure to Resolve - The amount of lodgepole pine harvested ranges from 51 MMBF to 93 MMBF annually in the 1st decade'

The indicator used to define the issue is the level of lodgepole pine timber harvested.

13. Fire Management - What role should fire management play in the protection and improvement of resources on the Kootenai National Forest, including management fires?

Situation -The Kootenai National Forest protects almost 2,000,000 acres of Federal, State, and private land from fire, and experiences an average of 65 lightning-caused fires and 53 person-caused fires per year. These "unplanned" lightning-caused and person-caused fires cause an average of 4,100 acres of burned-over area per year.

The majority of the person-caused fires occur in high-volume timber areas that are usually in the stream drainage bottoms or along main travel routes. In addition to "unplanned" fires, the Kootenai National Forest uses "planned" fires to reduce the amount of heavy fuels (slash) that occur as a result of timber harvesting.

In 1979 changes in fire management policy allowed for the prescribed use of "unplanned" fires if they met specific criteria. These "unplanned" fires that fell into this category were called "management fires" and during the 1979 fire season, three of these management fires were allowed to burn under a specific set of prescriptions. The largest of these fires, Smith Mountain, reached 542 acres in size before being extinguished by the fall rains.

Public View - The public issue identification workshops were conducted just following the Smith Mountain management fire when opinions were the most polarized over the use of management fires. Because the issue arose at the workshops with intensity, it was carried forward as a public issue.

Few recent comments have been received concerning fire management. It is assumed that fire management no longer arouses the same intense public reaction that it did 5 years ago. However, because of the ongoing concern over the use of fire in Forest management, fire management is carried forward as a management concern and addressed and resolved in the Forest Plan.

Procedure to Resolve - Recent changes in fire management deal primarily with the use of planned and unplanned ignitions and their use as management tools. A broader application of planned ignitions is being used to accomplish goals and unplanned ignitions are being confined to specific designations, subject to fire management plans. All wildfires are to be suppressed.

Designations in which unplanned ignitions may be used include Wilderness, Proposed Wilderness, primitive recreation, semi-primitive nonmotorized recreation, and most other nondevelopmental designations. Management fires in other designations are confined to planned ignitions.

FINAL
ENVIRONMENTAL IMPACT STATEMENT
FOR THE
KOOTENAI NATIONAL FOREST PLAN

APPENDIX D

GRIZZLY BEAR SITUATION AND
MANAGEMENT GUIDELINES

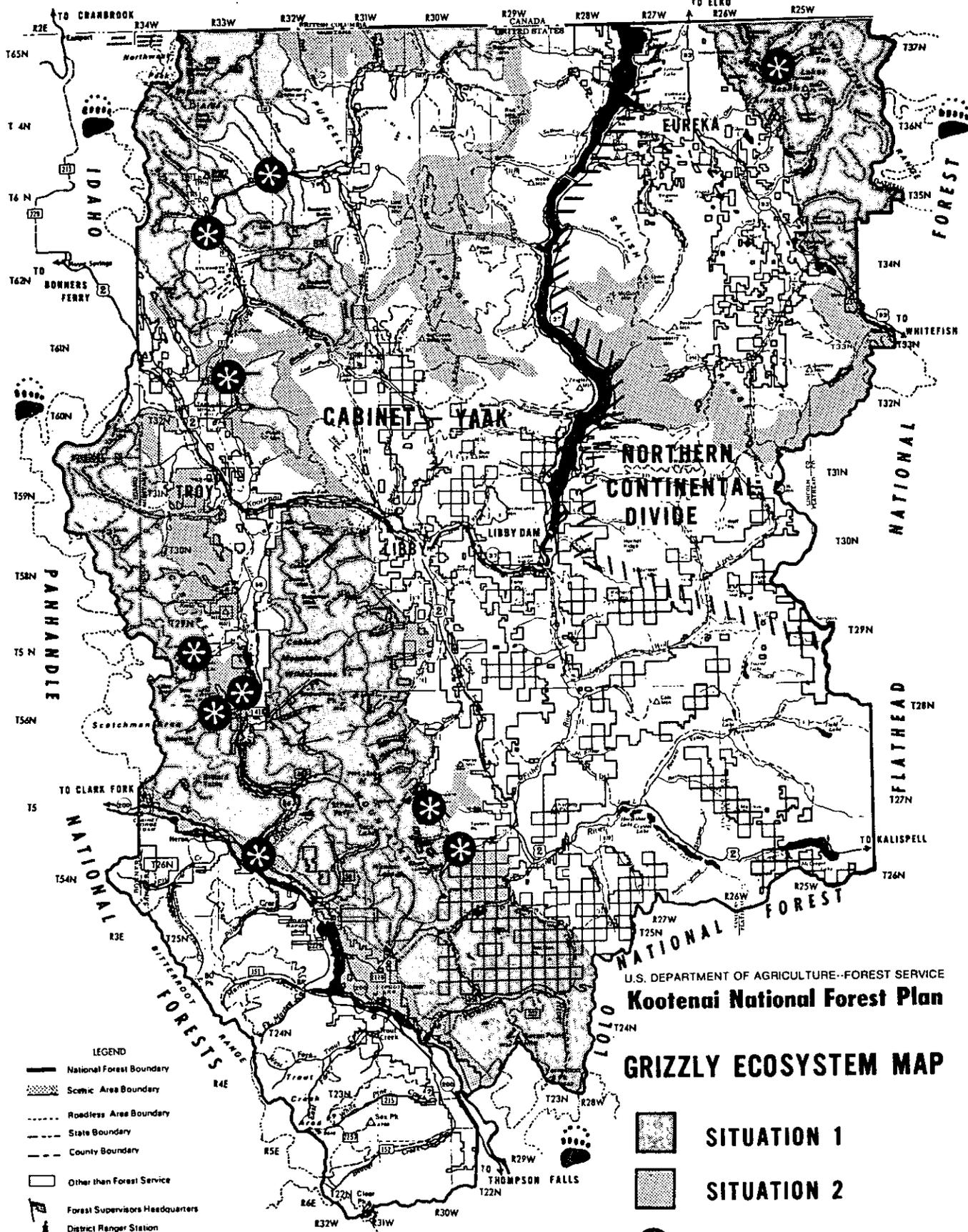
KOOTENAI NATIONAL FOREST

This appendix discusses the grizzly bear situation on the Kootenai, the management guidelines that will be implemented in the Forest Plan, and the issue of grizzly bear augmentation (the transplanting of bears from one location to another to increase the probability of reproductive success with the goal of assisting in population recovery).

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*** Denotes No Changes occurred between the Draft and Final EIS

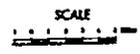


U.S. DEPARTMENT OF AGRICULTURE--FOREST SERVICE
Kootenai National Forest Plan

GRIZZLY ECOSYSTEM 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

- SITUATION 1
- SITUATION 2
- SITUATION 3
- HABITAT EXTENDS INTO ADJACENT FORESTS



APPENDIX D

GRIZZLY BEAR SITUATION AND MANAGEMENT GUIDELINES

Summary of Changes between the Draft and Final EIS

Overview: The Proposed Action and the Final Forest Plan have both received a non-jeopardy opinion from the U.S. Fish and Wildlife Service (See Letter #1 in Appendix E - Letters received from the Public and Forest Service Responses). They have concluded that the grizzly bear's recovery will not be adversely affected if the Forest Plan prescriptions are carried out as presented in the Final Forest Plan document which includes grizzly management guidelines (Appendix 8). They have also made suggestions for improvement in land designations to lessen the risk of causing additional human/bear confrontations which were incorporated into the Final Forest Plan (See the Final Forest Plan Map in the Forest Plan document).

Specific Changes:

1. A change has been made in the name of the reference document for stratification of habitat and for the definitions of management situations. The "Yellowstone Guidelines" are now referred to as the "Interagency Guidelines" in all cases.
2. Some clarification in the definition of Management Situation 2 has been incorporated into the Management Guidelines to insure that activities in Situation 2 do not diminish the quality of adjacent Situation 1 areas. See section III, B, "Definitions".
3. Several Guidelines have been strengthened to Standards to insure a more consistent application of the Management Guidelines on-the-ground. More specifically, item 3a, under Timber/Fire Management on page D-22 in the Draft EIS; and item 3a, 3c, 3d and 3e, under Minerals, Special Uses and Watershed Management on page D-26 of the Draft EIS.
4. Two additional references have been added in section III, E, "Applicable Documents". They are entitled "Interagency Grizzly Bear Guidelines", and "Charting the Course - The Forest Service Grizzly Bear Conservation Program".

The entire Grizzly Management Guidelines (section III) as presented in this appendix including the discussion on Augmentation are a part of the Final Forest Plan document (Appendix 8).

APPENDIX D

I. General Description, Background, and Current Situation

It has been estimated that at one time grizzly bears numbered about 100,000 and that their range extended west from the Missouri River and from Canada south to Mexico. In 1975, the grizzly bear was listed as a threatened species, reduced in number to less than 1,000 and found only in the last vestiges of high mountain wilderness and National Parks. Since the Endangered Species Act (ESA) was so new and the funding and mechanisms not immediately in place to implement the law, it was not until 1977 that specific habitat for grizzly bears was delineated. At that time, Forests in Region 1, including the Kootenai, delineated "essential" habitat, an in-house term applied to areas needing special management consideration for grizzly bears.

Historically, grizzly bears have been residents of the Kootenai, and until 1974 could be hunted in the Cabinet Mountains and the Yaak area. The bear remained under the sole management of the State until 1975 when it was listed as a threatened species. Since then, the State and Federal agencies have become partners in grizzly bear management, with the State concerned with bear numbers (determining hunting seasons and bag limits in areas where the bear is still hunted) and the Forest Service with bear habitat.

During the late 1970's, the Forest Service gave emphasis to the mapping of essential habitat and the development of land management practices which combined grizzly habitat protection with the accomplishment of other multiple use objectives. Also during this time the Fish and Wildlife Service (FWS) began to fulfill other requirements of the Act, in particular Section 7 which gives direction for the consultation process between the FWS and other Federal agencies.

Relatively little was known about grizzly behavior, habitat needs, and responses to man-related activities until the advent of radio collars which could be attached to individual animals. As information from radio-collared bears became more abundant, it was used to direct management activities and the consultation process. During the late 1970's, as recognition of the status of the grizzly bear became widely appreciated and as new information about habitat became known, the subject of grizzly recovery came into focus.

The major causes for decline in grizzly numbers have been man-caused mortality and destruction of habitat. To increase numbers (the goal of the ESA), these two causes must be addressed in land management practices. Man-caused mortality can be handled in several ways: (1) remove bears from the area so contact is never made; (2) reduce man's presence in an area to cut down on the number of contacts, and (3) modify activities to minimize contact. Historically, grizzly bears have been forced to move as people settled and developed the vast majority of grizzly habitat. Only in designated wilderness areas or areas with similar attributes or in National Parks has a conscious effort been made to reduce man's presence for the benefit of grizzly bears. Outside of wild areas and parks, if bears are to survive, man's activities must be modified to retain sufficient grizzly bear habitat and provide seclusion. This third option is the hardest to accomplish and the most controversial.

Grizzly bears are only active about six months out of the year, remaining in their dens from late October or early November until April or May of the following spring. During the active time of the year grizzlies must eat enough food to build sufficient fat reserves for the coming winter. Consequently, they spend over 90 percent of their time feeding or seeking food. Through the identification of grizzly foods and their delineation in the field, a map can be produced which identifies where grizzly bears must go during the active time of the year to feed. It is in these areas and the connecting land between that man's activities must be carefully coordinated to protect grizzly food sources and to allow sufficient solitude for bears to take advantage of those sources.

Most grizzly foods are not found in heavy forest, but rather in open areas where berry bushes and shrubs are growing. In that sense, little direct conflict exists between managing for grizzly bear food and managing for trees. The problems that develop are generally associated with the construction of new access roads, during which cover is removed and noise from heavy equipment causes bears to leave the area. After road construction, man's continued presence in the area will inhibit reoccupation of the area by the grizzly. Research shows that grizzly bears are generally found within large tracts of wildland, but can live in relatively close proximity to man if the proper conditions exist. One main factor necessary to accomplish this, is that the number of access roads planned for areas known to have essential grizzly bear habitat must be limited, and those constructed must be controlled through seasonal or year-long closures. Road construction and timber harvest activities must be limited by season or length, thereby protecting food sources and perpetuating established bear habitat. The net result is accomplishment of both goals, i.e., protecting grizzly bear habitat and managing for timber, but in a modified and, admittedly, more complicated way.

Unless efforts of this kind are made, bears will have a difficult time surviving. If bears are not allowed to feed and build fat reserves, or if food sources are damaged or destroyed, bears will go into their dens in very poor condition and may not survive the winter. If they are female, they may not produce young even though they may have been pregnant upon entering the den.

Denning is the other critical component of grizzly habitat. For a period of about six months, grizzlies remain in one special place to avoid winter's inclement weather and the lack of food. They also give birth during this period. Disturbance during the denning period could result in death as food is not easily available during winter and snow cover would make excavation of another den difficult. Therefore, den sites and denning habitat must be protected from disturbance during the winter period. This is generally no problem as grizzlies tend to den at high elevations in deep snow zones and in areas of little human activity.

Special guidelines which consider grizzly bear needs are now being used as land managers define multiple use objectives. Those guidelines identify many important ways to reduce man's impact in essential grizzly bear habitat, including when and how land management activities will take place. For example, several special timber sale contract clauses and a special prescription were written which direct land managers in how to accomplish timber harvest in grizzly habitat without major conflicts. In addition to responding to special management guidelines, the Kootenai National Forest has developed a procedure that assesses the cumulative effect of many different activities on grizzly bear habitat, allowing managers to view the "big picture" when making land management decisions.

The goal of listing any species is recovery. Implementation of specific grizzly guidelines will lead to better management of grizzly and the chance for grizzlies to increase in number and "recover". Other techniques may help toward recovery. Techniques such as augmentation which assist in recovery are consistent with the spirit and intent of the ESA. As proven in other areas, the "delisting" of a species also reduces constraints on other activities and can even result in the controlled harvest of some species.

II. Ecosystem Descriptions

Two major grizzly ecosystems are found on the Kootenai Forest: The Cabinet-Yaak (CYE) and the Northern Continental Divide (NCDE).

A. Northern Continental Divide Grizzly Bear Ecosystem (NCDE)

The Kootenai is a small shareholder in the NCDE, contributing roughly 3 percent to the total acreage of about 5,700,000 acres. Grizzly bears in this ecosystem are felt to be more stable in number than in any other ecosystem and a limited amount of hunting is allowed. In the last five years two grizzlies have been shot on lands in this ecosystem managed by the Kootenai.

In addition to the Kootenai, the NCDE includes Glacier National Park, parts of the Blackfeet and Flathead Indian Reservations, parts of 4 additional National Forests (Helena, Flathead, Lewis & Clark, and Lolo), Bureau of Land Management parcels, and a significant amount of state and private lands. Four wilderness areas (Bob Marshall, Mission Mountains, Great Bear, and Scapegoat) and two wilderness study areas (Deep Creek Reservoir North and Ten Lakes Montana Wilderness Study Act Area) are included. Population estimates for this ecosystem vary from 440-680 bears. The area is contiguous to Canadian grizzly bear populations and an interchange of bears is assumed.

One very important aspect of this ecosystem is that it embraces the only part of the Great Plains where grizzly bears can still be found. Descendants of the plains grizzly bears have been reduced to this last narrow strip of plains habitat bordering the eastern slopes of the Rocky Mountains, commonly called the Rocky Mountain Front.

B. Cabinet-Yaak Ecosystem (CYE)

Unlike the NCDE, the Kootenai is the major landowner in the CYE, contributing roughly 70 percent to the 1.2 million acre landbase (the rest contributed by the Lolo and Idaho Panhandle National Forests). Bears have not been hunted in this area since 1974, and the population is the lowest of the three primary ecosystems identified in the grizzly bear recovery plan.

Management of grizzly habitat in the CYE has been controversial in recent years. The grizzly bear recovery plan calls for a population of 70 grizzly bears within the CYE, and roughly 45 bears within the Kootenai portion. No accurate figure exists for the current population, but experience gained in component mapping during the last four years and through the grizzly study the past two years suggests the habitat is capable of supporting a recovered population (see Interagency Guidelines in Part B of this Appendix.)

Grizzly bear numbers in the Cabinet-Yaak are very low, but researchers with the Montana Department of Fish, Wildlife, and Parks have been able to trap 3 in the Cabinet Mountains and 2 in the Yaak drainage during the course of their study. In addition, several verified and unverified observations are reported each year.

With such a low population, maintenance of links or movement corridors between core grizzly areas is important. These corridors prevent the development of isolated islands which ultimately would prove to be unsuitable for long-term maintenance of grizzly bears.

Known mortality of native bears within the CYE in the last decade consists of two bears since 1974. However, because grizzly bears have an extremely low reproductive rate, recovery will take many more years unless bear numbers are supplemented. Supplementing the native population, known as "augmentation", can theoretically speed recovery by many years and offers the benefit of introducing new genetic material. (See section on augmentation at the end of this appendix).

C. Relationship of the Kootenai National Forest Habitat to the Total Grizzly Bear Ecosystems

1. Northern Continental Divide Ecosystem

The Kootenai National Forest contains only a small portion of NCDGBE ecosystem (3%). The following table describes the relationship of the Kootenai to the total ecosystem. All land ownerships are included.

AREA SUMMARY of the NORTHERN CONTINENTAL DIVIDE GRIZZLY BEAR ECOSYSTEM

CURRENT OCCUPIED HABITAT ACRES (thousands)

| UNIT | MGMT. SIT. 1 | MGMT. SIT. 2 | MGMT. SIT. 3 | TOTAL |
|------------------------|-----------------|-----------------|-----------------|--------|
| Glacier National Park | 1007 | - | 7 | 1014 |
| Indian Reservations | 116* | 107* | 0 | 392 |
| Private and State Land | NA | NA | NA | 642 |
| Bureau Of Land Mgmt. | NA | NA | NA | 24 |
| National Forest | 2883 | 592 | 14 | 3489 |
| Flathead | (1694) | (355) | (7) | (2056) |
| Helena | (96) | (84) | (0) | (180) |
| Lewis & Clark | (764) | (5) | (7) | (776) |
| Lolo | (213) | (58) | (0) | (271) |
| Kootenai | (116) | (90) | (.4) | (207) |
| Totals | | | | 5780 |

*Flathead Reservation Only

SUMMARY of the CAPACITY (Expressed in Number of Bears)
for the
NORTHERN CONTINENTAL DIVIDE GRIZZLY BEAR ECOSYSTEM*

| | |
|----------------------|-------|
| National Park | 100 |
| Indian Reservation** | 35 |
| Private** | 84 |
| National Forest*** | 341 |
| Flathead | (207) |
| Helena | (18) |
| Lewis & Clark | (81) |
| Lolo | (22) |
| Kootenai | (13) |
| Totals | 560 |

- The capacity estimate is based upon three sets of numbers:
 1. The recovery goal stated in the Recovery Plan.
 2. An extrapolation of current bear densities from research.
 3. Applied to each ownership according to percent control of the total ecosystem.

- ** The capacity estimate for State, private and other Federal ownership is only an assessment of resource potential based on their percent ownership of the grizzly bear ecosystem. It does not constitute a management decision of how these lands should be managed.

- *** The Recovery Goal pertains to the National Forest share of the goal stated in the Grizzly Bear Recovery Plan. The disaggregation to Forests is an estimate of each Forest's share of the goal as stated in the Regional Guide. This goal may be adjusted slightly between Forests as more site-specific information and tradeoff analysis is done in the Forest planning process.

2. Cabinet-Yaak Ecosystem

The Kootenai contains about 70% of the CYE (828,000 acres). The following table shows the relationship of the Kootenai to the CYE ecosystem. All lands are included.

AREA SUMMARY of the CABINET-YAAK GRIZZLY BEAR ECOSYSTEM

CURRENT OCCUPIED HABITAT ACRES (thousands)

| UNIT | MGMT SIT. 1 | MGMT SIT. 2 | MGMT SIT. 3 | TOTAL |
|----------------------|----------------|----------------|----------------|-------|
| National Forest | | | | 1132 |
| Kootenai | 628 | 200 | 0.8 | (828) |
| Idaho Panhandle | 280 | 0 | 0 | (280) |
| Lolo | 63 | 32 | 12 | (107) |
| Private & State Land | NA | NA | NA | 108 |
| Bureau of Land Mgmt. | NA | NA | NA | 2 |
| Totals | | | | 1220 |

SUMMARY of the CAPACITY (Expressed in Number of Bears) for the CABINET-YAAK GRIZZLY BEAR ECOSYSTEM*

| | |
|--------------------|------|
| Private** | 7 |
| National Forest*** | 63 |
| Kootenai | (45) |
| Idaho Panhandle | (12) |
| Lolo | (6) |
| Totals | 70 |

* The capacity estimate is based upon three sets of numbers:

1. The recovery goal stated in the Recovery Plan.
2. An extrapolation of current bear densities from research.
3. Applied to each ownership according to percent control of the total ecosystem.

** The capacity estimate for State, private and other Federal ownership is only an assessment of resource potential based on their percent ownership of the grizzly bear ecosystem. It does not constitute a management decision of how these lands should be managed.

*** The Recovery Goal pertains to the National Forest share of the goal stated in the Grizzly Bear Recovery Plan. The disaggregation to Forests is an estimate of each Forest's share of the goal as stated in the Regional Guide. This goal may be adjusted slightly between Forests as more site-specific information and tradeoff analysis is done in the Forest planning process.

D. Limiting Factors and Management Opportunities

Excessive human-caused mortality of grizzly bears and reduction in suitability and/or availability of grizzly habitat are the major factors which can limit grizzly bear recovery.

Land and resource management can influence these primary factors in several ways. Activities such as timber management and grazing can change the composition, distribution, and abundance of plant communities. Such changes affect the quantity and quality of food and cover for grizzlies. Human activity associated with uses such as timber management, recreation, mineral exploration and development can alter availability of habitat (space) to grizzly bears. Finally, various land uses with potential for grizzly/human conflicts can make grizzly bears vulnerable to human-caused mortality.

Land and resource uses may have positive, neutral, or negative effects upon grizzly bears and their habitat. The effect depends upon the type, location, and season of use relative to the desired ecological condition of the habitat and human activity in the area. Although individual uses may be well planned and not affect the grizzly bear or its habitat, the combined effect of several activities (over time and space) may be negative.

Habitat mapping and cumulative effects assessment are tools the land manager can use to identify conflicts and opportunities for grizzly bear recovery actions.

E. Forest Relationship to Mortality Objectives for the Ecosystem

In order to facilitate recovery, all Forests have a target of no (zero) preventable grizzly bear mortalities. A preventable mortality is one which could have reasonably been avoided by management actions, and is not a legal hunting mortality.

The mortality target includes actions to describe the measures to prevent mortality and to display the causes of mortality from records kept for the last several decades. The following table displays the various causes of mortality over time.

GRIZZLY BEAR MORTALITY FROM 1950 THRU 1986,
Cabinet-Yaak Ecosystem*

| MORTALITY FACTOR | LOCATION | CIRCUM-STANCES | 1950-1959 | 1960-1969-s | 1970-1979 | 1980-1986 |
|------------------|-----------|----------------|-----------|-------------|-----------|-----------|
| Hunter Kill | Point | AP | 2 | 0 | 0 | 0 |
| Hunter Kill | Point | ANP | 0 | 0 | 0 | 0 |
| Hunter Kill | Linear | AP | 0 | 0 | 0 | 0 |
| Hunter Kill | Linear | ANP | 0 | 0 | 0 | 0 |
| Hunter Kill | Dispersed | AP | 0 | 0 | 0 | 0 |
| Hunter Kill | Dispersed | ANP | 5 | 2 | 1 | 0 |
| All Other | Point | AP | 9 | 5 | 5 | 0 |
| All Other | Point | ANP | 0 | 0 | 0 | 0 |
| All Other | Linear | AP | 0 | 0 | 0 | 0 |
| All Other | Linear | ANP | 2 | 0 | 0 | 0 |
| All Other | Dispersed | AP | 0 | 1 | 1 | 0 |
| All Other | Dispersed | ANP | 2 | 1 | 1 | 1 |

| | | | | | | |
|------------------------|------|---|---|---|--|---|
| PREVENTABLE GOAL | | | | | | 0 |
| Preventable | 9 | 5 | 5 | 0 | | |
| Nonpreventable | 25** | 4 | 3 | 1 | | |
| TOTAL | 34 | 9 | 8 | 1 | | |

Definitions:

- Hunter kill - Legal kills not incidental to other big game hunting.
 All other - Includes illegal kills, depredations, control actions, chance occurrence, defensive actions, and poisoning.
- Point - A specific location associated with human activities, e.g. camp, lookout, cabin.
 Linear - Associated with a road or trail.
 Dispersed - No association with roads, trails, or point sources - a random location.
- AP- Attractant Present (see Attractant)
 ANP- Attractant Not Present (see Attractant)
 Attractant - Food, garbage, livestock (dead or alive), big game carcasses, stock feed.

Totals do not include three known mortalities of relocated bears. Some older data is sketchy and subjective interpretations of occurrence were made.

* Figures are for Montana only, no Idaho figures included.

** Includes 14 hunter kills for which no specific information is known.

III. Grizzly Management Situation Guidelines

The following grizzly bear management guidelines have been established as part of the Kootenai Forest Plan management direction and are included in this EIS to demonstrate the Forest's method and intent to meet the grizzly bear recovery goals.

A. Introduction

This policy and guideline statement was developed for three major reasons;

1. to promote the unification of grizzly bear management in the Northern Region through a consistent set of guidelines applied by all Forests, and
2. to clearly establish a policy for the management of grizzly bears and their habitat on the Kootenai National Forest.
3. to pull together, in one document, the numerous guidance and procedural directions that have been in existence on the Kootenai but are located in many different documents. In this context, this set of guidelines contains little new information or direction.

As a federal entity, the Kootenai National Forest is clearly responsible for ensuring that any action funded, authorized or carried out be done in a manner which does not jeopardize the continued existence of grizzly bears or adversely modify their habitat. This responsibility under Section 7 of the Endangered Species Act is fulfilled through the development of biological evaluations or assessments which examine the proposed actions with respect to their potential for influencing grizzly bears or their habitat. If this objective analysis, conducted by qualified personnel (generally operational wildlife biologists), cannot clearly determine that the action will not affect grizzly bears or their habitat then formal consultation with the Fish and Wildlife Service will be initiated. This formal step provides for an interagency exchange of information and ideas and significantly strengthens the application of the Endangered Species Act.

Grizzly bears on the Kootenai occupy portions of two primary ecosystems. In the northeast portion of the Forest grizzly bears occupy about 3 percent of the Northern Continental Divide Ecosystem (NCDE), roughly 207,000 acres. In this area, though listed as a threatened species, grizzlies can be legally hunted. An apparent extension of this ecosystem southwest of Highway 93 contains 90,000 acres within which grizzlies may not be hunted.

The other ecosystem on the Kootenai is the Cabinet-Yaak Ecosystem (CYE), of which the Kootenai manages about 70 percent or roughly 828,000 acres. Grizzly bears have not been legally hunted in this area since 1974 and only two mortalities of native bears have been known to occur since that date.

Grizzly bears were listed as a threatened species in 1975 and numerous actions have been taken since to stabilize their decline and to assist in recovery. Among these actions on the Kootenai are:

1. The delineation of essential habitat in coordination with other Forests in Region One.
2. The development and publication of guidelines for harvesting timber in grizzly bear habitat.
3. Participation in the development of the recovery plan.
4. The stratification of essential habitat into management situations specific to the Kootenai National Forest.
5. The development and implementation of a relocation plan in conjunction with other responsible agencies.
6. The development and application of habitat component mapping and cumulative effects analysis.
7. The inclusion of grizzly habitat and specific management prescriptions in Forest level planning.

Most of the management emphasis on the Kootenai has focused on habitat. Over most of the Forest an accurate data base has been developed down to the habitat component level. It is agreed by all responsible agencies that suitable habitat exists in the CYE but that a low density, small population of grizzlies is present. On the other hand, that portion of the NCDE that exists on the Kootenai supports a relatively high density of grizzlies and is intrinsically bound to populations of bears in the Flathead drainage, which have been relatively well studied in the past 10 years.

Initiation of a grizzly study and the trapping of a native female grizzly in the Cabinets in 1983 was a first step in gaining information on grizzly bears native to the CYE. To date 3 native grizzly bears have been trapped and radio-collared in the Cabinets. Two grizzlies have also been captured and radio-collared in conjunction with a black bear study in the Yaak. Study of these bears will focus on habitat use, movement patterns, and home range sizes for native grizzly bears.

Data collected in the study will be used to update or modify current management guidance which is predominantly based on data extrapolated from other studies. The management guidance contained in this document is dynamic and will be updated as needed.

The precise population of grizzlies in the CYE will probably never be known. As the extent and accuracy of grizzly data develops, population estimates will be established using criteria identified in the Recovery Plan. Until better population information exists, management emphasis will focus on the maintenance of desirable conditions in occupied grizzly habitat. The target population density for the CYE identified in the Recovery Plan is 1:26 square miles which would result in a grizzly population on the Kootenai of about 49 bears.

In contrast, relatively good data exists for parts of the NCDE relative to the Kootenai's portion. It is felt the area supports a density of about 1:15 square miles or about 14 bears. Sightings and sign substantiate the presence of a good population of bears and the area is open to legal hunting for grizzlies. In general, it is felt the area supports a viable population of grizzlies.

B. Definitions

All Forests in the Northern Region (R-1) have been directed to stratify their grizzly habitat according to definitions in the "Interagency Grizzly Bear Guidelines" (formerly the "Yellowstone Guidelines"). Through application of a common set of situation descriptions, all Forests will have a common basis from which to operate.

Prior to the use of the Interagency Guidelines the Kootenai developed a habitat stratification similar in concept and has applied that mapping to management activities for the past 6 years. The Kootenai stratification emphasized habitat condition, season of use, and history of use. Mapping of the Kootenai situations was done at a much smaller scale than the Interagency Guideline situations and functions essentially as a substratification within the various Interagency Guideline situations. The Kootenai stratification has served well and will be absorbed into the current guidelines and defined as a "mode," or particular form of habitat within the various situations. Incorporation of the Interagency Guideline situation descriptions by the Kootenai will help achieve uniformity among Forests in R-1 but, recognition of the various "modes" within the situations will allow the Kootenai to retain an effective management tool. In addition, habitat component mapping will serve as another level of refinement as illustrated below:

| | | | |
|-------------------------------------|---|---------------------------------|---------------------------------|
| Occupied Habitat (Recovery Plan) | Interagency Guidelines Situations | Kootenai Management Modes | Habitat Component Mapping |
|-------------------------------------|---|---------------------------------|---------------------------------|

>----->-----> Increasing Level of Resolution >----->----->

Interagency Guideline Descriptions

Management Situation 1

1. Population and Habitat Conditions. The area contains grizzly population centers (areas key to the survival of grizzlies where seasonal or year-long grizzly activity under natural, free-ranging conditions is common) and habitat components needed for the survival and recovery of the species or a segment of its population. The probability is very great that major federal activities or programs may affect (have direct or indirect relationships to the conservation and recovery of) the grizzly.

2. Management Direction. Grizzly habitat maintenance and improvement and grizzly/human conflict minimization will receive the highest management priority (FSM 2603). Management decisions will favor the needs of the grizzly bear when grizzly habitat and other land use values compete. Land uses which can affect grizzlies and/or their habitat will be made compatible with grizzly needs or such uses will be disallowed or eliminated. Grizzly/human conflicts will be resolved in favor of grizzlies unless the bear involved is determined to be a nuisance. Nuisance bears may be controlled through either relocation or removal, but only if such control would result in a more natural, free-ranging grizzly population and all reasonable measures have been taken to protect the bear and/or its habitat (including area closures and/or activity curtailments).

Management Situation 2

1. Population and Habitat Conditions. Current information indicates that the area lacks distinct population centers; highly suitable habitat does not generally occur, although some grizzly habitat components exist and grizzlies may be present occasionally. Habitat resources in Management Situation 2 either are unnecessary for survival and recovery of the species, or the need has not yet been determined but habitat resources may be necessary. Certain management actions are necessary. The status of such areas is subject to review and change according to demonstrated grizzly population and habitat needs. Major Federal activities may affect the conservation of the grizzly bear primarily in that they may contribute toward (a) human-caused bear mortalities or (b) long-term displacement where the zone of influence could affect habitat use in Management Situation 1.
2. Management Direction. The grizzly bear is an important, but not the primary, use on the area. In some cases, habitat maintenance and improvement may be important management considerations. Minimization of grizzly-human conflict potential that could lead to human-caused mortalities is a high management priority. In this management situation, managers would accommodate demonstrated grizzly populations and/or grizzly habitat use in other land use activities if feasible, but not to the extent of exclusion of other uses. A feasible accommodation is one which is compatible with (does not make unobtainable) the major goals and/or objectives of other uses. Management will at least maintain those habitat conditions which resulted in the area being stratified Management Situation 2. When grizzly population and/or grizzly habitat use and other land use needs are mutually exclusive, the other land use needs may prevail in management considerations. In cases where the need of the habitat resources for recovery has not yet been determined, other land uses may prevail to the extent that they do not result in irretrievable/irreversible resource commitments which would preclude the possibility of eventual restratification to Management Situation 1. If grizzly population and/or habitat use represents demonstrated needs that are so great (necessary to the normal needs or survival of the species or a segment of its population) that they should prevail in management considerations, then the area should be reclassified under Management Situation 1. Managers would control nuisance grizzlies.

Management Situation 3

1. Population and Habitat Conditions. Grizzly presence is possible but infrequent. Developments, such as campgrounds, resorts or other high human use associated facilities, and human presence result in conditions which make grizzly presence untenable for humans and/or grizzlies. There is a high probability that major Federal activities or programs may effect the species conservation and recovery.
2. Management Direction. Grizzly habitat maintenance and improvement are not management considerations. Grizzly/human conflict minimization is a high priority management consideration. Grizzly bear presence and factors contributing to their presence will be actively discouraged. Any grizzly involved in a grizzly/human conflict will be controlled. Any grizzly frequenting an area will be controlled.

Kootenai Management Mode Descriptions

Each of the management situations may have substratifications, or modes, which reflect of the former Kootenai management situations. The four modes defined will assist primarily at the project level and be related to habitat conditions, habitat component information, and season of use. Decisions and policy will be influenced by the Yellowstone situation within which the modes fall. The modes are defined as follows:

Mode A - These areas contain population centers and a complexity of grizzly habitat components which provide essentially for yearlong needs, with the possible exception of spring range. Denning habitat is generally found in these areas. Generally, there is a history of bear occupancy and use that is well established through sightings or sign. These areas are often the most rugged, secluded, and remote areas on the Forest with a high component of nonforested or sparsely forested habitat.

Mode B - These areas are often proximate to Mode A areas but may have less complexity of grizzly habitat components, may lack denning habitat, and often have a high component of forested habitat. Habitat and cover types are often those which offer a high potential for enhancing bear foods through vegetative manipulation or which may currently provide grizzly foods. Generally some recognized and historical bear use has been documented.

Mode C - These are high value seasonal ranges upon which grizzly bears may depend for short, yet critical, periods of time. Most frequently these are spring and late fall ranges which meet pre and post denning needs. These areas are often at lower elevations and may be disjunct from Mode A or B areas.

Mode D - These areas generally provide little actual or potential for grizzly foods but serve predominantly as movement corridors, buffers, or connectors between areas of higher value and use. Cover needs are predominant and the ability for free movement through the area is a primary management consideration. Often there may be limited documentation of bear use.

C. Policy and Objectives

It is the policy of the Kootenai National Forest to conduct programs and activities in a manner which promotes the conservation of grizzly bears. This includes adherence to responsibilities outlined in Section 7 (ESA), and furtherance of the goals identified in the grizzly bear recovery plan. Inherent in this program will be coordination with all agencies responsible for grizzly management strategies. The following objective statements will assist in achieving this stated goal:

1. In partnership with cooperating agencies, strive to avoid human-induced mortalities on the Kootenai National Forest by;
 - a. increasing public awareness of grizzly bear behavior and habitat needs and by informing and educating the general public in back country behavior in grizzly habitat.
 - b. recognizing potentially hazardous situations and modifying management activities or public use to reduce conflicts.
2. On all Situation 1 acreage on the Kootenai, resolve conflicts in favor of grizzly bears and emphasize their welfare in management activities. Activities will be made compatible or they will be foregone.
3. Management direction for Interagency Guideline Situation 2 was initially developed in an ecosystem over five times larger than the Cabinet-Yaak and with a population of over 200 grizzly bears (Yellowstone). In view of these differences and with the consultation of the Fish and Wildlife Service, the Kootenai has elected to avoid, as much as possible, mutually exclusive resource activities by placing all Interagency Situation 2 areas into compatible management emphasis (prescription). Thus, multiple use activities will be designed and coordinated in a manner which is compatible with grizzly bear behavior and habitat needs.
4. In Situation 3 areas manage to avoid attracting grizzly bears or creating situations which bring bears into contact with humans. Actively discourage grizzly presence in these areas.
5. In all situations, strive to develop a grizzly management program which maintains and enhances identified grizzly bear habitat, incorporates relevant research and management information into all applicable activities, and supports the conservation and recovery of the species.

| <u>Ecosystem</u> | <u>Acreages</u> | | |
|--------------------------|------------------------|------------------------|------------------------|
| | <u>Sit 1 (M Acres)</u> | <u>Sit 2 (M Acres)</u> | <u>Sit 3 (M Acres)</u> |
| Cabinet-Yaak | 628 | 200 | .8 |
| Northern Cont. Divide | 116 | 90* | .4 |

*Extension SW of Highway 93

D. Management Guidelines and Standards

The following guidelines and standards will provide for a more consistent interpretation and implementation of the Interagency Guidelines on the Kootenai:

Guidelines provide broad direction that should be sought in all management activities but may be altered on the basis of site specific needs as determined in a biological evaluation. Standards provide specific direction in management areas. Forest Supervisor approval is mandatory for deviation from standards.

At least annually the Kootenai will confer with the Fish and Wildlife Service on any changes that are needed in standards and guidelines. Historically, the Kootenai has had frequent informal and formal consultations with the Fish and Wildlife Service. These guidelines may reduce the number of formal consultations needed but continuation of the informal consultations is important. The need for consultation will be determined on the basis of a biological evaluation, the development of which will be consistent with FSM 2670.

The grizzly bear recovery plan will be used as a reference document in identifying activities and steps that can be incorporated into Forest management to promote the recovery of the species.

| <u>Wildlife Management</u> | <u>Std</u> | <u>Guide</u> | <u>S1</u> | <u>S2</u> | <u>S3</u> |
|---|------------|--------------|-----------|-----------|-----------|
| 1. Keep abreast of current research activities and data relating to grizzly bears and their habitat. Ensure that current, applicable data is incorporated in management activities. Initiate consultation with the Fish and Wildlife Service as necessary. | X | | X | X | X |
| 2. Utilize biological evaluations to determine project compatibility. On the basis of biological evaluations ensure that only projects which are compatible or which enhance grizzly habitat are initiated in Situation 1. Proposed projects or land uses in Situation 1 areas which are not compatible will be modified or foregone. | X | | X | | |
| 3. On the basis of biological evaluations projects are made as fully compatible as possible, consistent with the other resource goals of the area. If a proposal causes an unresolvable conflict and the evaluation indicates that the activity will affect species survival and recovery (jeopardy) then the area should be reconsidered for Situation 1 status. If resolution of the conflict and resultant use of the area by grizzly bears does not constitute need for species survival and recovery then the project shall proceed as modified. | X | | | X | |
| 4. Measures taken to protect, maintain or enhance grizzly bear habitat will be documented in biological evaluations and specified in project design. Project level environmental assessments or decision documents will clearly reflect consideration of grizzly habitat management recommendations. | X | | X | X | X |
| 5. Develop a public information and education program with the assistance of other responsible agencies. Emphasize bear habitat needs, bear behavior, minimization of grizzly/human conflicts, and the need for a comprehensive management program which will lead to recovery of the species. | X | | X | X | X |

| | <u>Std</u> | <u>Guide</u> | <u>S1</u> | <u>S2</u> | <u>S3</u> |
|---|------------|--------------|-----------|-----------|-----------|
| 6. Develop a long range grizzly management program which includes at least the following: 1) identification of management information needs, 2) updating of grizzly habitat maps, 3) maintenance of sighting records and evidence of grizzly use and occupation, 4) refinement of situation mapping on the basis of changes in habitat suitability, population and distribution, 5) modification of standards and guidelines in management prescriptions on the basis of new data, 6) identification of direct habitat management activities which will protect or enhance grizzly habitat, and 7) identification of potential relocation or population augmentation areas. | X | | X | X | X |
| 7. Identify and strive to make unavailable food sources which may draw grizzly bears into potential conflict with humans. These food sources may include the carcasses of livestock or wildlife, garbage dumps, food caches in backcountry areas, or roadside seeding of succulent grasses and legumes. Cooperate with federal, state, county, and private entities in achieving this guideline. | X | | X | X | X |
| 8. Utilize a cumulative effects perspective in developing management guidelines and constraints at the project level. | X | | X | X | X |
| 9. Monitor the application of these standards and guidelines to assure they are properly and effectively used. Modify standards and guidelines as needed and with the cooperation of the Fish and Wildlife Service. | X | | X | X | X |

Timber/Fire Management

| | | | | | |
|--|---|--|---|---|--|
| 1. All proposed timber and fire management activities will be evaluated for their effects on grizzly bears and their habitat. A cumulative effects perspective will be used in the evaluation. Employment of habitat component information and grizzly use data will be part of the evaluation. Proposals will be evaluated with respect to how they affect grizzly bear management objectives on the Kootenai National Forest. Applicable contracts will include specific clauses to achieve management goals and objectives and, in Situation 1, a clause which provides for a suspension or temporary cessation of activities if such is needed to resolve a grizzly/human conflict situation. Both contractual stipulations and administration will be used to ensure that contractors cooperate in meeting grizzly management objectives. | X | | X | X | |
|--|---|--|---|---|--|

| | <u>Std</u> | <u>Guide</u> | <u>S1</u> | <u>S2</u> | <u>S3</u> |
|--|------------|--------------|-----------|-----------|-----------|
| 2. Grizzly habitat may be improved through vegetative manipulation. Techniques which may cause improvement are silvicultural treatments, prescribed burning and sale area improvement activities, | | | | | |
| a. on the basis of a biological evaluation, grizzly habitat components will be identified and included in the consideration of the project. This may include protection or enhancement of a particular component and provision for their use by bears. | X | | X | X | |
| b. Timing constraints, scheduling, maintenance of movement corridors, shortened contract periods, provision of displacement areas, and access management will be considered and implemented as needed in project design. | X | | X | X | |
| c. <u>Silvicultural treatment</u> in some habitat types can significantly improve available bear foods. Identification of these habitat types and provision for the improvement of bear foods will be incorporated in project design consistent with other considerations such as; | X | | X | X | |
| 1. design of regeneration units should stress irregular edges where consistent with site preparation capabilities (e.g., prescribed fire). | | X | X | X | |
| 2. adequate cover, movement corridors, leave islands and spacing between units will be incorporated in project design to facilitate bear movement into and through project areas so that existing components and new food sources can be utilized. | | X | X | X | |
| 3. favor site preparation techniques which protect or enhance known bear foods. Use prescribed burning where dozer scarification results in the destruction or adverse modification of bear foods such as huckleberries. | | | X | X | |
| 4. road locations will be placed to avoid the destruction of known habitat components unless the biological evaluation indicates the component loss is tolerable with respect to other results of the project. | X | | X | X | |
| 5. small sale activities will be coordinated with large sale activities and will be equally responsive to grizzly management goals and objectives and Kootenai standards and guidelines. | X | | X | X | |

| | <u>Std</u> | <u>Guide</u> | <u>S1</u> | <u>S2</u> | <u>S3</u> |
|---|------------|--------------|-----------|-----------|-----------|
| 6. riparian zone treatments will follow policy established by the Forest Plan. | X | | X | X | |
| d. <u>Sale area improvement</u> projects funded from timber sale receipts collected for post treatment activities (KV funds) should receive high priority where there is potential for improvement of grizzly habitat in sale areas. Such activities may include the following: | X | | X | X | |
| 1. revegetation with grasses and legumes in those areas where bears can safely feed and would benefit from increased foods (especially spring ranges) | | | | | |
| 2. improvement or reestablishment of cover conditions in important feeding or movement areas | | | | | |
| 3. implementation of road management where open road densities are at higher levels than desirable | | | | | |
| 4. prescribed burning in those habitat situations where increased succulence or improved fruit production will result or grizzly foods will be improved or made available. | | | | | |
| e. <u>Prescribed burning</u> both as a direct habitat improvement technique and as a site preparation technique will be used to enhance grizzly habitat where vegetative or habitat type conditions indicate. Specific instances where prescribed burning is an important technique include; | X | | X | X | |
| 1. burning of identified shrub fields to enhance fruit production | | | | | |
| 2. recognition of the value and incorporation of wildfire in wilderness and nonwilderness situations where fire has been an important factor in maintaining grizzly habitat. | | | | | |
| 3. Roads associated with project proposals will be an integral part of the analysis conducted in the biological evaluation. This will include existing roads and new road proposals. Grizzly bear management and Kootenai grizzly objectives will be included in the development of area transportation plans or any similar comprehensive access planning document. Specific consideration will be given to the following: | X | | X | X | |

| | <u>Std</u> | <u>Guide</u> | <u>S1</u> | <u>S2</u> | <u>S3</u> |
|--|------------|--------------|-----------|-----------|-----------|
| a. Consistent with standards and guidelines in Plan prescriptions, open road densities will be reduced as determined in biological evaluations for project activities. Generally, this includes closure of all local roads and an average open road density not to exceed .75 mile/section. | X | | X | X | |
| b. Road closures may be facilitated by physical barriers, gates, or other means as specified in biological evaluations. Timing and duration of closures will be identified in biological evaluations. | | X | X | X | X |
| c. Road design and standards should be those which minimize conflict with wildlife values yet meet safety and environmental considerations. Criteria generally include: | | X | X | X | |
| 1. minimum number of miles to achieve project objectives | | | | | |
| 2. minimum clearing widths, low cuts and fills, and high diversity in vertical and horizontal alignment | | | | | |
| 3. roads which "lay on the land" | | | | | |
| 4. maximum use of local roads, minimize arterials and collectors. | | | | | |
| 4. Facilities such as camps or equipment storage areas will be located away from known grizzly use areas or identified habitat components. For those camps which are allowed in proximity to grizzly habitat there will be strict regulation of garbage, pets, and human waste to minimize grizzly/human conflict. | X | | X | X | X |
| 5. Development of Forest level fire management plans will include information about grizzly habitat and incorporation of prescribed fire where it can benefit grizzly habitat and not conflict with other resource values (e.g., municipal watersheds, old growth, regulated timberlands). | X | | X | X | |

| | <u>Std</u> | <u>Guide</u> | <u>S1</u> | <u>S2</u> | <u>S3</u> |
|---|------------|--------------|-----------|-----------|-----------|
| <u>Range Management</u> | | | | | |
| 1. All livestock use on allotments will be analyzed in a biological evaluation to determine the effect on grizzly habitat and the potential for conflict with grizzly bears. This evaluation will be accomplished as part of the preparation or revision of allotment management plans unless specific problems dictate immediate action. | X | | X | X | |
| 2. Grazing activities with the potential for conflict with grizzly management objectives will be modified to be compatible with grizzly habitat needs. Disposal of carcasses will be done in a manner which minimizes the potential for grizzly/human conflicts. | X | | X | X | |
| 3. Regional grizzly bear protection clauses will be included in annual permittee operating plans. | X | | X | X | |
| <u>Recreation Management</u> | | | | | |
| 1. The following examples of uses, developments, or activities will be evaluated to determine their compatibility with grizzly bear objectives; | X | | X | X | X |
| a. proposed roads and trails (foot, trail, vehicle) | | | | | |
| b. proposed campgrounds, designated campsites, picnic areas, trail heads, visitor information facilities, and other structures or facilities for recreation and administrative use | | | | | |
| c. proposed special use resorts, cabins, base camp sites, outfitter stock grazing areas, and areas used for grazing by noncommercial recreation stock | | | | | |
| Any of the above which currently exist and which may be in conflict with grizzly management objectives should be evaluated in a cumulative effects/biological evaluation process. | | | | | |
| 2. All recreation oriented environmental analyses will incorporate grizzly management objectives and specify measures or clauses necessary to meet them. All contracts, permits, and operating plans will include provisions specifically addressing Region 1 grizzly bear protection measures (2670 memo of 11/3/83). | X | | X | X | X |

| | <u>Std</u> | <u>Guide</u> | <u>S1</u> | <u>S2</u> | <u>S3</u> |
|--|------------|--------------|-----------|-----------|-----------|
| 3. <u>Attractants</u> | | | | | |
| a. Garbage containers will be of a bear-proof design or existing facilities will be modified and made bear proof. Garbage pickup will be scheduled to minimize the potential of developing a bear attractant at container locations | X | | X | X | X |
| b. Existing and proposed garbage dump sites will be evaluated to determine if problems exist. The Forest will coordinate with county officials in the location and management of dump sites and dumpsters. | | X | X | X | X |
| c. Operators with special use permits will be required to make garbage unavailable to bears through the use of bear-proof containers and regular collection and offsite disposal in approved locations. Permit clauses or stipulations will reflect these standards. | X | | X | X | X |
| d. Outfitter/guide permits will specify measures to be taken in terms of food storage, refuse disposal and wild meat storage. Work with Montana Department of Fish, Wildlife, and Parks on enforcement of the permit regulations. | X | | X | X | X |
| e. Use of established nondeveloped campsites will be adjusted as necessary to prevent a buildup of odors or improperly handled garbage which could attract grizzlies. | | X | X | X | X |
| f. An information brochure summarizing human conduct in grizzly country will be made available to the public. A supply of the brochure will be made available to local offices of the Montana Department of Fish, Wildlife, and Parks. | | X | X | X | X |
| g. Trails, roads, and areas with histories of grizzly human encounters or areas where grizzly use increases grizzly encounter potential, may be closed to human use either temporarily in Situation 1 and 2 or permanently in Situation 1 to reduce conflict potential. | X | | X | X | |
| h. If backcountry recreational use is determined to exceed grizzly tolerance levels, some means of restriction or reduction of human use should be implemented (i.e., permit system or reevaluation of commercial use) to avoid displacement of grizzlies from suitable habitat. | | X | X | X | |

| | <u>Std</u> | <u>Guide</u> | <u>S1</u> | <u>S2</u> | <u>S3</u> |
|--|------------|--------------|-----------|-----------|-----------|
| i. Reduce grizzly mortality illegally occurring during big game hunting seasons by: | | X | X | X | |
| 1. Assisting Montana Department of Fish, Wildlife, and Parks in making information available to all hunters to assist them in distinguishing between black and grizzly bear. | | | | | |
| 2. Assisting Montana Department of Fish, Wildlife, and Parks in issuing special warnings to hunters using areas frequented by grizzly bear. | | | | | |
| 3. Recommending that black bear hunting regulations be modified as appropriate to reduce or avoid areas or time periods of significant conflicts. | | | | | |
| 4. Road closures in key grizzly bear habitat. | | | | | |

Land Adjustment

| | | | | | |
|---|---|--|---|---|--|
| 1. All land adjustment proposals will be analyzed in a biological evaluation to determine the effect on grizzly bears and their habitat. On that basis; | X | | X | X | |
| a. consummate exchanges which contribute habitat or improve the opportunity to manage grizzly bears toward recovery levels | | | | | |
| b. emphasize the acquisition of critical habitat components or important seasonal ranges (especially spring range) | | | | | |

Minerals, Special Uses, and Watershed Management

| | | | | | |
|---|---|--|---|---|---|
| 1. Proposed activities for a) minerals, oil and gas, microhydro, and geothermal exploration and development; b) special use permits such as powerlines, pipelines, and water developments; c) all uses which require no special use permit (FSM 2708) will be analyzed in a biological evaluation to determine their effect on grizzly bears and their habitat. In Situation 1 these activities will be made compatible with grizzly bear management objectives. In Situation 2 they will be made as compatible as possible consistent with other resource uses and statutory rights and implementation will be monitored if remaining conflicts are judged to be potentially important in a biological evaluation. If significant conflicts develop, further modification of activities or restratification of the habitat may be necessary. | X | | X | X | X |
|---|---|--|---|---|---|

| | <u>Std</u> | <u>Guide</u> | <u>S1</u> | <u>S2</u> | <u>S3</u> |
|---|------------|--------------|-----------|-----------|-----------|
| 2. Oil and gas leasing on the Kootenai will be in accordance with current Kootenai EA's on the subject, Forest grizzly habitat stratification, and Forest management objectives. | X | | X | X | |
| 3. All operating plans and special use permits will reflect Forest grizzly bear objectives and contain appropriate clauses or stipulations needed to meet the objectives. Provisions specifically identified in Region 1 grizzly bear protection measures (2670 memo of 11/3/83) will be incorporated in all operating plans and permits. Of specific concern are at least the following: | X | | X | X | X |
| a. Food, garbage and human waste will be handled in a manner which minimizes or eliminates them as bear attractants. | X | | X | X | |
| b. Firearms and pets will not be allowed where the biological evaluation identifies them as problems. | X | | X | X | |
| c. Temporary living facilities will be located away from known bear use areas, away from habitat components or not allowed as determined by a biological evaluation. | X | | X | X | |
| d. Development of new access or access routes that are incompatible with Forest management objectives will be discouraged within legal bounds. | X | | X | X | |
| e. Periods of operation will be modified to eliminate or minimize conflicts with grizzly bears as determined in a biological evaluation. | X | | X | X | |

2 4 8

E. Applicable Documents

In addition to these policy, objective, standard, and guideline statements, there are numerous other documents which clarify and support the items addressed herein. They include, but are not limited to, the following:

1. Grizzly Bear Recovery Plan
2. Habitat Component Mapping/Cumulative Effects Process, Kootenai National Forest
3. Cabinet-Yaak Ecosystem Data Sheet
4. Region One Grizzly Action Plan
5. Region One Grizzly Bear Clauses
6. Kootenai National Forest Integrated Plan as revised
7. Prescriptions, standards, and guidelines in Kootenai Integrated Plan
8. Criteria for Nuisance Bears and Relocation of Grizzly Bears in the Cabinet-Yaak and Northern Continental Divide Ecosystems
9. Guidelines for Timber Harvest in Grizzly Bear Habitat
10. Interagency Grizzly Bear Guidelines
11. Charting the Course - The Forest Service Grizzly Bear Conservation Program

IV. Augmentation

Augmentation, basically an effort to increase the numbers of a species when used in a wildlife context, is a well accepted and routine wildlife management practice. Over the past 30 years on the Kootenai National Forest, elk, bighorn sheep, mountain goats, fisher, and grizzly bears have been brought in to increase native populations. The augmentation of elk and bighorn sheep has been very successful while success with the other species has ranged from moderate to poor.

With specific regard to grizzly bears, seven different bears have been added to the Cabinet-Yaak grizzly population between 1979-1983 (none during the last four years). None of the seven bears are currently known to remain on the Forest. These bears were moved under a relocation agreement pertaining to bears which were determined to be problems or nuisance bears in other locations. Participants in this effort included the Montana Department of Fish, Wildlife, and Parks, the Fish and Wildlife Service, other National Forests, and Glacier National Park. This relocation agreement helped expedite the movement of grizzly bears into areas where conflicts with humans could be reduced or eliminated. Grizzlies moved under this relocation agreement were not selected for either the greatest chance for survival or for their capability to best contribute to the population into which they were relocated. Rather, they got into various circumstances that necessitated their removal and were accepted into new locations on the basis of their potential as risks in further human/bear conflicts. Thus, relocation efforts are significantly different in their intent and in the candidate grizzly bears than what would occur in an augmentation effort.

While the population of grizzly bears in the Cabinet-Yaak Ecosystem is unknown, there is solid evidence and agreement among managing agencies that the existing population is very low in number. The habitat for grizzlies in the Cabinet-Yaak Ecosystem is capable of supporting additional grizzly bears, as evidenced by the historical population and the abundance and diversity of bear foods identified through component mapping. When sufficient habitat exists and a native population is at low numbers, augmentation becomes an option for increasing a species numbers through placement of selected individuals of the most desirable sex and age into the best habitat conditions and at the most advantageous time. Because grizzly bears have such a naturally low rate of reproduction and the fact that when populations become very low in number they may not be capable of recovery on their own, augmentation of grizzly bears in the Cabinet-Yaak Ecosystem may, in fact, be necessary to ensure the survival of this population in the future. Left to their own, the Cabinet-Yaak grizzly bear population would likely not reach recovery and would remain extremely sensitive to any mortality or major habitat disturbances. Successful augmentation would give the population more resiliency toward mortality or habitat disturbance, as well as ensure their future survival. With or without augmentation the identified grizzly habitat on the Kootenai National Forest will be managed according to the guidance contained in the proposed Forest Plan and supporting documents to ensure the opportunity for the existing grizzly bears to prosper.

Planned augmentation could occur under several distinct alternatives or as a mix of several alternatives. A range of augmentation alternatives that could be described and evaluated are:

1. No Action: continue to manage the native population within the guidance identified in the proposed action.
2. Augmentation with grizzly bears acceptable under existing relocation agreements; basically a continuation of past relocation efforts as has occurred since 1977.
3. Augmentation with specific bears of a predetermined sex and age placed into specific habitat conditions at the most opportune times. Essentially the type of augmentation practiced with other wildlife species.
4. Augmentation by means of cross-fostering grizzly bear cubs with black bear mothers. This procedure has been successful with raptors and cranes and groundwork has been laid working with black bears.
5. A mix of alternatives 2, 3, and 4 dictated by grizzly bear availability, knowledge of potential surrogate black bear mothers, and the condition and availability of nuisance bears.

In the Kootenai National Forest planning process, all alternatives analyzed were designed to provide the habitat and management conditions which offer the potential for the grizzly bear population to recover. Recovery is the goal which can be reached through the means of various tools. Specific allocations of Forest land and management guidelines which direct activities that affect grizzly habitat are two such tools. Augmentation should be viewed as another tool that can contribute significantly to the effort to recover grizzly bears on the Kootenai National Forest.