Interagency Grizzly Bear Guidelines

This is an animal that cannot compromise or adjust its way of life to ours. Could not by its very nature, could not even if we allowed it the opportunity, which we did not. For the grizzly bear there is no freedom but that of unbounded space, no life except its own. Without meekness, without a sign of humility, it has refused to accept our idea of what the world should be like. If we succeed in preserving the wild remnant that still survives, the glory will rest primarily on this bear whose stubborn vigor has kept it alive in the face of increasing and seemingly hopeless odds.

-adapted from Robert Porter Allen

DOCUMENT PREPARATION

This document has been in various stages of development since 1975. As a result, many individuals have contributed significantly to its final form. The Shoshone National Forest was the lead unit in preparation of the guidelines. Specific management measures were developed in close consultation with bear researchers and the various National Park, National Forest, Fish and Wildlife Service, Bureau of Land Management and State wildlife agency units involved. Collation, editing and writing which resulted in the final Yellowstone Area document were done by Stephen P. Mealey.

Following publication of an overview of the Guidelines in the Federal Register and public meetings in 1985, the Interagency Grizzly Bear Committee approved four changes which have been incorporated into this document.

1986

PREFACE

These guidelines were developed as an interagency effort initially in the Greater Yellowstone Area. The guidelines were submitted to the U.S. Fish and Wildlife Service for formal consultation as required by 50 C.F.R., Sec. 402.04. The Biological Opinion states, "It is our opinion that implementation of the Guidelines will promote conservation of the grizzly bear." The Biological Opinion is enclosed as an appendix to the guidelines.

The Interagency Grizzly Bear Committee approved the application of these guidelines on National Forest System, Bureau of Land Management, and National Park System lands throughout grizzly bear ecosystems in the States of Idaho, Montana, Washington, and Wyoming. The guidelines are known as the Interagency Grizzly Bear Guidelines.

FOREWORD

There are many different images of the grizzly bear in the public view. Visions of fear and intimidation are often expressed along with those of beauty and respect.

In general, the public attitude toward grizzlies, as expressed through laws and regulations, has changed significantly during the last two decades. Officially, the grizzly can no longer be treated uniformly as an enemy and marauder to be killed without regulation or otherwise condemned as a result of actual or anticipated conflict with man. Instead, the species is now highly valued for its own sake and for the sake of maintaining ecosystem stability through species abundance and diversity. In addition, the grizzly is highly valued as a representative, perhaps an indicator, of truly wild places which anchor the human conscience in images of human and nonhuman origins and pristine ecosystem functioning.

The resource management agencies are proud to accept the management charge of the Endangered Species Act to conserve the grizzly bear, a threatened species. These management guidelines will serve as the basis for our aggressive pursuit of the objectives of conserving grizzly bears and their habitat and of providing balanced resource uses to meet the overall management goal of providing a sustained flow of all wildland resources.

I. INTRODUCTION

The Endangered Species Act (ESA) (P.L. 93-205) requires special protection and management on Federal lands for the grizzly bear (Ursus arctos horribilis), a threatened species. Federal and State personnel cooperatively developed guidelines for grizzly protection and management in the National Forests, National Parks, and Bureau of Land Management lands in the grizzly bear ecosystems in compliance with ESA.

II. BACKGROUND

On August 1, 1975, the grizzly bear south of Canada was determined to be a threatened species by the Secretary of Interior under ESA authority. This determination required Federal agencies to:

1. utilize their authorities to carry out conservation programs for listed species;

2. insure that their activities not jeopardize the continued existence of a listed species; and,

3. insure that their activities or program not result in the destruction or adverse modification of critical habitat.

III. POLICY

A. Park Service Grizzly Bear Policy

Management policies of the National Parks are designed to:

1. restore and maintain the natural integrity, distribution and behavior of bears in the parks.

2. provide for visitors to understand, observe and appreciate bears,

3. provide for visitor safety by minimizing bear/human conflict by reducing human-generated food sources and by regulating visitor distribution.

Specifically, the Park Service will identify, within Park boundaries, grizzly habitat requirements. As necessary, the Service shall control visitor use and access to such habitat, including closure to entry for other than official purposes. Active management programs, where necessary, will be carried out to perpetuate the national distribution and abundance of grizzlies and the ecosystems on which they depend, in accordance with existing Federal laws. The Service will cooperate with the Fish and Wildlife Service, which is recognized as the lead agency in matters pertaining to threatened or endangered species.

Management actions for the protection and perpetuation of grizzly bears shall be incorporated into the resources management plan for the pertinent National Parks. The Bear Management Programs will complement and supplement these Guidelines.

B. Forest Service Grizzly Bear Management Policy

The Forest Service (FS) is committed to helping achieve recovery of the grizzly bear by carrying out active conservation programs in close cooperation with the States, U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management, and other agencies and groups.

The principal role of the Forest Service is to manage the habitat on the National Forests in a way that recovery can be accomplished. In helping to achieve recovery, the FS will establish and implement uniform planning and management procedures including:

1. A grizzly bear habitat mapping and cumulative effects analysis process (a tool for assessing effects of land management activities in time and space on occupied grizzly bear habitat.)

2. The resource management guidelines and grizzly management situations as established in the "Interagency Grizzly Bear Management Guidelines" (Guidelines).

3. Quantification of recovery objectives in Forest Plans including: (a) the amount of habitat needed for recovery, expressed as habitat capability when possible, and (b) objectives to decrease preventable human-caused mortalities.

The FS will emphasize actions which contribute toward conservation and recovery of the bear within areas identified in the Grizzly Bear Recovery Plan. Objectives are to maintain and enhance habitat and to minimize potential for grizzly-human conflicts. The FS will manage habitats essential to bear recovery for multiple land use benefits, to the extent these land uses are compatible with the goal of grizzly recovery.

Land uses which cannot be made compatible with the goal of grizzly recovery, and are under FS control, will be redirected or discontinued. Management guidelines and objectives, the cumulative effects process, and goals for habitat capability and mortality will be used to guide activities which are compatible with grizzly bear recovery. It is also the policy of the Forest Service to facilitate recreation use in occupied grizzly habitat to the extent such levels or use are compatible with both human safety and grizzly recovery objectives. Emphasis will be placed on information programs to raise the awareness of National Forest users about proper behavior in grizzly habitat.

Policy on specific grizzly bear issues is found in Forest Service Manual 2670.

IV. GRIZZLY BEAR MANAGEMENT SITUATIONS

Five different grizzly management situations are described. All involved National Forest, National Park, and Bureau of Land Management (BLM) lands will be identified by appropriate situations. Each management situation fits a type of land area where unique:

1. grizzly populations and habitat conditions exist; and,

2. management direction applies.

Forest Supervisors, Park Superintendents, and BLM Area Managers will identify the different management situations areas in their respective areas of responsibility.

A. Management Situation 1

1. Population and habitat conditions. The area contains grizzly population centers (areas key to the survival of grizzly 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 (improvement does not apply to Park Service), and grizzly-human conflict minimization will receive the highest management priority. 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).

B. 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 of 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 consideration. 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.

C. 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 affect 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.

D. Management Situation 4

1. Population and habitat conditions. Grizzlies do not occur in the area but habitat and human conditions make the area potentially suitable for grizzly occupancy, and the area is needed for the survival and recovery of the species. The probability is very great that major Federal activities and programs may affect the species' conservation and recovery.

2. Management direction. The grizzly bear is an important potential use on the area. Grizzly habitat maintenance and improvement are important management considerations. Grizzly-human conflict minimization is not a management consideration. Habitat and human conditions making the area suitable for grizzly occupancy will not be degraded pending decisions regarding reestablishment of grizzlies.

E. Management Situation 5

1. Population and habitat conditions. Grizzlies do not occur, or occur only rarely in the area. Habitat may be unsuitable, unavailable, or suitable and available but unoccupied. The area lacks survival and recovery values for the species or said values are unknown. Major Federal activities and programs probably will not affect species conservation and recovery.

2. Management direction. Consideration for grizzly bears and their habitat in other resource related decisions is not directed. Maintenance of grizzly habitat is an option. Any grizzly involved in a grizzly-human conflict will be controlled.

V. GRIZZLY BEAR MANAGEMENT GUIDELINES

Grizzly management guidelines for each of five resource management systems are listed for each management situation. The guidelines are grouped under the headings:

1. Maintain and Improve Habitat;

2. Minimize Grizzly-Human Conflict Potential; and,

3. Resolve Grizzly-Human Conflicts.

The heading subjects are the major grizzly management objectives.

GUIDELINES ARE SUBJECT TO CHANGE AS RESEARCH PROVIDES ADDITIONAL DATA AND/OR MANAGEMENT DIRECTIVES CHANGE.

These Guidelines and the attendant Management Situations represent a comprehensive and integrated approach to the goal of grizzly bear conservation. Although the context and direction for management may vary legitimately between Management Situations, management actions and human activities in MS 1 through MS 4 may influence grizzly bear conservation. The value of the Management Situation concept for grizzly bear management is most fully realized with proper stratification and implementation.

GRIZZLY BEAR MANAGEMENT GUIDELINES

MANAGEMENT SITUATION: 1

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Wildlife Management	1. Maintain close contact with research organizations to assure that current research data are being used in resource planning and administration affecting grizzlies.	→ 1.*	Line Officers will be provided with instructions for: (1) fact finding, including: (a) determination of where, why, when, and how the conflict occurred; (b) who was involved; (c) determination of status of problem bear (nuisance or non-nuisance) considering unnatural food dependency and individual bear history, see Appendix page (2) grizzly control, including names and phone numbers of personnel from State wildlife management agencies and the U.S. Fish and Wildlife Service, page 51.
	2. Complete a biological assessment (may use USDA Forest Service (1977) procedures and Interagency Cumulative Effects Assessment (1986)) of existing or proposed land uses (under the Recreation, Range, Timber and Fire and Minerals, Watershed and Special Uses Management Systems) which could affect grizzlies and/or their habitat.	→ 2.	
	3. Use cumulative effects analysis to assess spatial and temporal effects on habitat suitability and availability and mortality risk.	→ 3.	(3) live trapping; (4) tranquilization; (5) removal, including carcass disposal; (6) relocation, including maps of specific recommended relocation sites. Relocation plans with implications for National Parks, National Forests, and BLM lands will be reviewed and agreed upon by Park Service, and State wildlife management personnel.
	4. Initiate consultation procedures with the U.S. Fish and Wildlife Service, as necessary, if the biological assessment results in a "may affect" determination. BLM should initiate consultation related to mineral leasing.	→ 4.	
	5. With full awareness of the Biological Opinion, recommend project or land use modification which will provide compatibility between grizzly bears and other land uses without degrading conditions for grizzlies. If projects or land uses cannot be made compatible, recommend project or use elimination.	→ 5.	
	6. With full awareness of the Biological Opinion, specify measures to be taken within the different resource management systems which will protect, maintain and improve (NF, BLM) grizzly bear populations and habitat.		

* Arrows indicate the measures under MAINTAIN AND IMPROVE HABITAT also apply to MINIMIZE GRIZZLY-HUMAN POTENTIAL.

MANAGEMENT SITUATION: 1

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Wildlife Management (Continued)	7. With full awareness of the Biological Opinion, specify measures to, be taken independent of other resource management systems, to improve grizzly bear management. For example, inform the public of agency grizzly bear management goals and objectives. Enlist their support in meeting these goals and objectives.	→ 7.	
	8 Monitor the application of these guidelines to assure they are properly and effectively used. Recommend improvements in guidelines and application procedures.	8. Identify grizzly-human copnflict potential within the different resource management systems and recommend measures to minimize conflict potential.	
Timber and Fire Management	1. All proposed logging and burning activities will be evaluated for their effects upon grizzlies and/or their habitat. USDA Forest Service procedures (1977) and Interagency Cumulative Effects Assessment (1986) may be used (NF burning) (See Wildlife Management, above).	→ 1.	In cases of grizzly-human conflict, District Rangers in cooperation with state wildlife management agencies will immediately identify the cause by determing where, why, when, and how the conflict occured. If the problem bear is not determined to be a nuisance then correct the problem immediately by removing the man-related cause. Likely man-related causes are grizzly attractants and/or human activities interfering with grizzly use of habitat. Attractants include food and food odors associated with man, livestock carrion garbage, garbage dumps, prepared livestock and pet foods, camps or other dwellings, game meat in possession of man, and transportation and/or work livestock. Interference activities are those associated with logging or burning or fire control (camps) which disrupt grizzlies, grizzly habitat and/or grizzly use of habitat. Cause removal could involve simple activity modification or temporary or permanent activity curtailment. If the problem bear is determined to be a nuisance and all reasonable measures have been taken to protect the bear and habitat and a more natural grizzly
	2. Timber sale and fire management EAs will specify agency grizzly management goals and objectives and measures to meet them. Contracts will include specific measures to protect, maintain and/or improve grizzly habitat and meet grizzly management goals and objectives. Timber sale contracts will include a clause providing for cancellation or temporary cessation of activities if such are needed to resolve a grizzly-human conflict situation. Contractors' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding contracts (NP burning).	→ 2. Hab. capability must be maint. or improved. Cum. effects of Bdg logging etc must result in maint. or improv. hab. capability	

MANAGEMENT SITUATION: 1

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)	3. Logging and/or fire management activities which will adversely affect grizzly bear populations and/or their habitat will not be permitted. Adverse population effects are population reductions and/or grizzly positive conditioning. Adverse habitat effects are reductions in habitat quantity and/or quality (NP burning).	→ 3.	population would be a likely result of its control, the U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control. See Appendix, page 51 for guidelines for determining grizzly nuisance status and for controlling nuisance grizzlies.
	4. Grizzly habitat will be improved through vegetation manipulation. Silvicultural treatment, sale area improvement and managed burning are the meihods to accomplish manipulation (NF, BLM). (a) Silvicultural Treatment In some habitat types (Pfister et al, 1977) in grizzly range, timber harvest, especially selection and group selection cuts and small clearcuts with no dozer piling of slash and no mechanical soil scarification, produces important amounts of herbs and shrubs bearing fruits eaten by grizzlies. Production of grizzly food species in these cuts is often greater than in uncut sites in the same habitat types. This indicates that certain timber harvest practices can be used in some forest stands to increase their grizzly food value. It also indicates that grizzly habitat quality can probably be increased or enhanced by creating openings producing high quality grizzly food facilitating greater grizzly use in forest habitat where normal grizzly	4. Logging and burning activities will occur at a time or season when the area is of little or no biological importance to grizzlies. Where winter logging is infeasible, summer logging operations will be restricted in time and space to prevent significant disruptions of normal or expected grizzly activities.	

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Timber and Fire Management (Continued)	use appears light. Habitat types for possible treatment are subalpine fir/huckleberry (ABLA/VAGL and ALBA/VASC), spruce/horsetail (PICEA/EQAR), spruce/sweet-scented bedstraw (PICEA/GATR), and subalpine fir/bluejoint (ALBA/CACA). Others may be identified through future studies. Actual site specific vegetation responses will dictate the specific type of treatment and plant association to be treated. In general, grizzly habitat management in forested cover should * provide a balance of all successional stages on a sustained yield, even-flow basis. Composition and coverage of grizzly food sources in clearcuts which have been broadcast burned and are without extensive soil scarification are comparable to those of natural burns. This indicates that such man-made openings can become the vegetative equivalent of burns, some of which produce important grizzly foods. Group selection cuts and 10-20 acre irregularly shaped clearcuts, in which prescribed fire slash removal is used to duplicate wildfire, appear desirable for creating high * grizzly food producing openings. Desirable clearcut features include: (1) one or more leave or cover patches in cuts over 10 acres (2) minimum soil scarifaction in habitat types where soil		

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Timber and Fire Management (Continued)	disturbance impedes the re-establishment of grizzly foods (20 percent or less, preferably in a strip configuration) (3) slash disposal by spring broadcast burning in suitable habitat types and terrain or possibly no slash disposal and (4) protection of hydric stream bottoms, wet meadows, marshes and bogs from soil disturbance and security cover removal. Yarding methods should be designed to minimize soil disturbance, single end log suspension appears desirable. Access to harvest areas during and after treatment should be managed to minimize the potential for disturbance of grizzlies. Disturbance resulting from unmanaged road use could negate the habitat improvement value of man-made openings. (b) Sale area improvement Timber sale receipts, collected for post-sale area improvement (Knudsen-Vandenberg Act funds) should be used, when practical, to enhance the grizzly habitat quality of a logged area. Reforestation could be used to establish cover patches in cut blocks and supplemental cover screens for wet meadows, marshes, bogs, ponds, and other riparian areas. Revegetation with native grasses, forbs, and shrubs could be used to establish natural grizzly foods on appropriate, denuded sites other than open roads. Riparian areas could be restored, maintained, improved, or increased through revegetation and reforestation which could favorably affect		

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Timber and Fire Management (Continued)	water tables and result in stream stabilization and/or water spreading. (c) Managed burning Some grizzlies appear to derive much of their energy from the fruits of shrubs, including huckleberry and buffaloberry. Burns resulting from wildfires in this century are important producers of fruiting shrubs which provide grizzly food energy. Natural fire frequency appears necessary to maintain or expand burn components. Outside of wilderness areas, prescribed burning in habitat types which are not suitable for timber production could help to approximate a natural fire frequency. Fire management planning within wilderness areas, which would allow wildfires to burn within certain areas and conditions, would be valuable in improving habitat. Forest components known to have the greatest potential for improvement include the whitebark pine/subalpine fir (PIAL/ABLA), and subalpine fir/huckleberry (ABLA/VAGL and ABLA/VASC) habitat types. 5. Silviculture treatments will be designed to maintain or favor a mature, cone producing stand of whitebark pine where it exists within a sale. Generally, whitebark pine should not be marked for cutting unless it is expected to die before the next cutting entry.	5. Grizzly habitat enhancement through silvicultural treatment, sale area improvement or managed burning will not be done in close proximity to private property, resorts, campgrounds, summer homes, other recreation sites or areas which could bring grizzlies in contact with humans.	

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Timber and Fire Management (Continued)		6. All roads used for timber sale purposes will be single purpose roads only, and will be closed to public use not associated with timber sale operation and administration. Exceptions to this could be: (a) seasonal closures if data show grizzlies' use of the area to be seasonal and the road facilitates other important resource use that would not be possible without the road; (b) roads could be open for short periods, such as for hunting seasons and wood gathering, if human use is of short duration. 7. Timber sale operators and their employees will be informed of possible risks any time they are working in grizzly country. 8. Temporary living facilities for timber sale operators will be closely regulated. Edibles and/or garbage will not be allowed to accumulate or be available for grizzlies. Bear proof refuse containers and refuse collection to prevent overflow will be required. Requirements will be included in sale contracts. 9. In fire camps, measures will be taken to avoid attracting grizzlies. Proper food storage and refuse disposal will be required. No edibles or garbage will be left after suppression or management efforts have ended.	

MANAGEMENT SITUATION: 1

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Range Management	1. All livestock use on allotments, including recreation horse allotments, will be evaluated for its effect upon grizzlies and/or their habitat. USDA Forest Service procedures (1977) and Interagency Cumulative Effects Assessment (1986) may be used. 2. The allotment management plan will specify measures to meet agency grizzly management goals and objectives. These measures will be reflected in grazing permits and annual permittee plans. All permits will include a clause providing for cancellation or temporary cessation of activities if such are needed to resolve a grizzly-human conflict situation. Permittees' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding permits. 3. The allotment management plan will specify measures to protect, in time and space, food production areas vitally important to grizzlies (i.e., wet alpine and subalpine meadows, stream bottoms, aspen groves and other riparian areas) from conflicting and competing use by domestic livestock. These measures will be reflected in grazing permits and annual permittee plans. Degrees of protection could range from partial to full protection as indicated by evaluation. Measures could include, but not be limited to, closing grazing units either temporarily or permanently, exclusion fencing, changing on and off dates and setting livestock utilization rates at levels compatible with grizzly needs.	→ 1. → 2.	In cases of grizzly-human conflict or grizzly-livestock depredation, District Rangers in cooperation with State wildlife management agencies, will immediately identify the cause by determining where, when, why, and how the conflict occurred. If the problem bear is not determined to be a nuisance then correct the problem immediately by removing the man-related cause. Likely man-related causes are grizzly attractants and/or activities interfering with grizzly use of habitat. Attractants include foods and food odors associated with man, domestic livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, camps or other dwellings, game meat in possession of man, and domestic and/or transportation livestock. Interference activities are domestic livestock and/or any other livestock operation activity disrupting the grizzly's natural actvities in meeting its biological requirements (i.e., food use in wet areas with succulent, herbaceous vegetation which is scarce and thereby vitally important to the species especially during dry years or in late summer and autumn). Cause removal could involve simple activity modification or temporary or permanent activity curtailment in deference to seasonal or year-long grizzly use needs. If the problem bear is determined to be a nuisance and all reasonable measures have been taken to protect the bear and its habitat and a more natural grizzly population would be a likely result of its control, the U.S. Fish and Wildlife Service and state wildlife agencies will be requested to exercise control. See Appendix, page 51 for guidelines for determining grizzly nuisance status and for controlling nuisance grizzlies.

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Range Management (Continued)	Range condition class objective will be good to excellent in order to achieve range conditions favorable to grizzlies. 4. On sheep allotments where grizzly-livestock depredation has been authenticated, adjustments will be made for the primary purpose of grizzly bear conservation. The following options are available: (a) change the season of use, bedding practices, or grazing area to avoid known problem areas or other habitat important to grizzlies in time and space; (b) change the class of livestock from sheep to cattle if the range is suitable for cattle; or (c) remove all livestock and close the allotment. Vacant sheep allotments will not be restocked with sheep. 5. Grazing activities which will adversely affect grizzly bear populations and/or their habitat will not be permitted. Adverse population effects are population reductions and/or grizzly positive conditioning. Adverse habitat effects are reductions in habitat quantity and/or quality.	→ 4. 5. The allotment management plan will specify measures for the timely removal, destruction or treatment of livestock carcasses to avoid positive conditioning of grizzlies to livestock carrion as food. The intent is to reduce the likelihood of food association with domestic herds and reduce opportunities for depredation. Allotment plans will require that all human and prepared livestock and pet foods and human refuse associated with livestock operations be made unavailable to	

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Range Management (Continued)		grizzlies through proper storage, handling, and disposal. Edibles and/or garbage should not be allowed to accumulate; sight and/or smell of edibles and/or garbage should not be dominant (i.e., food should be canned or in other sealed containers) and edibles and/or garbage should be made unavailable (hung out of reach, secured in a solid-sided-bear-proof structure, burned or packed out). These measures will be specified in the annual permittee plan and grazing permits.	
Recreation Management	1. The following uses, developments or activities will be evaluated to determine their compatibility with grizzly habitat requirements: (a) proposed roads; (b) proposed trails (foot, horse, snowmobile and ski) and existing trails with frequent grizzly-human encounters; (c) proposed campgrounds, designated campsites, picnic areas, visitor information facilities and other facilities and structures for recreation or administrative use; (d) any or all in (c) above which exist and have a history of grizzly-human encounters; (e) existing and proposed special-use resorts, cabins, and outfitter pack and saddle stock grazing areas; (f) areas used for grazing by noncommercial recreation livestock; and (g) existing or proposed outfitter special use camps. Existing or proposed activities or uses which will adversely	→ 1.	In cases of grizzly-human conflict, District Rangers, in cooperation with State wildlife management agencies, will immediately identify the cause by determining where, why, when, and how the conflict occurred. If the problem bear is not determined to be a nuisance then correct the problem immediately by removing the man-related cause. Likely man-related causes are grizzly attractants and/or human activities interfering with grizzly use of habitat. Attractants include foods and food odors associated with man, livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, camps or other dwellings, game meat in the possession of man, and transportation and/or domestic livestock. Interference activities are those associated with recreation activities (transportation livestock grazing, camping, trail and road access, etc.) which disrupt grizzlies, grizzly habitat and/or grizzly use of habitat. Cause removal could involve simple activity modification or temporary or permanent activity curtailment or access closure. If the problem bear is determined to be a nuisance and all reasonable measures

MANAGEMENT SITUATION: 1 MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Recreation Management (Continued)	affect grizzly populations and/or their habitat will be terminated, removed, relocated or denied. Adverse population effects are population reductions and/or grizzly positive conditioning. Adverse habitat effects are reductions in habitat quantity and/or quality. 2. All recreation oriented EAs and concessionaire special use permits will specify measures to meet agency grizzly management goals and objectives. Permits will include a clause for cancellation or temporary cessation of activities if such are needed to resolve a grizzly-human conflict situation. Permittees' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding permits. 3. Special care will be taken to assure that camping and/or grazing activities will not degrade or compromise important grizzly use areas (forage sites, denning areas or travel routes).	→ 2. 3. In developed recreation sites, bear-proof garbage containers will be used with regularly scheduled garbage removal (to prevent overflow). All human and prepared livestock and pet food and human refuse will be made unavailable to grizzlies through proper storage, handling, and disposal as defined under Range Management, page 13 Carcasses of livestock and wildlife along major highways will be destroyed or removed immediately. To accomplish this in National Forests, District Rangers will notify State Highway Departments for removal of carcases of animals larger than deer.	have been taken to protect the bear and its habitat and a more natural grizzly population would be a likely result of its control, the U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control. See Appendix, page 51 for guidelines for determining grizzly nuisance status and for controlling nuisance grizzlies.

MANAGEMENT SITUATION: 1 MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Recreation Management (Continued)	4. Special care will be taken to assure that trail and road construction does not degrade important grizzly use areas.	4. For dispersed recreation use a "Pack-In-Pack-Out" refuse policy will be enforced. All human and prepared livestock and pet foods and human refuse will be made unavailable to grizzlies through proper storage, handling, and disposal. Carcasses of livestock and wildlife along roads and trails will be destroyed, removed or treated as soon as practical to repel grizzlies. 5. Open garbage dumps will not be permitted. 6. Resort operators under special use will use bear-proof garbage containers and make regular collections from all containers. 7. In areas where survivorship of individual grizzly bears is considered important for recovery or grizzly-human conflicts have been documented, all human and prepared livestock and pet foods and human refuse associated with outfitter operations will be made unavailable to grizzlies through proper storage, handling, and disposal. A "Pack-In-Pack-Out" refuse policy will be enforced. 8. In areas where survivorship of individual grizzly bears is considered important for recovery or grizzly-human conflicts have been documented, outfitters and all other hunters will be required to hang game meat at least 100 yards from sleeping area. Game meat more than 800 yards from sleeping area need not be hung. Meat will be hung so that the lowest portion of the carcass is suspended ten vertical feet	

MANAGEMENT SITUATION: 1 MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Recreation Management (Continued)		above the highest ground object and four horizontal feet from the nearest lateral object. Suspension ropes should be tied off ten feet or higher to trees or objects. 9. Hunters and outfitters will be encouraged to keep game meat in camp vicinity no longer than 48 hours. 10. No permits will be issued for the baiting of bears for purposes of sport hunting. 11. Use of established campsites will be adjusted as necessary to prevent a buildup of odors or improperly handled garbage which could attract grizzlies. 12. An information brochure summarizing recommended human conduct in grizzly country will be made available to the public. 13. Dogs will not be permitted. NP. 14. Feeding of bears will not be permitted. 15. Signs identifying grizzly range and recommended human conduct within, will be placed at trailheatd, developed campgrounds, and backcountry campsites. 16. Grizzly bear trapping sites will be temporarily closed to human use. 17. Trails and roads accessing areas with histories of grizzly-human encounters or areas where such encounters are probable or likely will be closed to human use either temporarily or permanently as necessary to reduce conflict potential.	

MANAGEMENT SITUATION: 1

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Minerals, Watershed, and Special Uses Management	1. Proposed activities referenced in application or proposals for (a) mineral, gas and oil, and geothermal exploration and development, (b) water developments, (c) new resorts and/or resort expansion, (d) all uses which require no special use permits (FSM 2708) which are likely to affect grizzlies and/or their habitat will be evaluated. USDA Forest Service (1977) procedures and Interagency Cumulative Effects Assessments (1986) may be used.	→ 1.	In cases of grizzly-human conflict, District Rangers in cooperation with State wildlife management agencies will immediately identify the cause by determining where, why, when, and how the conflict occurred. If the problem bear is not determined to be a nuisance then correct the problem immediately by removing the man-related cause. Causes are grizzly attractants and/or human activities interfering with grizzly use of habitat. Attractants include foods and food odors associated with man, livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, camps or other dwellings, game meat in possession of man, and transportation and/or work livestock. Interference activities are those associated with mining, watershed development, and special uses which disrupt grizzlies, grizzly habitat, and/or grizzly use of habitat. Cause removal could involve simple activity modification or temporary or permanent activity curtailment. If the problem bear is determined to be a nuisance and all reasonable measures have been taken to protect the bear and its habitat and a more natural grizzly population would be a likely result of its control, the U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control. See Appendix, page 51 for guidelines for determining grizzly nuisance status and for controlling nuisance grizzlies.
	2. All operating plans and special use permits will specify measures to meet agency grizzly goals and objectives. Permits will include a clause providing for cancellation or temporary cessation of activities if such are needed to resolve a grizzly-human conflict situation. Permittees', lessees', and operators' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding approved permits and plans.	→ 2.	
	3. Activities which adversely affect grizzly bear populations and/or their habitat will not be permitted. Adverse habitat effects could result from (a) land surface disturbances, (b) water table alterations, (c) reservoirs, rights-of-way, roads, pipelines, canals, transmission lines, or other structures, (d) increased human foods and (f) reduced availability of natural foods. Areas of vital importance to grizzlies are identified through the evaluation process.	3. Operation plans and special use permits will specify food storage and handling and garbage disposal standards. The general rule will be that all grizzly attractants, as defined under conflict resolution, will be made unavailable to grizzlies.	

MANAGEMENT SITUATION: 1 MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Minerals, Watershed, and Special Uses Management (Continued)	4. Operating plans and special use permits will include specific measures to protect and maintain grizzly habitat. Measures will address items a-f under 3 above, and others as necessary.	→ 4.	
	5. Mineral exploration and/or development activities will occur at a time or season when the area is of little or no biological importance to grizzlies.	5. Operation plans and special use permits will specify food storage and handling and garbage disposal standards. The general rule will be that all grizzly attractants, as defined under conflict resolution will be made unavailable to grizzlies.	
	6. All waste water associated with drilling operations will be disposed of in a manner approved by the District Ranger.	6. Temporary living facilities for exploration and/or development personnel may be on-site or at an alternative site designated by the District Ranger.	
	7. Integrity of aquatic system and riparian zones will be maintained. If these areas are polluted and/or damaged from activities associated with mineral exploration and/or development, lessee will assume full responsibility for rehabilitation and restoration of such areas.	7. Feeding of bears will not be permitted.	
	8. Roads, drilling pads, and other areas denuded from mineral exploration and development activities will be revegetated and reclaimed by lessee as directed by the District Ranger.	8. Roads constructed for mineral exploration and/or development will be single-purpose roads only and will be closed to public use not associated with mineral activities. Exception to this could be seasonal closure if data shows grizzly use of the area or habitat to be seasonal.	

GRIZZLY BEAR MANAGEMENT GUIDELINES

MANAGEMENT SITUATION: 2 MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Wildlife Management	1. Maintain close contact with research organizations to assure that current research data are being used in resource planning and administration affecting grizzlies.	→ 1.	Line officers will be provided with instructions for: (1) Fact finding, including (a) determination of where, why, when, and how the conflict occurred; (b) who was involved; (c) determination of status of problem bear (nuisance or nonnuisance) considering unnatural food dependency and individual bear history; see Appendix, page 51.
	2. Complete a biological assessment (may use USDA Forest Service (1977) procedures and Interagency Cumulative Effects Assessment (1986)) of existing or proposed land uses (under the Recreation, Range, Timber and Fire and Minerals, Watershed and Special Use Management Systems) which could affect grizzlies and/or their habitat.	→ 2.	(2) grizzly control, including names and phone numbers of personnel from State wildlife management agencies and the U.S. Fish and Wildlife Service, page 51. (3) live trapping; (4) tranquilization; (5) removal, including carcass disposal; (6) relocation, including maps of specific recommended relocation sites. Relocation plans with implications for National Parks, National Forests, and BLM lands will be reviewed and agreed upon by Park Service, Forest Service, and State wildlife personnel.
	3. Use cumulative effects analysis to assess spatial and temporal effects on habitat suitability and availability and mortality risk.	→ 3.	
	4. Initiate consultation prodedures with the U.S. Fish and Wildlife Service, as necessary, if the biological assessment results in a "may affect" determination. BLM should initiate consultation related to mineral leasing.	→ 4.	
	5. If grizzly population and habitat use is likely, and with full awareness of the Biological Opinion, recommend project or land use modifications which will provide compatibility between grizzly bears and other land uses uses without degrading conditions for grizzlies. If projects or land uses cannot be made compatible and grizzly needs are great (as in Management Situation 1) then recommend area be reclassified under Management Situation 1. If grizzly use does not constitute need for species survival and recovery then recommend proceeding with the activity.	→ 5.	

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Wildlife Management (Continued)	6. In necessary cases, specify, with full awareness of the Biological Opinion, measures to be taken within the different resource management systems which will protect and maintain grizzly bears and their habitat.	→ 6.	
	7. If applicable, specify feasible measures to be taken independent of other resource management systems, to improve grizzly bear management. For example, inform the public of agency grizzly bear management goals and objectives. Enlist their support in meeting these goals and objectives.	→ 7.	
	8. Monitor the application of these guidelines to assure they are properly and effectively used. Recommend improvement in guidelines and application procedures.	8. Identify grizzly-human conflict potential within the different resource management systems and recommend measures to minimize conflict potential.	
Timber and Fire Management	1. All proposed logging and burning activities will be evaluated for their effects upon grizzlies and/or their habitat. USDA Forest (1977) procedures and Interagency Cum. Effects Assessment (1986) may be used (NP burning) see Wildlife Management, above).	→ 1.	In cases of grizzly-human conflict, District Rangers in cooperation with State wildlife management agencies will immediately identify the cause by determining where, why, when, and how the conflict occurred. If the problem bear is not determined to be a nuisance then correct the problem immediately by removing, if feasible, the man-related cause. Likely man-related causes are grizzly attractants and/or human activities interfering with grizzly use of habitat. Attractants include foods and food odors associated with man, livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, camps or other dwellings, game meat in possession of man, and transportation and/or work livestock. Interference activities are those associated with logging or burning or fire control (camps) which disrupt grizzlies, grizzly habitat and/or grizzly use of habitat. Cause removal could involve
	2. Where grizzly population and habitat use is likely, timber sale and fire management EAs will specify agency grizzly management goals and objectives and measures to meet them. Contracts will include specific measures to protect, maintain and/or improve grizzly habitat and meet grizzly management goals and objectives. Timber sale contracts will include a clause providing for temporary cessation of activities if needed to resolve a grizzly-human conflict situation. Contractors' full	→ 2.	

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)	cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding contracts (NP burning). 3. Logging and/or fire management activities which will adversely affect grizzly bear populations and/or their habitat will, if feasible, be avoided. Adverse habitat effects are reductions in habitat quantity and/or quality. Adverse population effects are reductions and/or positive conditioning (NP burning). 4. Grizzly habitat improvement will generally not be a consideration. If it is, where indicated, habitat will be improved, if feasible, through vegetation manipulation. Silvicultural treatment, sale area improvement and managed burning are the methods to accomplish manipulation (NF, BLM). (a) Silvicultural treatment In some habitat types in grizzly range, timber harvest, especially selection and group selection cuts and small clearcuts with no dozer piling of slash and no mechanical soil scarification, produces important amounts of herbs and shrubs bearing fruits eaten by grizzlies. Production of grizzly food species in these cuts is often greater than in uncut sites in the same habitat types. This indicates that certain timber harvest practices can be used in some forest stands to increase their grizzly food value. It also indicates that grizzly	→ 3. 4. Grizzly habitat improvement will generally not be a consideration. If it is, where indicated, logging and burning activities will occur at a time or season when the area is of little or no biological importance to grizzlies. Where winter logging is infeasible, summer logging operations will be restricted in time and space to prevent disruptions of grizzly activities.	simple activity modification or temporary activity cessation. If the area does not warrant reclassification under Management Situation 1 and temporary activity cessation or activity modification is not possible or does not solve the problem or if the problem bear is determined to be a nuisance, the U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control. See Appendix, page 51 for guidelines for determining grizzly nuisance status and for controlling nuisance gruzzlies.

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)	habitat quality can probably be increased or enhanced by creating openings producing high quality grizzly food facilitating greater grizzly use in forest habitat types where normal grizzly use appears light. Types for possible treatment are subalpine fir/huckleberry, spruce/horsetail, subalpine fir/sweet-scented bedstraw, spruce/sweet-scented bedstraw, and subalpine fir/bluejoint. Others may be identified through future studies. Actual site specific vegetation responses will dictate the specific type of treatment and plant association to be treated. In general, grizzly habitat management in forested cover should provide a balance of all successful states on a sustained yield, even flow basis. Composition and coverage of grizzly food sources in clearcuts which have been broadcast burned and are without extensive soil scarification are comparable to those of natural burns. This indicates that such man-made openings can become the vegetative equivalents of burns, some of which produce important grizzly foods. Group selection cuts and 10-20 acre irregularly shaped clearcuts, in which prescribed fire slash removal is used to duplicate wildfire, appear more desirable for creating high grizzly food producing openings. Desirable clearcut		

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)	features include: (1) one or more leave or cover patches in cuts over 10 acres (2) minimum soil scarification in habitat types where soil disturbance impedes the reestablishment of grizzly foods (20 percent or less, preferably in a strip configuration), (3) slash disposal by spring broadcast burning in suitable habitat types and terrain, or possibly no slash disposal and (4) protection of hydric stream bottoms, wet meadows, marshes and bogs from soil disturbance, and security cover removal. Yarding methods should be designed to minimize soil disturbance, single end log suspension appears desirable. Access to harvest areas during and after treatment should be managed to minimize the potential for disturbance of grizzlies. Disturbance resulting from unmanaged road use could negate the habitat improvement value of manmade openings. (b) Sale Area Improvement Timber sale receipts, collected for post-sale area improvement (Knudsen-Vandenberg Act funds) should be used, when practical, to enhance the grizzly habitat quality of a logged area. Reforestation could be used to establish cover patches in cut blocks and supplemental cover screens for wet meadows, marshes, bogs, ponds, and other riparian areas. Revegetation with native grasses, forbs, and shrubs could be used to establish natural grizzly foods on appropriate		

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)	denuded sites other than open roads. Riparian areas could be restored, maintained, improved or increased through revegetation and reforestation which could favorably affect water tables and result in stream stabilization and/or water spreading. (c) Managed burning Some grizzlies appear to derive much of their energy from the fruits of shrubs, including huckleberry and buffaloberry. Burns resulting from wildfires in this century are important producers of fruiting shrubs which provide grizzly food energy. Natural fire frequency appears necessary to maintain or expand burn components. Outside of wilderness areas, prescribed burning in habitat types which are not suitable for timber production could help to approximate a natural fire frequency. Fire management planning whithin wilderness areas, which would allow wildfires to burn within certain areas and conditions, would be valuable in improving habitat. Forest components known to have the greatest potential for improvements include the whitebark pine/subalpine fir, and subalpine fir/huckleberry habitat types.		
	5. Silviculture treatments will be designed to maintain or favor a mature, cone producing stand of whitebark pine where it exists within a sale. Generally, whitebark pine should not be marked for cutting unless it is expected to die before the next cutting entry.	5. Grizzly habitat enhancement through silvicultural treatment, sale area improvement or managed burning will not be done in close proximity to private property, resorts, campgrounds, summer homes, other recreation sites or areas which could bring grizzlies in contact with humans.	

MANAGEMENT SITUATION: 2 MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)		6. Roads constructed for timber sale purposes will be closed to public use not associated with the timber sale operation and administration if the road provides access to an important grizzly use area or a Management Situation 1 area. Exceptions to this could be: (a) seasonal closures if data show grizzlies' use of the important habitat or Management Situation 1 area to be seasonal; (b) roads could be open for short periods, such as for hunting and wood gathering seasons, if human use is of short duration. 7. Timber sale operators and their employees will be informed of possible risks any time they are working in grizzly country. 8. Where grizzly occurrence is likely temporary living facilities for timber sale operators will be closely regulated. Edibles and/or garbage will not be allowed to accumulate or be available to grizzlies. Bear proof refuse containers and refuse collection to prevent overflow will be required. Requirements will be included in sale contracts. 9. In fire camps where grizzly occurence is likely, measures will be taken to avoid attracting grizzlies. Proper food storage and refuse disposal will be required. No edibles or garbage will be left after suppression or management efforts have ended.	

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Range Management	1. All livestock use on allotments, including recreation horse allotments, will be evaluated for its effect upon grizzlies and/or their habitat. USDA Forest Service procedures (1977) and Interagency Cumulative Effects Assessment (1986) may be used. 2. Where grizzly population and habitat use is likely, the allotment management plan will specify feasible measures to meet agency grizzly management goals and objectives. The measures will be reflected in grazing permits and annual permittee plans. All permits will include a clause providing for temporary cessation of activities if needed to resolve a grizzly-human conflict situation. Permittees' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding permits. 3. The allotment management plan will specify feasible measures to protect in time and space, food production areas important to grizzlies (i.e., wet alpine and subalpine meadows, stream bottoms, aspen groves and other riparian areas) from conflicting and competing use by domestic livestock. These measures will be reflected in grazing permits and annual permittee plans. Partial protection may be indicated by evaluation (FS, 1977 and Interagency Cumulative Effects Assessments (1986)). Measures could include, but not be limited to, closing grazing units temporarily, excluding fencing, changing on and off dates and setting livestock utilization rates at levels compatible with grizzly use. Range condition	→ 1. → 2. → 3.	In cases of grizzly-human conflict or grizzly-livestock depredation, District Rangers in cooperation with state wildlife management agencies, will immediately identify the cause by determining where, when, why, and how the conflict occurred. If the problem bear is not determined to be a nuisance then correct the problem immediately by removing, if feasible, the man-related cause. Likely man-related causes are grizzly attractants and/or activities interfering with grizzly use of habitat. Attractants include foods and food odors associated with man, domestic livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, camps or other dwellings, game meat in possession of man, and domestic and/or transportation livestock. Interference activities are domestic livestock and/or any other livestock operation activity disrupting the grizzly's natural activities in meeting its biological requirements (i.e., food use in wet areas with succulent, herbaceous vegetation which is scarce and therefore vitally important to the species especially during dry years or in late summer and autumn). Cause removal could involve simple activity modification or temporary activity cessation. If the area does not warrant reclassification under Management Situation 1 and temporary activity cessation or activity modification is not feasible or does not solve the problem or if the problem bear is determined is determined to be a nuisance, the U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control. See appendix, page 51 for guidelines for determining grizzly nuisance status and and for controlling nuisance grizzlies.

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Range Management (Continued)	objectives will be good to excellent in order to achieve range conditions favorable to grizzlies. 4. Grazing activities which will adversely affect grizzly bears and/or their habitat will, if feasible, be avoided. Adverse population effects are population reductions and/or grizzly positive conditioning. Adverse habitat effects are reductions in habitat quantity and/or quality. Options available involving sheep grazing are: (a) altering season of use and herding practices; (b) change livestock class from sheep to cattle; (c) temporary livestock removal.	→ 4. 5. For areas where grizzly occurrence is likely, allotment management plans will specify measures for the timely removal, destruction or treatment of livestock carcasses to avoid positive conditioning of grizzlies to livestock carrion as food. Allotment plans will require that all human and prepared livestock and pet foods and human refuse associated with livestock operations be made unavailable to grizzlies through proper storage, handling and disposal. These measures will be specified in the annual permittee plan and grazing permits.	
Recreation Management	1. The following uses, developments or activities will be evaluated (FS, 1977 and Interagency Cumulative Effects Assessment (1986)) to determine their compatibility with grizzly habitat requirements; (a) proposed roads;	→ 1.	In cases of grizzly-human conflict, District Rangers in cooperation with state wildlife management agencies, will immediately identify the cause by determining where, why, when, and how the the conflict occurred. If the problem

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Recreation Management (Continued)	(b) proposed trails (foot, horse, snowmobile and ski) and existing trails with frequent grizzly-human encounters; (c) proposed campgrounds, designated campsites, picnic areas, visitor information facilities and other facilities and structures for recreation or administrative use; (d) any or all in (c) above which exist and have a history of grizzly-human encounters; (e) existing and proposed special-use resorts, cabins, and outfitter pack and saddle stock grazing areas; (f) areas used for grazing by noncommercial recreation livestock; and (g) existing or proposed outfitter special use camps. Existing or proposed activities or uses which will adversely affect grizzly bears and/or their habitat will be, if feasible, avoided. Adverse population effects and population reductions and/or grizzly positive conditioning. Adverse habitat effects are reduction in habitat quantity and/or quality. 2. Where grizzly population and habitat use is likely, recreation oriented EAs and concessionaire special use permits will specify feasible measures to meet agency grizzly management goals and objectives. Permits will include a clause providing for temporary cessation of activities if needed to resolve a grizzly-human conflict situation. Permittees' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding permits.	→ 2.	bear is not determined to be a nuisance then correct the problem immediately by removing, if feasible, the man-related cause. Likely man-related causes are grizzly attractants and/or human activities interfering with grizzly use of habitat. Attractants include food and food odors associated with man, livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, camps or other dwellings, game meat in possession of man, and transportation and/or domestic livestock. Interference activities are those associated with recreation activities (transportation livestock grazing, camping, etc.) which disrupt grizzlies, grizzly habitat and/or grizzly use of habitat. Cause removal could involve simple activity modification or temporary activity cessation. If the area does not warrant reclassification under Management Situation 1 and temporary activity cessation or activity modification is not feasible or does not solve the problem or if the problem bear is determined to be a nuisance, the U.S. Fish and Wildlife Service and state wildlife agencies will be requested to exercise control. See appendix, page 51 for guidelines for determining grizzly nuisance status and and for controlling nuisance grizzlies.

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Recreation Management (Continued)		3. In developed recreation sites where grizzly occurrence is likely, bear-proof garbage containers will be used with regularly scheduled garbage removal (to prevent overflow). All human and prepared livestock and pet food and human refuse will be made unavailable to grizzlies through proper storage, handling, and disposal. Carcasses of livestock and wildlife along major highways will be destroyed or removed immediatly. To accomplish this in National Forests, District Rangers will notify State Highway Departments for removal of carcasses of animals larger than deer. 4. Where grizzly occurrence is likely in dispersed recreation areas, a Pack-In-Pack-Out refuse policy will be enforced. All human and prepared livestock and pet foods and human refuse will be made unavailable to grizzlies through proper storage, handling, and disposal. Carcasses of livestock and wildlife along roads and trails will, as soon as practical, be destroyed, removed, or treated to repel grizzlies. 5. Open garbage dumps will not be permitted. 6. Where grizzly occurrence is likely, resort operators under special use will use bear-proof garbage containers and make regular collections from all containers. 7. Where grizzly occurrence is likely and survivorship of individual grizzly bears is considered important for recovery or grizzly-human conflicts have been documented, all human and prepared livestock and pet foods and human refuse associated with out-	

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN
CONFLICTS Recreation Management (Continued)		fitter operations will be made unavailable to grizzlies through proper storage, handling, and disposal. A "Pack-In-Pack-Out" refuse policy will be enforced. 8. Outfitters and all other hunters will be encouraged to hang game meat at least 100 yards from sleeping areas. Game meat more than 800 yards from sleeping areas need not be hung. Meat should be hung so that the lowest portion of the carcass is suspended ten vertical feet above the highest ground object and four horizontal feet from the nearest lateral object. Suspension ropes should be tied off ten feet or higher to trees or objects. 9. Hunters and outfitters will be encouraged to keep game meat in the vicinity of camp no longer than 48 hours. 10. Permits for spring and autumn bear baiting for purposes of sport hunting will be issued with the following conditions: baits will not be permitted within one mile of any permitted camp, picnic ground, VIS center, occupied dwelling, private property, or within an area where grizzly occurrence is likely. Baits must be a minimum of two miles apart and at least one quarter mile from system trails and roads, and one quarter mile from permanent streams. 11. Where grizzly occurrence is likely, use of established campsites will be adjusted as necessary to prevent a buildup of odors or improperly handled garbage which could attract grizzlies.	

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Recreation Management (Continued)		12. An information brochure summarizing recommended human conduct in grizzly country will be made available to the public. 13. Dogs will not be permitted. NP. 14. Feeding of bears will not be permitted. 15. Signs identifying grizzly range and recommended human conduct within, will be placed at trailheads, developed campgrounds and backcountry campsites. 16. Grizzly bear trapping sites will be temporarily closed to human use. 17. Temporary trail and road closure is an option which can be applied to reduce grizzly-human conflict potential.	
Minerals, Watershed, and Special Use Management	1. Proposed activities referenced in applications or proposals for (a) mineral, gas and oil, and geothermal exploration and development, (b) water developments, (c) new resorts and/or resort expansion, (d) all other special uses (FSM 2700), and (e) all uses which require no special use permits (FSM 2708) which are likely to affect grizzlies and/or their habitat will be evaluated. FS 1977 and Interagency CEA (1986) procedures may be used. 2. Where grizzly population and habitat use is likely, operating plans and special use permits will specify feasible measures to meet agency grizzly management goals and objectives. Permits will include a clause providing	→ 1. → 2.	In cases of grizzly human conflict, District Rangers in cooperation with state wildlife management agencies, will immediately identify the cause by determining where, why, when, and how the conflict occurred. If the problem bear is not determined to be a nuisance then correct the problem immediately by removing, if feasible, the man-related cause. Likely man-related causes are grizzly attractants and/or human activities interfering with grizzly use of habitat. Attractants include food and food odors associated with man, livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, camps or other dwellings, game meat in possession of man, and transportation and/or work livestock. Interference activities are those associated with mining, watershed development and special uses which disrupt grizzlies, grizzly

MANAGEMENT SITUATION: 2

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Minerals, Watershed and Special Uses Management (Continued)	for temporary cessation of activities if needed to resolve a grizzly-human conflict situation. Permittees', operators', and lessees' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding approved permits and plans. 3. Activities which adversely affect grizzly bear populations and/or their habitat will, if feasible, be avoided. Adverse habitat effect could result from: (a) land surface disturbances, (b) water table alterations, (c) reservoirs, rights-of-way, roads, pipelines, canals, transmission lines, or other structures, (d) increased human presence, (e) reduced availability of natural foods. Important habits will be identified through the evaluation process (USFS, 1977). 4. Operating plans and special use permits will include specific feasible measures to protect and maintain grizzly habitat. Measures will address items a-e under 3 above, and others as necessary.	——————→ 3. 4. Where grizzly occurrence is likely, operation plans and special use permits will specify food storage and handling and garbage disposal standards. The general rules will be that all attractants, as defined under conflict resolution, will be made unavailable to grizzlies.	habitat and/or grizzly use of habitat. Cause removal could involve simple activity modification or temporary activity cessation. If the area does not warrant reclassification under Management Situation 1 and temporary activity cessation or activity modification is not possible or feasible or does not solve the problem or if the problem bear is determined to be a nuisance, the U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control. See Appendix, page 51 for guidelines for determining grizzly nuisance status and for controlling nuisance grizzlies.

MANAGEMENT SITUATION: 3

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Wildlife Management	Grizzly habitat needs are not a consideration.	1. Complete a biological assessment of existing or proposed land uses (under the Recreation, Range, Timber and Fire, and Minerals, Watershed and Special Uses Management Systems) which could affect grizzlies and/or their habitat. FS (1977) and Interagency CE Assessment (1986) procedures may be used. 2. Use cumulative effects analysis to assess spatial and temporal effects on mortality risk. 3. Initiate consultation procedures with the U.S. Fish and Wildlife Service, as necessary, if the biological assessment results in a "may affect" determination. BLM should initiate consultation related to mineral leasing. 4. Identify grizzly-human conflict potential within the different resource management systems and recommend measures to minimize conflict potential.	Line Officers will be provided with instructions for: (1) fact finding, including: (a) determination of where, why, when, and how the conflict occurred; (b) who was involved; (2) grizzly control, including names and phone numbers of personnel from State wildlife management agencies and the U.S. Fish and Wildlife Service, page 51; (3) live trapping; (4) tranquilization; (5) removal, including carcass disposal; (6) relocation, including maps of specific recommended relocation sites. Relocation plans with implications for both National Parks and National Forests will be reviewed and agreed upon by Park Service, Forest Service, and state wildlife management personnel.
Timber and Fire Management	Grizzly habitat needs are not a consideration.	1. Timber sale and fire management EAs and contracts will specify measures to meet agency grizzly management goals and objectives. Contractors will be required to cooperate fully in meeting these goals and objectives. 2. Where grizzly occurrence is likely, temporary living facilities for timber sale operators will be closely regulated. Edibles and/or garbage will not be allowed to accumulate or be available to grizzlies. Bear proof refuse containers and refuse collection to prevent overflow will be required. Requirements will be included in sale contracts.	In cases of grizzly-human conflicts, District Rangers in cooperation with state wildlife management agencies will immediately identify the cause by determining where, why, when, and how the conflict occurred. Correct the problem immediately by removing the man-related cause and controlling the problem bear. Likely man-related causes are grizzly attractants. Attractants include foods and food odors associated with man, livestock carrion, garbage, garbage dumps prepared livestock and pet foods, unsanitary camps ;or other dwellings and game meat in possession of man. The U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control. See page 51.

MANAGEMENT SITUATION: 3

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)		3. In fire camps, measures will be taken to avoid attracting grizzlies. Proper food storage and refuse disposal will be required. No edibles or garbage will be left after suppression Or management efforts have ended.	
Range Management	Grizzly habitat needs are not a consideration.	1. The allotment management plan will specify measures to meet agency grizzly management goals and objectives. The measures will be reflected in grazing permits and annual permittee plans. Permittees' full cooperation in meeting these goals and objectives will be a condition to their receiving and holding permits. 2. The allotment management plan will specify measures for the timely removal, destruction or treatment of livestock carcasses to avoid positive conditioning of grizzlies to livestock carrion as food. Allotment plans will also require that all human and prepared livestock and pet foods and human refuse associated with livestock operations be made unavailable to grizzlies through proper storage, handling, and disposal. These measures will be reflected in grazing permits and annual permittee plans.	In cases of grizzly-human conflict or grizzly livestock depredation, District Rangers in cooperation with state wildlife management agencies, will immediately identify the cause by determining where, when, why, and how the conflict occurred. Correct the problem immediately by removing the man-related cause and controlling the problem bear. Likely man-related causes are grizzly attractants. Attractants include foods and food odors associated with man, domestic livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, unsanitary camps or other dwellings, and game meat in possession of man. The U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control. Se page 51 .
Recreation Management	Grizzly habitat needs are not a consideration.	1. All recreation oriented EAs and concessionaire special use permits will specify measures to meet agency grizzly management goals and objectives. Permittees' full cooperation in meeting these goals and objectives will be a condition to their receiving and holding permits.	In cases of grizzly-human conflict, District Rangers in cooperation with state wildlife management agencies, will immediately identify the cause by determining where, why, when, and how the conflict occurred. Correct the problem immediately by removing the man-related cause and controlling the problem bear. Likely man-related causes are grizzly attractants. Attractants include food and food odors associated with man, live-

MANAGEMENT SITUATION: 3

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Recreation Management (Continued)		2. In developed recreation sites, where grizzly occurrence is likely, bear-proof garbage containers will be used with regularly scheduled garbage removal to prevent overflow. All human and prepared livestock and pet foods and human refuse will be made unavailable to grizzlies through proper storage, handling, and disposal. Carcasses of livestock and wildlife along major highways will be destroyed or removed immediately. To accomplish this in National Forests, District Rangers will notify State Highway Departments to remove carcasses of animals larger than deer. 3. For dispersed recreation use, a "Pack-In-Pack-Out" refuse policy will be enforced. All human and prepared livestock and pet foods and human refuse will be made unavailable to grizzlies through proper storage, handling, and disposal. Carcasses of livestock and wildlife along roads and trails will be destroyed, removed, or treated to repel grizzlies as soon as practical. 4. Where grizzly occurrence is likely, resort operators under special use will use bear-proof garbage containers and make regular collections from all containers. 5. Permits for spring and autumn bear baiting for purposes of sport hunting will be issued with the following conditions: baits will not be permitted within one mile of any permitted camp, picnic ground, VIS center, occupied dwelling, private	stock carrion, garbage, garbage dumps, prepared livestock and pet foods, unsanitary camps or other dwellings and game meat in possession of man. The U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control.

MANAGEMENT SITUATION: 3

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Recreation Management (Continued)		property or within an area where occurrence is likely. Baits must be a minimum of two miles apart and at least one quarter mile from system trails and roads and one quarter mile from permanent streams. 6. Feeding of bears will not be permitted. 7. Open garbage dumps will not be permitted. 8. Where grizzly occurrence is likely, all human and prepared livestock and pet foods associated with outfitter operations will be made unavailable to grizzlies through proper storage, handling, and disposal. A "Pack-In-Pack-Out" refuse policy will be enforced. 9. Outfitters and hunters will be encouraged to hang game meat at least 100 yards from sleeping areas. Game mean more than 800 yards from sleeping areas need not be hung. Meat should be hung so that the lowest portion of the carcass is suspended ten vertical feet above the highest ground object and four horizontal feet from the nearest lateral object. Suspension ropes should be tied off ten feet or higher to trees or objects. 10. Signs identifying grizzly range and recommended human conduct within, will be placed at trailheads, developed campgrounds and backcountry campsites. 11. Grizzly bear trapping sites will be temporarily closed to human use.	

MANAGEMENT SITUATION: 3

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Minerals Watershed, and Special Uses Management	Grizzly habitat needs are not a consideration.	1. All operating plans and special use permits will specify measures to meet agency grizzly management goals and objectives and methods of meeting objectives. Permittees' and operators' full coooperation in meeting goals and objectives will be a condition to their receiving and holding permits and plans. 2. Operation plans and special use use permits will specify food storage and handling and garbage disposal standards. The general rule will be that grizzly attractants, as defined under conflict resolution, will be made be made unavailable to grizzlies.	In cases of grizzly-human conflict, District Rangers in cooperation with state wildlife management agencies, will immediately identify the cause by determining, where, why, when, and how the conflict occurred. Correct the problem immediately by removing the man-related cause and controlling the problem bear. Likely man-related causes are grizzly attractants. Attractants include foods and food odors associated with man, livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, unsanitary camps or other dwellings and game meat in possession of man. The U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control.

MANAGEMENT SITUATION: 4

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Wildlife Management	1. Maintain close contact with research organizations to assure that current research data are being used in resource planning and administration affecting grizzlies.	→ 1.	Grizzly-human conflict resolution is not a consideration.
	2. Complete a biological assessment (may use FS (1977) and ICEA (1986) procedures of existing or proposed land uses (under Recreation, Range, Timber and Fire and Minerals, Watershed and Special Uses Management System) which could affect grizzlies and/or their habitat.	→ 2.	
	3. Use cumulative effects analysis to assess spatial and temporal effects on habitat suitability and availability.	→ 3.	
	4. Initiate consultation procedures with the U.S. Fish and Wildlife Service, as necessary, if the biological assessment results in a "may affect" determination. BLM should initiate consultation related to mineral leasing.	→ 4.	
	5. With full awareness of the Biological Opinion, recommend project or land use modifications which would provide compatibility between grizzly bears and other land uses without degrading conditions for potential grizzly use. If projects or land uses cannot be made compatible, recommend project or use elimination.	→ 5.	
	6. With full awareness of the Biological Opinion, specify measures to be taken within the different resource management systems which will protect, maintain, and improve potential grizzly bear habitat.	→ 6.	

MANAGEMENT SITUATION: 4

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Wildlife Management (Continued)	7. With full awareness of the Biological Opinion, specify measures to be taken independent of other resource management systems, to improve conditions for potential grizzly populations and habitat. For example, inform the public of National Forest and National Park grizzly bear management goals and objectives. Enlist their support in meeting these goals and objectives.	→ 7.	
	8. Monitor the application of these guidelines to assure they are properly and effectively used. Recommend improvements in guidelines and application procedures.	8. Identify grizzly-human conflict potential within the different resource management systems and recommend measures to minimize conflict potential.	
Timber and Fire Management	1. All proposed logging and burning activities will be evaluated for their likely effects upon potential grizzly populations and/or their habitat. FS (1977) and Interagency CEA (1986) procedures may be used (NP burning).	→ 1.	Grizzly-human conflict resolution is not a consideration.
	2. Timber sale and fire management EAs will specify agency grizzly management goals and objectives and measures to meet them. Contracts will include specific measures to protect, maintain and/or improve (NF, BLM) grizzly habitat and meet grizzly management goals and objectives. Contractors' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding contracts (NP burning).	→ 2.	
	3. Logging and/or fire management activities which will adversely affect potential grizzly bear populations and/or their habitat	→ 3.	

MANAGEMENT SITUATION: 4

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)	will not be permitted. Adverse population effects would be population reductions and/or grizzly positive conditioning. Adverse habitat effects would be reductions in habitat quantity and/or quality (NP burning). 4. If introduction of grizzlies is likely, grizzly habitat will be improved through vegetation manipulation. Silvicultural treatment, sale area improvement and managed burning are the methods to accomplish manipulation (NF, BLM). (a) Silvicultural treatment In some habitat types in grizzly range, timber harvest, especially selection and group selection cuts and small clearcuts with no dozer piling of slash and no mechanical soil scarification, produces important amounts of herbs and shrubs bearing fruits eaten by grizzlies. production of grizzly food species in these cuts is often greater than in uncut sites in the same habitat types. This indicates that certain timber harvest practices can be used in some forest stands to increase their grizzly food value. It also indicates that grizzly habitat quality can probably be increased or enhanced by producing high quality grizzly foods in openings in forest habitat types where food production and potential grizzly use is lower. Habitat types for possible treatment are subalpine fir/huckleberry, spruce/horsetail, spruce/ sweetscented bedstraw, sub-	4. Grizzly habitat enhancement through silvicultural treatment, sale area improvement or managed burning will not be done in close proximity to private property, resorts, campgrounds, summer homes, other recreation sites or areas which could bring grizzlies in contact with humans.	

MANAGEMENT SITUATION: 4

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)	alpine fir/sweetscented bedstraw, and subalpine fir/bluejoint. Others may be identified through future studies. Actual site specific vegetation responses will dictate the specific type of treatment and plant association to be treated. In general, grizzly habitat management in forested cover should provide a balance of all successional stages on a sustained yield, even-flow basis. Composition and coverage of grizzly food sources in clearcuts which have been broadcast burned and are without extensive soil scarification are comparable to those of natural burns. This indicates that such man-made openings can become the vegetative equivalents of burns, some of which produce important grizzly foods. Group selection cuts and 10-20 acre irregularly shaped clearcuts in which prescribed fire slash removal is used to duplicate wildfire, appear desirable for creating high grizzly food producing openings. Desirable clearcut features include: (1) one or more leave or cover patches in cuts over 10 acres (2) minimum soil scarification in habitat types where soil disturbance impedes the reestablishment of grizzly foods (20 percent or less, preferably in a strip configuration), (3) slash disposal by spring broadcast burning in suitable habitat types and terrain, or possibly no slash disposal and (4)		

MANAGEMENT SITUATION: 4

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
	protection of hydric stream bottoms, wet meadows, marshes, and bogs from soil disturbance and security cover removal. Yarding methods should be designed to minimize soil disturbance, single end log suspension appears desirable. Access to harvest areas during and after treatment should be managed to minimize the potential for disturbance of grizzlies. Disturbance resulting from unmanaged road use could negate the habitat improvement value of man-made openings.		
	(b) Sale area improvement Timber sale receipts, collected for post-sale area improvement (Knudsen-Vandenberg Act funds) should be used, when practical, to enhance the grizzly habitat quality of a logged area. Reforestation could be used to establish cover patches in cut blocks and supplement cover screens for wet meadows, marshes, bogs, ponds, and other riparian areas. Revegetation with native grasses, forbs, and shrubs could be used to establish natural grizzly foods on appropriate, denuded sites other than open roads. Riparian areas could be restored, maintained, improved, or increased through revegetation and reforestation which could favorably affect water tables and result in stream stabilization and/or water spreading.		
	(c) Managed burning Some grizzlies appear to derive much of their energy from the fruits of shrubs,		

MANAGEMENT SITUATION: 4

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)	including huckleberry and buffaloberry. Burns resulting from wildfires in this century are important producers of producers of fruiting shrubs which provide grizzly food energy. Natural fire frequency appears necessary to maintain or expand burn components. Outside of wilderness areas, prescribed burning in habitat types which are not suitable for timber production could help to approximate a natural fire frequency. Fire management planning within wilderness areas, which would allow wildfires to burn within certain areas and conditions, would be valuable in improving habitat. Forest components known to have the greatest potential for improvement include whitebark pine/subalpine fir, and subalpine fir/huckleberry habitat types.		
	5. Silviculture treatments will be designed to maintain or favor a mature cone producing stand of whitebark pine where it exists within a sale. Generally, whitebark pine should not be marked for cutting unless it is expected to die before the next cutting entry.	→ 5.	
		6. All roads used for timber sale purposes will be single purpose roads only, and will be closed to public use not associated with the timber sale operation and administration if the road provides access to a Management Situation 1 area. Exceptions to this could be: (a) Seasonal closures if data show grizzlies' use of the Management Situation 1 area to be seasonal.	

MANAGEMENT SITUATION: 4 MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Timber and Fire Management (Continued)		(b) Roads could be open for short periods, such as for big game seasons in the fall, if human use is of short duration.	
Range Management	1. All livestock uses on allotments, including recreation horse allotments, will be evaluated for its effect upon grizzly habitat. USDA FS (1977) and Interagency CEA (1986) procedures may be used.	→ 1.	Grizzly-human conflict resolution is not a consideration.
	2. The allotment management plans will specify measures to meet agency grizzly management goals and objectives. These measures will be reflected in grazing permits and annual permittee plans. Permittees' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding permits.	→ 2.	
	3. The allotment management plan will specify measures to maintain food production areas of potential importance to grizzlies (i.e., wet alpine and subalpine meadows, stream bottoms, aspen groves and other riparian areas). These measures will be reflected in grazing permits and annual permittee plans. Measures could include, but not be limited to, closing grazing units temporarily, excluding fencing, and setting livestock utilization rates at levels compatible with potential grizzly needs. Range condition class objectives will be good to excellent to achieve range conditions favorable to grizzlies.	→ 3.	

MANAGEMENT SITUATION: 4

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
	4. Grazing activities which would adversely affect grizzly bear populations and/or their habitat will not be permitted. Adverse population effects would be population reductions and/or grizzly positive conditioning. Adverse habitat effects would be reductions in habitat quantity and/or quality.	→ 4.	
Recreation Management	1. The following uses, developments or activities will be evaluated (FS (1977), Interag. CEA (1986) to determine their compatibility with grizzly habitat requirements: (a) proposed roads; (b) proposed trains (foot, horse, snowmobile, and ski); (c) proposed campgrounds, designated campsites, picnic areas, visitor information facilities and other facilities and structures for recreation or administrative use; (d) existing and proposed special-use resorts, cabins, and outfitter pack and saddle stock grazing areas; (e) areas used for grazing non-commercial recreation livestock, and; (f) existing or proposed outfitter special use camps. Existing or proposed activities or uses which would adversely affect grizzly populations and/or their habitat will be terminated, removed, relocated or denied. Adverse population effects would be population reductions and/or grizzly positive conditioning. Adverse habitat effects would be reductions in habitat quantity and/or quality.	→ 1.	Grizzly-human conflict resolution is not a consideration.

MANAGEMENT SITUATION: 4

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Recreation Management	2. All recreation oriented EAs and concessionaire special use permits will specify measures to meet agency grizzly management goals and objectives. Permittees' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding permits.	→ 2.	
	3. Special care will be taken to assure that camping and/or grazing activities will not degrade or compromise important potential grizzly use areas (forage sites, denning areas or travel routes).	→ 3.	
	4. Special care will be taken to assure that trail and road construction does not degrade important potential grizzly use areas.	→ 4.	
Minerals, Watershed, and Special Uses Management	1. Proposed activities referenced in applications or proposals for (a) mineral, gas and oil, and geothermal exploration and development, (b) water developments, (c) new resorts and/or resort expansion, (d) all other special uses (FSM 2700), and (e) all uses which require no special use permits (FSM 2708) which would likely affect grizzlies and/or their habitat will be evaluated (FS (1977), Interagency CE Assessment (1986)) procedures	→ 1.	Grizzly-human conflict resolution is not a consideration.
	2. All operating plans and special use permits will specify measures to meet agency grizzly management goals and objectives. Permittees' and operators' full cooperation in meeting grizzly management goals and objectives will be a condition to their receiving and holding approved permits and plans.	→ 2.	

MANAGEMENT SITUATION: 4

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
Minerals, Watershed, and Special Uses Management (Continued)	3. Activities which would adversely affect grizzly bear populations and/or their habitat will not be permitted. Adverse population effects could result from: (a) land surface disturbances, (b) water table alterations, (c) reservoirs, rights-of-way, roads, pipelines, canals, transmission lines, or other structures, (d) increased human presence, (e) loss of natural foods, and (f) reduced availability of natural foods. Areas of vital potential importance are identified through the evaluation process (USDA Forest Service, 1977).	→ 3.	
	4. Operating plans and special use permits will include specific measures to protect and maintain potential grizzly habitat. Measures will address items a-f under 3 above, and others as necessary.	→ 4.	

MANAGEMENT SITUATION: 5

MGMT. SYSTEM OR ACTIVITY	MAINTAIN AND IMPROVE HABITAT	MINIMIZE GRIZZLY-HUMAN CONFLICT POTENTIAL	RESOLVE GRIZZLY-HUMAN CONFLICTS
All Management Systems and Activities	Grizzly habitat needs are not a necessary consideration. Maintenance of suitable and available but unoccupied habitat is an option. If taken, direction under MAINTAIN AND IMPROVE HABITAT, SITUATION 4, for all management systems and activities would apply.	Minimizing grizzly-human conflict is not a consideration. In the rare event that grizzlies occur in the area, no action is necessary unless conflict is imminent. If conflict is imminent, proceed as indicated under conflict resolution.	If grizzly-human conflict occurs, District Rangers in cooperation with State wildlife management agencies will immediately identify the cause by determining where, why, when, and how the conflict occurred. Correct the problem immediately by removing the man-related cause and controlling the problem bear. Likely man-related causes are grizzly attractants. Attractants include food and food odors associated with man, livestock carrion, garbage, garbage dumps, prepared livestock and pet foods, unsanitary camps or other dwellings and game meat in possession of man. The U.S. Fish and Wildlife Service and State wildlife agencies will be requested to exercise control. See page 51.

PLAN FOR DETERMINING GRIZZLY BEAR NUISANCE STATUS and FOR CONTROLLING NUISANCE GRIZZLY BEARS

I. Preamble

THE INTERAGENCY GRIZZLY BEAR COMMITTEE RECOGNIZES THAT:

WHEREAS, it is mutually recognized that it is necessary to:

A. Comply with Section 7 of the Endangered Species Act which requires Federal agencies to protect the grizzly bear (Ursus arctos horribilis), a threatened species, and its habitat.

B. Comply with Fish and Wildlife Service rules and regulations relating to the removal of nuisance bears (FEDERAL REGISTER, Vol. 40, No. 145 - Monday, July 28, 1975).

C. Comply with Fish and Wildlife Service rules and regulations relating to interagency cooperation under the Endangered Species Act with emphasis on formal consultation related to management actions affecting grizzly bears (FEDERAL REGISTER, Vol. 43, No. 2 - Wednesday, January 24, 1978).

D. Identify the responsibilities of the respective agencies for determining grizzly bear nuisance status and for controlling nuisance grizzly bears.

E. Provide a mutually developed and mutually acceptable plan which contains a uniform interagency approach for management of grizzly bears and their habitat and for determining grizzly bear nuisance status and for controlling nuisance grizzlies.

F. Provide for an Aggregate Consultation on all management actions related to grizzly bears specified in the IGBC Guidelines, including nuisance bear control measures.

NOW, THEREFORE, in consideration of the above premises, the parties hereto agree as follows:

A. To accept the "Guidelines" as the primary source for management decisions involving grizzly bears and their habitat and not to determine grizzly bear nuisance status or control nuisance bears without assistance of other appropriate parties to the agreement.

B. The Forest Service, as the public land administering agency on National Forests, shall:

Coordinate all actions and participate in decisions relating to the determination of grizzly bear nuisance status and controlling nuisance grizzly bears on National Forest lands. Coordination means requesting assistance and participation of the Fish and Wildlife Service, the Departments, and, in some cases, the Park Service.

C. The Fish and Wildlife Service, as advisor to the Federal land management agencies in matters pertaining to fish and wildlife management, shall:

In those cases when the Fish and Wildlife Service is aware of the grizzly-human conflict situation first, initiate the coordination process by notifying the Departments and the Federal land management agency and participate in the determination of grizzly bear nuisance status, and shall provide necessary expertise required for the control of nuisance grizzly bears.

D. The Departments as the agencies responsible for the management of the States' wildlife resources, shall:

In those cases when the Departments are aware of the grizzly-human conflict situation first, initiate the coordination process by notifying the appropriate Federal land management agency and the Fish and Wildlife Service and otherwise participate in the determination of grizzly bear nuisance status and shall contribute necessary expertise, operational services or other acceptable methods for the control of nuisance grizzly bears.

E. The Park Service, as the agency responsible for the management and administration of all resources in the National Parks shall:

Govern the taking of grizzly bears in National Parks. Park Service personnel shall be invited to participate in the determination of grizzly bear nuisance status and to participate in the relocation of those bears judged to be potentially suitable for relocation into National Parks.

F. It is Mutually Agreed and Understood By and Among the Said Parties that:

1. All IGBC agencies will exchange phone contact lists of designated representatives assigned to implement these provisions and to decide on nuisance bear status.

2. All IGBC agencies will make an effort to have permittees notify the land management agency of all grizzly bear associated problems and to notify the respective State wildlife agencies when property damage occurs.

3. Relocations of bears between grizzly bear ecosystems will be done in accordance with State and Federal laws, regulations, and policy.

4. Amendments to this Plan may be made at any time with written concurrence of the IGBC and appropriate consultation.

5. Each IGBC agency and the Bureau of Indian Affairs (BIA) (Tribes) will coordinate its respective grizzly bear control procedures in full accordance with this Plan.

6. This Plan will become effective on the publication of the final notice in the Federal Register on the Interagency Grizzly Bear Guidelines. This Plan shall automatically be renewed annually and remain in force until revoked or amended.

7. Any IGBC agency may terminate participation in this Plan upon 120 days written notice to each of the other agencies.

8. The attached Plan provides operational guidelines for determining grizzly bear nuisance status and for controlling nuisance grizzly bears in the conterminous United States. Handling and control of nuisance grizzly bears will be governed by the grizzly bear special rule (50 CFR 17.40) and per discussions and/or resulting agreements between IGBC member agencies and APHIS (Animal and Plant Health Inspection Sevice) animal damage control.

9. The "Guidelines and a "Plan" have been submitted to the Fish and Wildlife Service as a formal aggregate consultation since the projects, activities, and programs are logically grouped, their effects should be similar and such an aggregate consultation should greatly economize consultation activities related to and required for grizzly management.

The purpose of this document is to:

1. Document management direction agreed upon by participating agencies with respect to determination of grizzly bear nuisance status, and the capture, translocation, release and/or disposal of nuisance grizzly bears.

2. Guide managers in making rapid, effective, and responsible decisions and initiating action regarding grizzly bear control actions.

II. Guidelines for Determining Grizzly Bear Nuisance Status

These guidelines apply to the Management Situation Areas defined in Interagency Grizzly Bear Guidelines. In Management Situations Areas 1 and 2, grizzlies must be determined to be a nuisance by specific criteria before they can be controlled. In Situation Areas 3 and 5, any grizzly involved in a grizzly-human conflict situation is considered a nuisance and will be controlled. Control must be compatible with Grizzly Bear Recovery Plan objectives for limiting man-caused grizzly mortality and with Federal and State laws and regulations.

A grizzly bear may be determined to be a nuisance if any or all of the following conditions apply:

Condition A. The bear causes significant depredation to lawfully present livestock or uses unnatural food materials (human and livestock foods, garbage, home gardens, livestock carrion, and game meat in possession of man) which have been reasonably secured from the bear resulting in conditioning of the bear or significant loss of property.

Condition B. The bear has displayed aggressive (not defensive) behavior toward humans which constitutes a demonstrable immediate or potential threat to human safety and/or a minor human injury resulted from a human/bear encounter.

Condition C. The bear has had an encounter with people resulting in a substantial human injury or loss of human life.

The following are considerations in determining grizzly nuisance status under Condition A:

Unnatural foods were reasonably secure from grizzlies. Reasonably secure means all steps were taken to comply with guideline objectives (a) Maintain and Improve Habitat and (b) Minimize Grizzly-Human Conflict Potential. The following are examples of reasonably secure conditions:

(1) sight and/or smell of edibles and/or garbage was not dominant (i.e., food was canned or in other sealed containers) and edibles and/or garbage was made unavailable (hung out of reach or secured in a solid-sided-bear-proof structure). Livestock use did not occur in habitat components critically important to grizzlies in time or space;

(2) livestock and wildlife carcasses were removed, destroyed or treated so that the material would not reasonably be expected to attract grizzlies.

(3) game meat was stored at least 100 yards from any sleeping area;

(4) no baits were placed for purposes of sport hunting black bears, nor did any artificial feeding of bears occur.

The following are considerations in determining grizzly nuisance status under Condition B:

The bear has displayed aggression toward man. Sound evidence must be available to establish that the bear acted aggressively without provocation (not defensively), and that such behavior constituted a threat to human safety and/or a minor human injury occurred as a result of a nondefensive grizzly attack.

The following are considerations in determining grizzy nuisance status under Condition C:

An encounter with people which resulted in a serious human injury or loss of human life. A bear that is involved in an accidental encounter with people, defense of young, or in a provoked attack (the bear acted defensively not aggressively) which results in a minor human injury should not be considered a nuisance under this condition.

If information is insufficient to clearly establish the above requisites under Conditions A, B, and C, then the involved bear(s) probably should not be determined a nuisance under that condition. The criteria in Table 1 should be used to guide control actions.

Preventive Action

Certain specific grizzlies have known behavioral patterns, which, when combined with location, time and other factors, indicate that an incident is highly probable. In such situations, direct preventive action designed to safely remove the bear(s) from the situation (prior to an occurrence which would result in nuisance status and possible loss of the bear(s) to the ecosystem) can be implemented regardless of the Management Situation involved. Human activities must be in compliance with applicable guidelines to minimize potential for grizzly-human conflicts for that Management Situation. Control actions should be designed to capture and remove the specific target bear(s).

In other situations, a bear may move into a visitor use or residential area without causing an incident, but there is indication that due to its persistent use of the area, it may become overly-familiar with humans and may become habituated. The animal may be relocated if a suitable release site (free of circumstances similar to the capture site) is available. This is an action to prevent a possible incident or habituation of the bear. It does not count as an offense when determining the disposition of the bear (using Table 1), should the bear be recaptured in a future control action.

III. Grizzly Bear Control Action

1. If a grizzly bear is not determined to be a nuisance after consideration of criteria in Section II, no control action will be initiated.

2. Capture of nuisance grizzly bears outside National Parks is the primary responsibility of the State Fish and Game Agency in conjunction with the U.S. Fish and Wildlife Service. The National Park Service is responsible for bear capture within National Parks. Figure 1 is a schematic diagram showing the sequence of notification and the decision process which will be used in all grizzly control actions. Data forms for recording information about the captured bear(s) and the control action are provided in the Appendix. Nuisance bear forms should be completed by the on-site official and forwarded to the Grizzly Bear Recovery Coordinator for subsequent distribution.

3. Nuisance grizzlies that are sick or injured beyond a point where natural recovery is likely will be removed from the population. Other nuisance grizzlies will be controlled according to the guidelines in Table 1.

4. After a bear has been captured during a control action, the decision on where to relocate the bear or whether to kill it must be made within 24 hours of its capture. The relocation must be made as expeditiously as possible after the disposition of the bear is determined. Bears will not be held in a snare but will be immobilized, marked, and placed in an appropriate holding facility (can be a culvert trap).

   With due consideration of mortality risk associated with immobilization, grizzly bears released should be marked with numbered ear tags, lip tatoo, and functioning radio transmitters. Monitoring will be a cooperative effort between State and Federal agencies. On-site release may be

accomplished if the bear taken is: (a) determined not to be a nuisance bear or; (b) on a first offense when the bear cannot be relocated because of terrain, weather, or inaccessibility to a relocation site. Females with cubs, where relocation is identified in the above table, will be released on-site if relocation is not feasible for previously stated reasons or if the cubs cannot also be caught and relocated with the female. An on-site release will not be conducted in developed areas. On-site releases will be accomplished after approval of the land management agency if the release is monitored in such a way to determine its success or failure with respect to bear survival and conflict resolution.

5. If a bear is to be killed, the action will be completed only by authorized State or Federal or Tribal employees. A grizzly bear mortality report form should be completed and the carcass forwarded to the Montana Department of Fish, Wildlife and Parks lab in Bozeman, Montana, for examination and subsequent disposition.

6. The initiating agency may "take back" a relocated bear, according to case-by-case agreements.

7. The State Fish and Game Regional Office will be the principal coordination point for all control actions, unless specified otherwise in the initial discussions on a particular incident.

The public and news media are extremely interested in all operations involving grizzly bears. To insure that they receive the proper information, it is critical that information be shared between all involved agencies in an accurate and timely manner. Planned news releases will be the responsibility of the State Fish and Game agency in close consultation with the administering land management agency (or Tribe) and the Grizzly Bear Recovery Coordinator.

Table 1. GUIDELINES FOR GRIZZLY BEAR CONTROL ACTION
(See Footnotes)

TYPE OF GRIZZLY	NO OFFENSE OFFENSE	TYPE OF PROBLEM CONDITION A 1st	CONDITION A 2nd	CONDITION A 3rd	CONDITION B 1st	CONDITION B 2nd	CONDITION C 1st
Females							
Orphaned Cub	***RLS/REL*						
Cub		REL	REL	REM**	REL	REM	REM
Yearling		REL	REL	REM	REL	REM	REM
Subadult		REL	REL	REM	REL	REM	REM
Prime Adult with Young		REL	REL	REM (Adult)	REL	REM (Adult)	REM (Adult)
Old Adult***		REL	REM	--	REM	--	REM
Old Adult with Young		REL	REL	REM (Adult)	REL	REM (Adult)	REM (Adult)
Males							
Orphaned Cub	***RLS/REL*						
Cub		REL	REL	REM	REL	REM	REM
Yearling		REL	REM	--	REM	--	REM
Subadult		REL	REM	--	REM	--	REM
Prime Adult		REL	REM	--	REM	--	REM
Old Adult		REM		--	REM	--	REM

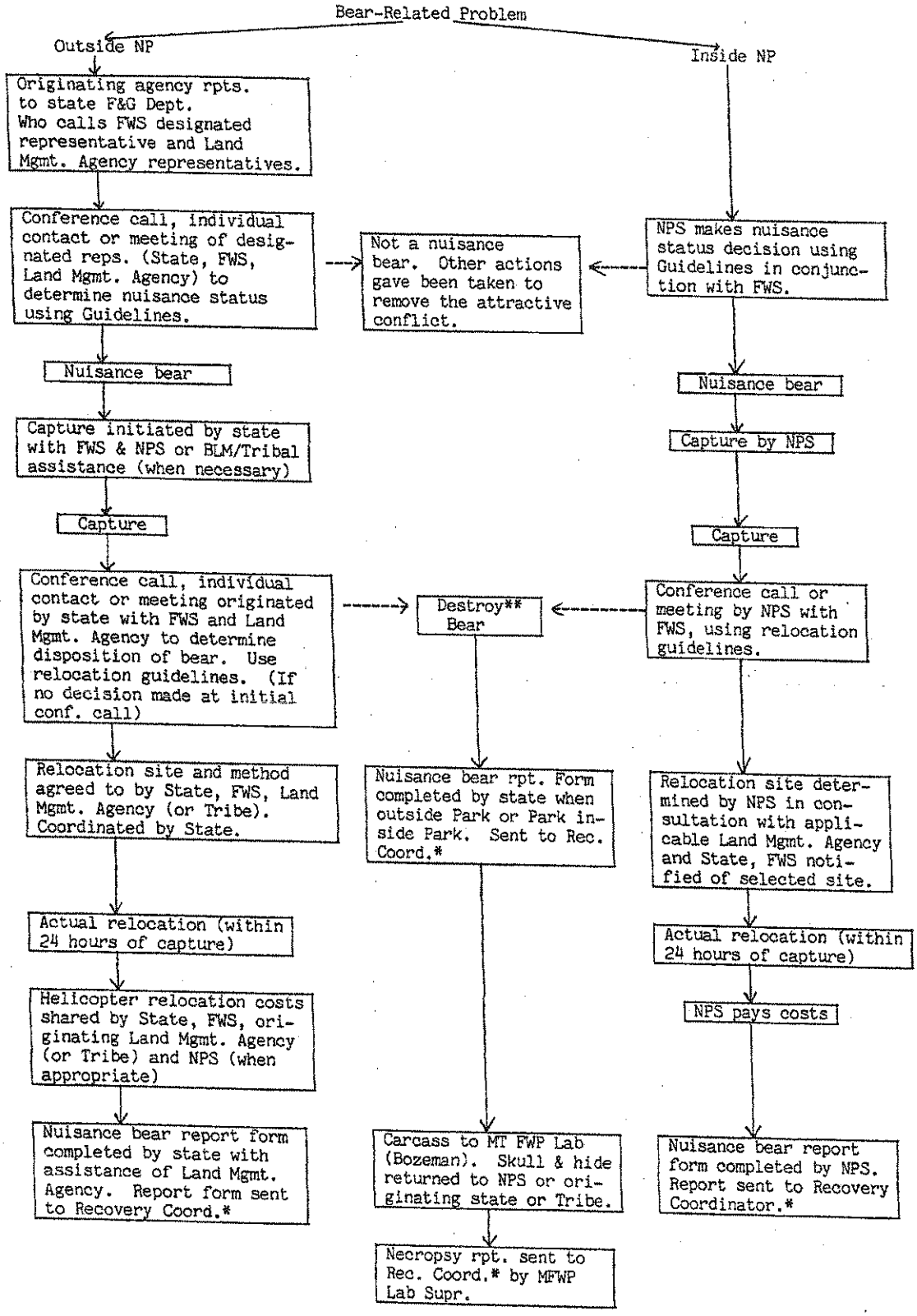
*REL - RELOCATE **REM - REMOVE FROM POPULATION ***RLS - RELEASE ON SITE
(Nuisance grizzlies that are sick or injured beyond a point where natural recovery is likely will be removed.)

Cub - Young of the Year
Yearling - 12 to 24 months old
Subadult - 24 to 48 months old
Young - Cub, yearling, or subadult accompanying mother
Old - Indicates advanced age and deteriorated physical state, indicators are tooth wear and physical appearance

#Grizzly Bear Recovery Coordinator, USFWS, HS 105D, University of Montana, Missoula, MT 59812

FIGURE 1

ACTION PROCEDURES FOR DETERMINING BEAR NUISANCE STATUS AND MANAGEMENT ACTION



*Recovery Coordinator distributes report to agency representatives in Ecosystem.

**Alternative may include transport to a zoo or research. Decision made at second phone call.

*Grizzly Bear Recovery Coordinator, USFWS, US 105D, University of MT, Missoula, MT 59812

FIGURE 2

ACTION PROCEDURES IN CASES OF GRIZZLY-HUMAN CONFLICT

All grizzly bear habitat

1. All incidents of grizzly-human conflict will be investigated immediately and a factual and detailed report (answering who, what, when, why, where and how) submitted to the line officer. In case of human death, notify the County Sheriff and County Coroner. In case of grizzly death, notify the U.S. Fish and Wildlife Service and the appropriate State wildlife management agency.

2. State wildlife management agencies and/or the U.S. Fish and Wildlife Service, National Park Service, Tribe will handle nuisance grizzlies.

3. County sheriffs will have primary responsibility for backcountry rescue outside National Parks and Indian Reservations.

4. The site of an incident will be closed immediately to human use until the investigation is complete and the problem solved or corrected. This closure is the responsibility of the managing agency.

5. All incidents resulting in serious human injury or death will be investigated by an interagency team with members from the county law enforcement agency, State wildlife management agency, land management agency, U.S. Fish and Wildlife Service, NPS and appropriate outside experts as necessary.

6. News releases involving grizzly-human conflict incidents will be coordinated through all concerned agencies.

Further, in National Parks,

7. All grizzly-human conflicts will be investigated and a factual and detailed bear incident report submitted to the Superintendent's Office. In incidents where injury and/or property damage have occurred, the investigating officer's report will be supplemented when possible by the statements of witnesses to the incident. All incidents of grizzly inflicted human death will be investigated by an interagency investigation team (as in No. 5).

8. All management actions involving bears will be reported by telephone to the Bear Management Office/Resource Management Office.

9. All grizzly bear sightings will be recorded in the station log and telephoned daily to the Bear Management Office/Resource Management Specialist. Information shall include observer, data, location, time, number, activity, and if possible, sex, age class, and individual description.

IV. Relocation Sites

The proper selection of a relocation site is dependent upon many factors including age, sex, history of the bear, type of offense, season, land uses/human activity, distance from capture site and overall logistics. The rate of successful relocations can be materially affected by the selection of the relocation site. Distance moved appears to be one of the major factors, so bears should be moved as far as possible within the constraints applied by other considerations.

Potential release areas for grizzly bears are listed below. Specific site selection will be made by agreement among all designated agency representatives participating in each grizzly bear control action. Release of bears at sites not listed will require the specific approval of the receiving land management agency.

	SITE	NF	LOCATION T. R.	STATUS	GENERAL SUITABILITY OFFENDING	SEASON
1.	Red Cr. Divide	Shoshone	54N 109W	Wilderness	Any	Any
2.	Hoodoo Peak	Shoshone	53N 109W	Wilderness	Non-livestock	Any
3.	Upper Sunlight	Shoshone	54N 107W	Non-wilderness	Any	Any
4.	Upper Crouch & Eagle Creeks	Shoshone	51N 109W	Wilderness	Any	Any
5.	Thoroughfare Plateau	Bridger-Teton	47N 108W 47N 109W(E1/2)	Wilderness	Any	Any
6.	Buffalo Plateau	Bridger-Teton	45N 109W(E1/2) 108 46N 109W(E1/2) 108	Wilderness	Non-campground	Any
7.	Two Ocean Plateau	Bridger-Teton		Wilderness	Non-campground	Any
8.	Mountain Creek	Bridger-Teton	49N 109W 50N 109W	Wilderness	Any	Any
9.	Coulter Cr. & Big Game Ridge	Bridger-Teton	48N 113W 48N 114W	Wilderness	Any	Prior to Sept. 1
10.	Monument-Sage	Gallatin	T10S R5E	Non-wilderness	On a case-by-case basis	Prior to Sept. 1
11.	Hell Roaring Buffalo Fork	Gallatin	T9S R10E T9S R11E	Wilderness	On a case-by-case basis	Prior to Sept. 1
12.	Yellowstone	———	———	———	On a case-by-case basis	Any

Flathead National Forest

Forest criteria for accepting problem grizzly bears:

1. No record of unprovoked encounters with people.
2. In good physical condition and not injured.
3. Each bear must be evaluated prior to release.
4. Each bear will be ear tagged and tattooed as a minimum.
5. In most cases, only orphaned cubs and subadult female bears will be accepted from Glacier National Park.
6. Should a bear leave the relocation site, the Regional Supervisor of the Montana Department of Fish, Wildlife and Parks will be notified as soon as possible.
7. Bears otherwise meeting requirements 1-5 that have caused livestock depredation on the Lewis and Clark, Helena, or Lolo National Forests may be released to spring range in the South Fork of the Flathead.

During the period May 31 to September 8, bears will be relocated to areas outside the wilderness. Bears may be relocated within the wilderness from March 1 to May 31 and after Labor Day.

Site	Location (T. R.)	Transportation (Helicopter vs Road	Specific Restrictions on each site (if any) Type of Bear Season Unacceptable	Unacceptable
1. Slide or Upper Sullivan		Helicopter		
2. Twin Creek Drainage		Helicopter		
3. Sargeant Creek Drainage		Helicopter		
4. Corporal Creek Drainage		Helicopter		
5. Soldier Creek (Tin Basin)		Road		
6. Rock Creek Drainage		Road		
7. Connor Creek Drainage		Road		
8. Bunker Creek Drainage		Road		
9. Upper Trail Crek (via Big Bill Rd.)		Road		
10. Upper South Fork*		Helicopter		

* Within Wilderness

Specific Restrictions

Site	Location (T. R.)	Transportation (Helicopter vs Road)	on each site (if any) Type of Bear Season Unacceptable	Unacceptable
Hungry Horse District				
1. Felix Peak		Helicopter		
2. Unawah Mountain		Helicopter		
3. Red Sky Mountain*		Helicopter	5/31-9/8	
4. Spruce Pt.*		Helicopter	5/31-9/8	
5. Hemitite Peak*		Helicopter	5/31-9/8	
6. Vinegar Mountain*		Helicopter	5/31-9/8	
7. Mt. Bradley*		Helicopter	5/31-9/8	
8. Twin Peak*		Helicopter	5/31-9/8	
9. Red Plume Mountain*		Helicopter	5/31-9/8	
10. Slippery Bill Mountain		Helicopter	5/31-9/8	
11. Unawah Creek Drainage		Road		
12. Puzzle Creek		Road		
13. Trapper Bigelow		Road		
14. 25 Mile		Road		
15. Long Creek		Helicopter		

*Within Wilderness

Advance approval of the Regional Forester has been received to relocate grizzly bears within wilderness. it is our intent that bears be relocated near elk winter habitat in the South Fork where carrion may provide a temporary food source. The exact location can best be determined at the time a bear is captured. Bears may be relocated within the wilderness from March 1 to May 31 and after Labor Day. Bears will be carefully screened to meet the established requirements.

There are many summer activities with potential for conflict planned near the proposed release sites. The time a bear is ready for release has bearing on potential conflict, so it is essential that the District Ranger be contacted prior to release when the best possible location will be mutually selected.

The continued success in relocating grizzly bears is dependent on how well individual bears are evaluated. It is our judgment that bears from Glacier National Park are most often in problem situations because of their interaction with people. In most cases, we consider these bears a higher risk for relocation than bears from habitats outside the Park. For this reason, only orphaned cubs and subadult females that meet all the suitability requirements, and which are a "good risk", will be approved for relocation to the Flathead National Forest.

Lewis and Clark National Forest

Forest criteria for accepting problem grizzly bears:

1. No grizzly bear which is feeding on dead livestock or is involved in livestock depredations immediately prior to capture will be relocated in any of the designated spring use areas.

2. No grizzly bear involved in cabin depredation will be relocated in any of the designated spring use areas.

3. Grizzly bear captured on the Rocky Mountain Front will normally be relocated west of the Continental Divide.

4. Designated sites will not be available for translocated bears if current use of the area by native grizzlies is known.

5. Grizzly bear will not normally be relocated after October 15 due to heavy dispersed human use associated with big game hunting seasons, a rapid decline in dependable food sources, and the limited amount of time available for an animal to adapt to a new environment prior to denning.

6. Male grizzly bears will be moved at least 70 miles and females and subadults at least 30 miles, whenever possible.

7. A maximum of three individual grizzly bears or female-cub groups will be accepted on the Forest during a seasonal use period in a given calendar year.

8. Male grizzly bears will be considered for relocation onto the Lewis and Clark National Forest under the following conditions:

   a. The bear has no known history of aggressive behavior towards humans.

   b. The bear has no known history of livestock depredation.

   c. Approval for relocation of male bears will be determined on a case-by-case basis.

Spring Release Sites (April 1 - June 30)	Location (T. R.)	Transportation (Helicopter vs Road)	Specific Restrictions on each site (if any) Type of Bear Unacceptable	Season Unaccept.
1. Ninemile Park*	25N, 10W; S. 33 & 34	Helicopter		5/31-9/8
2. Ray Creek Trail*	24N, 10W, S. 19 & 30	Helicopter		5/31-9/8
3. Dryden Creek*	24N, 10W, S. 33 & 34	Helicopter		5/31-9/8
4. Two Shacks Flat*	23N, 10W, S. 27 & 28	Helicopter		5/31-9/8
5. Prairie Creek*	21N, 10W, S. 6 & 7	Helicopter		5/31-9/8
6. West Fork Sun River*	21N, 11W, S. 22	Helicopter		5/31-9/8
7. Grassy Hills*	18N, 8W, S. 31	Helicopter		5/31-9/8
8. Elk Creek	18N 8W, S. 8 & 10	Helicopter/Road		5/31-9/8

Summer-Fall Release Sites (July 1 - October 15)	Location (T. R.)	Transportation (Helicopter vs Road)	Specific Restrictions on each site (if any) Type of Bear Unacceptable	Season Unaccept.
1. Goat Ridge*	23N, 11W, S. 5 & 8	Helicopter		5/31-9/8
2. Grizzly Gulch*	22N, 11W, S. 16 & 21	Helicopter		5/31-9/8
3. Pine Creek*	22N, 12W, S. 27 & 34	Helicopter		5/31-9/8
4. Blind Fork*	21N, 12W, S. 23 & 26	Helicopter		5/31-9/8
5. Flint Mountain*	18N, 10W, S. 8 & 9	Helicopter		5/31-9/8
6. Scapegoat Mountain*	18N, 10W, S. 13,14,15	Helicopter		5/31-9/8
7. Bailey Basin	18N 8W S. 22	Helicopter		5/31-9/8

1/

* Inside Wilderness -- No bears will be relocated to the Lewis & Clark N.F. during summer months because all release sites are in wilderness areas.

The summer-fall relocation sites were selected to avoid the more heavily used trails and popular camping areas. An evaluation of current or expected public recreational use, Forest Service work crew schedules, etc., will be factors to consider in determining which site is best suited for a specific relocation effort.

Grizzly bear relocation sites were selected for two seasonal use periods determined by forage availability and accessibility of the area to grizzlies. Spring use areas are those usable by grizzly bears from the time they leave the den until late June when higher elevation habitats become available. Summer-fall use areas will generally be considered as those providing the necessary habitat requirements for grizzlies during the period July 1 to October 15.

Helena National Forest

Forest criteria for accepting nuisance grizzly bears:

1. Bears may not be located within wilderness between Memorial Day and Labor Day.
2. Male bears must be sub-adult or younger in view of Forest Service recent experience.
3. No stock killing bears (cattle or sheep) will be accepted due to sensitive nature of stock-depredation in past years.
4. All bears will be equipped with radio collars and monitored through the first denning season by MDFWP.
5. A maximum of one (1) bear per year will be accepted in the Scapegoat Wilderness.

Site	Location (T. R. S.)	Transportation (Helicopter vs Road)	Specific Restrictions on each site (if any) Type of Bear Season Unacceptable	Unaccept.
1. Crow Peak* (Note: This site involves Lolo, Helena, and Lewis & Clark NF's)	17N, 9W, S.9,10,11	Helicopter	See above	5/31-9/8
2. Mineral Hill* (Note: This site involves Lolo and Helena NF's)	16N, 10W, S. 7 & 18	Helicopter	See above	5/31-9/8

*With wilderness

Lolo National Forest

Forest criteria for accepting bears:

1. The Youngs Peak area is the Forest's first priority area. Second priority is Mt. Headley, and the third is Lake Elsina.

2. No condition B. or C. bears.

3. Male grizzlies may be accepted as provided below:

Site	Location (T. R.)	Transportation (Helicopter vs Road)	Specific Restrictions on each site (if any) Type of Bear Unacceptable	Season Unaccept.
1. Youngs Peak	17N, 13W	Helicopter/Road	M-old adult F-old adult	None
2. Mt. Headley	23N, 29W	Helicopter/Road	F-old adult F-old adult w/young F-prime adult w/young M-prine adult M-old adult	None
3. Lake Elsina	17N, 17W	Helicopter/Road	F-old adult F-old adult w/young M-all categories	None

Footnote - Livestock killing bears are not desired since all sites are adjacent to livestock grazing areas.

Idaho Panhandle National Forests

1. Sandpoint Ranger District

Site	Location	Transportation
Scotchman #2	T. 56 N., R. 3 E.	Helicopter
Savage Mountain	T. 29 N., R. 34 W.	Helicopter
Twin Peaks Area	T. 57 N., R. 3 E.	Road/helicopter

2. Priest Lake Ranger District

Site	Location	Transportation
Cabinet Pass	T. 39 N., R. 5 W.	Road
Little Snowy Top	T. 49 N., R. 5 W.	Helicopter

3. Bonners Ferry Ranger District

Site	Location	Transportation
Trapper Peak/ Phoebe Tip	T. 64 N., R. 4 W.	Road
Lions Head Ridge	T. 65 N., R. 3 W.	Helicopter
Northwest Peak	T. 37 N., R. 34 W.	Road
Hunt Girl Creek	T. 60 N., R. 2 E.	Road

Colville National Forest

Site	Location	Transportation
Salmo Creek	T. 40 N., R. 40 E.	Vehicle/Helicopter
Pass Creek Pass	T. 38 N., R. 45 E.	Vehicle
Gypsy Peak	T. 40 N., R. 45 E.	Helicopter
Shedroof Mountain	T. 40 N., R. 45 E.	Helicopter/Vehicle

Kootenai National Forest

Contact Forest Supervisor's Office.

Flathead/Blackfoot Indian Reservations

Contact BIA Superintendent and Tribal Chairman.

Cat. No. _____

INTERAGENCY NUISANCE GRIZZLY BEAR REPORT FORM

(Use to report all captures, attempted captures, and incidents involving problem bears)

CAPTURE RECORDER _____ CAPTURE DATE _____

BEAR NO. _____ AGE _____ SEX _____

CAPTURE SITE _____

HABITAT DESCRIPTION (i.e., farm, outfitter camp) _____

_____

CAPTURE METHOD _____ CAPTURE PERSONNEL _____

PERSONS DETERMINING NUISANCE STATUS _____

_____

REPRODUCTIVE STATUS _____ PHYSICAL CONDITION _____

HISTORY OF BEAR _____

_____

_____

OTHER DESCRIPTION _____

_____

_____

ACTION TAKEN TO RESOLVE INITIAL CONFLICT _____

_____

_____

RELEASE RECORDER _____ RELEASE DATE _____

DISTANCE MOVED _____ EAR TAGS & COLOR (L. EAR) _____ (R. EAR) _____

RELEASE PERSONNEL _____ DRUG DOSAGES _____

RADIO FREQUENCY & TYPE _____ MOUNTED BY _____

RELEASE SITE (LOCATION AND TYPE, i.e., WILDERNESS, PARK, ETC.) _____

_____

_____

RELEASE SITE AGREED TO BY (Personnel/AGENCY) _____

_____

Copies of this form should be sent to: Grizzly Bear Recovery Coordinator, U.S. Fish and Wildlife Service, MS 105D, University of Montana, Missoula, MT 59812, who will distribute

Grizzly Bear Mortality Report Form

Bear Identification: Ear Tag Nos. _____ Tatoo _____

Radiocollar frequency _____ Sex _____ Age____

Date of Mortality _____ Location (be specific, include legal description or UTM's)_____

Description of Cause _____

_____

Carcass disposition _____

Comments (bear history, etc.) _____

_____

_____

Copies of this form should be sent to: Arnold Dood, Endangered Species Biologist, Montana Dept of Fish, Wildl. & Parks, Box 5, Montana State University, Bozeman, MT 59717.

GLOSSARY

Areas Where Grizzly Activity is Common: Areas where grizzly presence (evidenced by grizzly sightings, sign and kills) has been consistenly documented over the years.

Conserve (conservation: definition from ESA, 1973): The term "conservation" means to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenancepropagation, live trapping and transplantation, and in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Grizzly-Human Conflict Situation: A confrontation between man and/or his property and bear(s) in which the safety of man and/or bear(s) is jeopardized and/or property loss occurs.

Conditioned: A condition of grizzlies who consistently and aggressively pursue and depend upon food materials (human food, garbage, prepared livestock and pet foods, carrion, livestock, game meat) associated with man or his activities. Such individuals usually have no fear of man and are docile in man's presence until incited.

Management Situation: A condition or state of affairs with unique circumstances involving grizzly bears. Situations apply to and are represented as mapped land areas. A given situation will apply to land areas which may differ physically but share other characteristics (i.e., grizzly populations and habitat dependencies).

Natural, Free-Ranging Grizzly Bear Population: A nonhabituated grizzly population in which individuals use natural foods exclusively under free-roaming conditions. A more natural free-ranging grizzly population could result it:

(1) relocation would likely "wean" the problem grizzly from unnatural food use; or,

(2) removal of the problem grizzly, if totally habituated or dangerous to man, would likely rid the population of an unnatural (addicted) individual and perhaps open a space for a more natural individual.

Nuisance:

Condition A. The bear causes significant depredation to lawfully present livestock or uses unnatural food materials (human and livestock foods, garbage, home gardens, livestock carrion, and game meat in possession of man) which have been reasonably secured from the bear resulting in conditioning of the bear or significant loss of property.

Condition B The bear has displayed aggressive (not defensive) behavior toward humans which constitutes a demonstrable immediate or potential threat to human safety and/or a minor human injury resulted from a human/bear encounter.

Condition C The bear has had an encounter with people resulting in a substantial human injury or loss of human life.

Species: (from ESA, 1973) The term "species" includes any subspecies of fish or wildlife or plants and any other group of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when mature.

Threatened: (from ESA, 1973) The term "threatened species" means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

METHOD FOR DETERMINING GRIZZLY BEAR HABITAT QUALITY AND ESTIMATING CONSEQUENCES OF IMPACTS ON GRIZZLY HABITAT QUALITY

By

STEPHEN P. MEALEY

NOTE:

Although dated in some aspects, this methodology is still useful at the project level. It should be used in conjunction with updated Cumulative Effects Assessment models.

PREFACE

The Endangered Species Act of 1973 (P.L. 93-205) requires that all federal agencies take necessary actions to insure that critical habitat for endangered or threatened species is not (adversely) modified or destroyed (Sec. 7).

Federal agencies are obliged to analyze and review their activities and programs to determine how listed species will be affected (Fish and Wildlife Service, 1976). The method presented here is a response to this obligation.

The objective of the method is to provide an analytic process capable of (1) producing reliable determinations of the quality of proposed land use sites as grizzly habitat, and (2) providing reliable estimates of the effects (consequences) of proposed activities on determined grizzly habitat.

Effects of programs and activities (logging, fire management, road construction, mineral exploration, livestock grazing, recreation and grizzly habitat improvement) on grizzly bear habitat are assumed to be positive, negative, or neutral depending on many variables. This assessment method will facilitate the reliable estimation of consequences of each proposed land use on a site-by-site basis.

SURVEY PROCEDURES [1/]

Overview

Extensive and intensive survey areas are designated for proposed land use sites. Primary and secondary land use impact areas are designated within the survey areas. HQR and CAR are based upon data taken in sample plots located in each known grizzly habitat component (Tables 1 and 2) and each other forested habitat type (Pfister et al., 1974) and grassland/shrubland habitat type (Mueggler and Handl, 1974) present in each impact area. Searches for grizzly sign and activity are conducted in impact areas to supplement HQR data.

Survey Areas, Impact Areas, Plot Selection and Sampling

Extensive survey areas are the largest designated in association with proposed land use sites. They include the use sites but extend far beyond them and may encompass one or more townships. They are delineated on 1:62,500 USGS maps. Extensive surveys provide general overviews of the status of grizzly bears and other resources. Off-site analyses of aerial photos, topographic and vegetation maps, land use records, unit plans and other pertinent sources provide general information about topography, vegetation types, climate, wildlife and resource use history.

Intensive survey areas occur within extensive areas, include the proposed land use sites, and may extend beyond them to encompass one or more sections but usually not townships. They are delineated on 1:23,674 USGS maps, aerial photos or orthophotoquads. Intensive surveys provide specific information about proposed land uses and grizzly habitat. The proposed locations of land uses and areas likely to be affected are mapped. Locations of the main grizzly habitat components, activity centers, and use sites near proposed use areas are also accurately mapped. Areas of overlap are highlighted. Appropriate off-site sources for this information are plans of proposed land uses, aerial photos, habitat type maps, unit plans, grizzly activity reports and grizzly habitat studies.

Primary and secondary land-use impact areas are delineated within intensive survey areas on 1:23,674 USGS maps. Primary areas are those in which one or all of grizzly food, cover, space and behavior would be altered directly or indirectly by new uses of the area. Secondary areas are those in which alterations would be possible but much less likely than in primary areas. Sizes of impact areas will vary with terrain and type and duration of each proposed activity.

1/ A checklist of survey procedures and a data collection procedure summary are included in the Appendix.

Data for food and cover taken from each five plot sample are kept on master Form 1. Individual master forms are maintained for every habitat component and each other habitat type occurring in each impact area. Evaluations of grizzly behavior and spatial use are also made three times a year and are based on considerations of each impact area taken as a whole rather than on sample plots. These evaluations are recorded on Form 2.

Spring samples are normally taken between mid-May and mid-June, depending on local phenology. Sampling occurs before early forbs (Claytonia spp., Ranunculus spp., Anemone spp., Erythronium spp., Fritillaria spp., Dodecatheon spp., etc.) are gone or inconspicuous. Summer plots are sampled when seeds of grasses and forbs are normally ripe and their leaf tips drying and fruits of deciduous shrubs are green. These conditions normally exist (except in very wet sites) in early August. Autumn sampling occurs normally in early October when grasses and forbs in all but wet sites have dry or drying leaves and stems and fruits of shrubs are dry. Seasonal sampling facilitates the determination of availability and use of food, cover and space.

A search for grizzly sign and activity is conducted in primary and secondary impact areas. Grizzly sightings, tracks, scats, diggings, hair and other sign are reported on Forms 4 and 5.

Search for Grizzly Sign and Activity

Searches for grizzly sign and activity are conducted in spring, summer and autumn as part of the overall evaluation process. Searches are conducted from the ground in primary and secondary impact areas. Ground searches may be supplemented by aerial surveys if feasible.

Ground searches should be systematic. A recommended method involves the establishment of permanent walking routes. Routes are laid out in a grid configuration with a constant interval between routes. Intervals should be spaced to give representative coverage of impact areas. Care should be taken to include the more important habitat components (avalanche chutes, burns, wet meadows, etc.) in survey routes. Routes are walked at least once, but as many times as feasible, each season.

Grizzly sightings, tracks, diggings, hair, dens and other sign noted along routes are reported on Forms 4 and 5. Grizzly scats are also collected, analyzed, and the contents reported. Basic references are: Murie (1954), for species, track and scat identification; Tisch (1961) and Mealey (1977), for scat identification and analysis; Greer and Craig (1971), for track identification; Spence (1963), for hair identification and Craighead and Craighead (1972) and Knight et al. (1977) for dens.

When animal material is present, FHQR equals the sum of the letter values for animal material food value and total occurrence, total coverage and food value of food plants where H = 3, M = 2, L = 1 and 0 = 0. Sums become letter values according to the following conversions: 0-4 = L, 5-8 = M and 9-12 = H. For example, assume animal material is H, total occurrence is L, total coverage is H and food value is 0; the sum is 7 so FHQR = M. When animal material is absent, FHQR equals the sum of the letter values for total occurrence, total coverage and food value of food plants where H = 3, M = 2, L = 1 and 0 = 0. Sums become letter values by the following conversions: 0-3 = L, 4-6 = M and 7-9 = H.

When FHQR = H, food habitat quality is high; when FHQR = M, food habitat quality is medium; when FHQR = L, food habitat quality is low; and no food habitat quality exists when FHQR = 0.

Consequence Analysis Estimation

Consequence analysis rating (CAR) involves estimation of the probable or necessary effects of proposed land use impacts on the quality of grizzly food on all five plots taken as a group or whole and the area represented by them. Consequences are estimated by (1) identifying all probable impacts of proposed land uses on each component's or type's FHQR including plant and animal foods and the soils which support them, and (2) estimating the probable effects of the impacts upon food and soils.

CAR are based upon estimates of (1) desirable species (see ecology section) and other grizzly food plant's and animal's probable responses to different proposed land uses, (2) the likelihood of soil disturbances, and (3) probable food availability to bears.

(d) Plants and Animals - Food plant root systems would be exposed, removed or overturned. Animals and plants would become unavailable as food to bears through either direct use and/or removal by other consumers (livestock, wildlife and man) or other activities which would interfere with grizzly access to or use of food plants and animals.

Neu. = Neutral effect on food habitat quality (FHQR). Most bear food plants would likely be unaffected by the proposed activity. None of the above conditions (a-d under Neg.) would apply.

Pos. = Positive effect on food habitat quality (FHQR). Conditions favoring food plant and animals would be initiated or enhanced. Any or all of the following conditions could apply:

(a) Soil - Soil stability and healing would be enhanced without soil disturbance.

(b) Water - Water supply would be altered to benefit desirables.

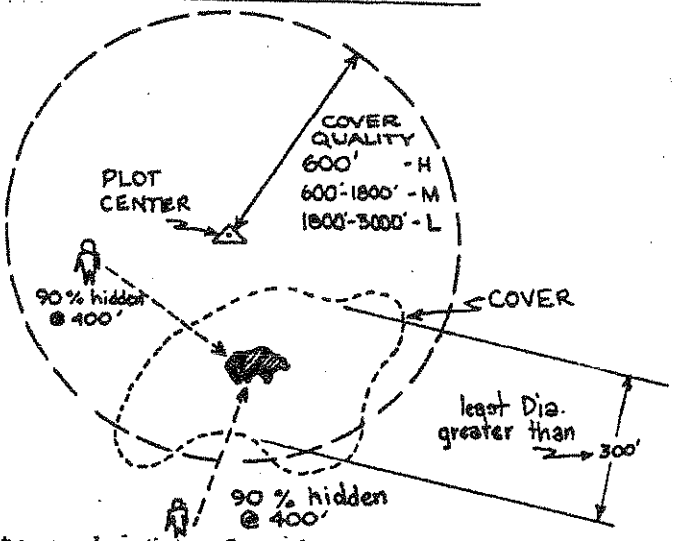
(c) Sunlight - Sun exposure would be altered (slightly increased through partial overstory removal) without soil disturbance, benefiting desirables.

(d) Plant and Animals - Conditions for increasing, re-establishing and/or invigorating grizzly foods would be initiated or improved. Availability of food to bears would be increased by removing interference factors and/or other consumers.

POSITIVE, NEUTRAL AND NEGATIVE EFFECTS COULD ALL CONCEIVABLY RESULT FROM IMPACTS ON THE SAME PROPOSED LAND USE SITE. PROFESSIONAL JUDGMENT AND DISCRETION ARE NECESSARY IN ORDER TO RELIABLY ESTIMATE THE DOMINANT CONSEQUENCES AND CHOOSE A CAR WHICH REFLECTS THEM. GENERALLY A CONSERVATIVE APPROACH IS DESIRABLE. FOR EXAMPLE, ONE SEVERE NEGATIVE EFFECT MAY OFFSET TWO OR MORE POSITIVE EFFECTS. THE EFFECT OR GROUP OF EFFECTS WHICH WILL EXERT THE MAJOR INFLUENCE ON GRIZZLY USE OF THE SITE WILL RECEIVE THE GREATEST CONSIDERATION IN CAR.

The appropriate food habitat quality CAR value is placed in the blank opposite FHQR on Form 1. VERBAL RATIONALE FOR THE RATING, INCLUDING MAGNITUDE AND DURATION OF LIKELY EFFECTS IS GIVEN ON FORM 3.

COVER HABITAT DETERMINATION



Cover in relation to each plot of each sample group is evaluated using the following criteria:

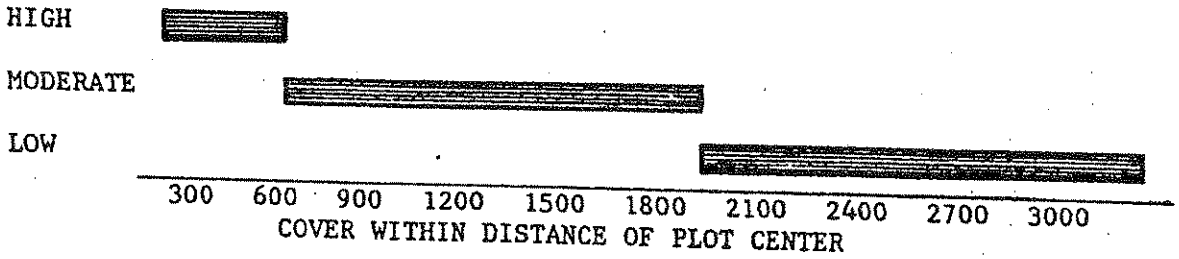
CHQR = H; cover habitat quality is high when cover occurs within 600 feet of plot center.

CHQR = M; cover habitat quality is medium when cover occurs between 600 and 1,800 feet of plot center.

CHQR = L; cover habitat quality is low when cover occurs between 1,800 and 3,000 feet from plot center.

CHQR = 0; no cover habitat quality exists when cover is absent within 3,000 feet of plot center.

COVER HABITAT QUALITY



Rating categories are much the same as for food CAR because most cover vegetation, including herbs and shrubs, will respond negatively to severe mechanical soil disturbances. Conifer regeneration is favored by scarification, but overall site food quality is lowered. Categories are as follows:

Neg. = Negative effect on cover habitat quality (CHQR). Most trees, shrubs and tall herbs providing cover would decrease. Landscape would be altered to reduce cover quality. The following effects would apply.

(a) Topography - Relief would be altered or otherwise interfered with to reduce its qualities for escape and security.

(b) Soil - Soil would be exposed.

(c) Water - Water sources would be detrimentally altered.

(d) Plants - Cover plants, including root systems, would be removed, overturned or otherwise disturbed and/or cover plants would become unavailable to bears through activities which would interfere with grizzly access to them.

Neu. = Neutral effect on cover habitat quality (CHQR). Cover would be unaffected by the proposed activity. None of the above conditions (a-d under Neg.) would apply.

Pos. = Positive effect on cover habitat quality (CHQR). Conditions favoring cover plants and relief would be initiated or improved. One or all of relief, soil, water, sunlight and plant influences on cover would be improved.

The appropriate cover habitat quality CAR value is placed in the blank opposite CHQR on Form 1. If dens or den sites are present or suspected, likely effects of impacts are indicated in the space provided below CHQR opposite denning area on Form 1. Consequence stratification rationale should be included on Form 3 as appropriate.

Space

Habitat Quality Determination

Spatial Habitat quality is determined by identifying each impact area's value as part of the total space used by an individual or population of grizzlies. Quality is expressed by seasonal space habitat quality rating (SHQR).

SHQR is a value which expresses the quality of an impact area as part of a total grizzly use system. Quality is evaluated using the following criteria:

SHQR = M; space habitat quality is medium when the impact area is at the "outer edges" of a high quality area. The area may serve as a buffer between high and lower quality areas(Erickson, 1976, 1975) and may contain one or more important habitat types or components, but none that are of critical seasonal importance such as early green-up areas. The area may be used occasionally by an individual grizzly or a population of grizzlies from a high quality area.

SHQR = L; space habitat quality is low when the impact area is at the extreme outer fringe of a medium quality area. The area may be considered marginal in the sense that individual grizzlies may be highly vulnerable to established and legitimate uses. The area may contain one or more habitat components but none of critical seasonal importance. The area is seldom used by grizzlies.

SHQR = 0; no space habitat quality exists when impact areas are not associated with an established grizzly use system and no grizzly habitat components occur.

SHQR = HX; characteristics of H are present but grizzlies do not occur in the area (potential range).

SHQR = MX; characteristics of M are present but grizzlies do not occur in the area (potential range).

SHQR = LX; characteristics of L are present but grizzlies do not occur in the area (potential range).

After the appropriate SHQR is chosen, the value is entered in the blank under SHQR on Form 2.

Consequence Analysis Estimation

CAR requires the estimation of the probable or necessary effects of proposed land use impacts on SHQR or the impact areas and the use systems of which they are a part. This requires (1) identification of all probable activities and their probable impacts, and (2) estimation of effects of impacts upon spatial quality and the components which make it up.

Pos. = Positive effect on space habitat quality (SHQR). Any positive effects recorded for FHQR and/or CHQR probably constitute positive effects. Any other general benefits or enhancements of conditions for grizzlies resulting from the use (such as removal of pre-existing negative factors through, for example, road closures and removal of garbage facilities or other human developments) would apply here.

The appropriate space habitat quality CAR value is placed in the blank SHQR on Form 2. A verbal stratification of consequences is entered on Form 3.

Behavior

Behavior Quality Determination

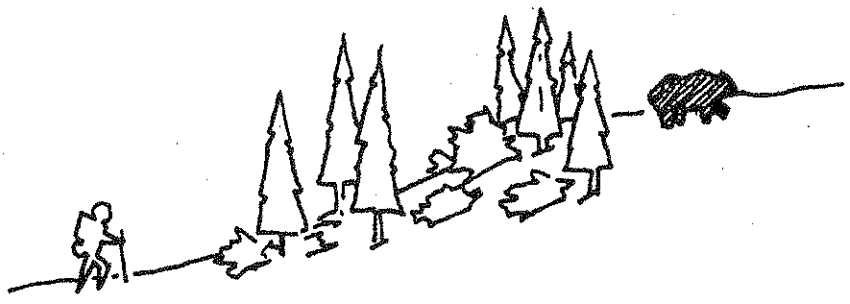
Behavior quality determination involves identification or estimation of the general predisposition of grizzlies in each impact area to man and to natural foods. Behavior quality is expressed by a seasonal behavior habitat quality rating (BHQR).

BHQR is a value which expresses(1) the extent to which grizzly behavior in impact areas is pristine or modified with respect to food use and man, and (2) likely human-grizzly conflict potential in impact areas assuming accepted measures of food storage and garbage disposal are used. BHQR are made using the following criteria:

BHQR = H; behavior quality is high when behavior in impact areas is essentially pristine. No grizzlies are habituated to man and all flee in most encounter situations. Conflict potential is low. Natural foods are used exclusively by all individuals under free-ranging conditions.

HIGH BEHAVIOR QUALITY

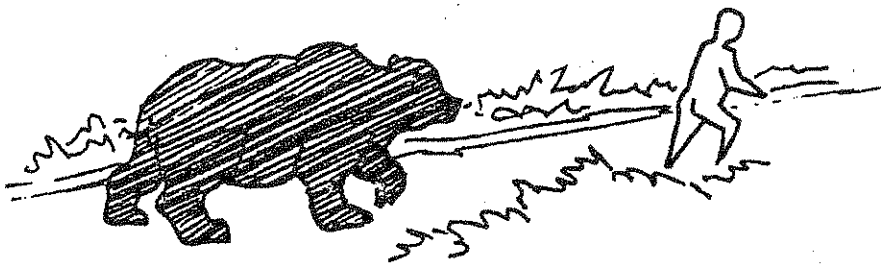
BEAR IS NOT HABITUATED TO MAN: NATURAL FOODS ARE USED: MOST BEARS FLEE MAN ON ENCOUNTERS; CONFLICT POTENTIAL IS LOW.



BHQR = 0; no behavior quality exists when behavior of two or more is modified to the extent that individuals are totally habituated to man and they have no fear of man. Conflict potential is extremely high. Unnatural foods are depended upon and such foods are agressively pursued and taken wherever they occur.

AGGRESSIVE BEHAVIOR QUALITY

TOTALLY HABITUATED TO, AND HAVE NO FEAR OF, MAN; DEPENDENT ON AND AGGRESSIVELY PURSUE UNNATURAL FOODS; CONFLICT POTENTIAL IS EXTREMELY HIGH.



The appropriate BHQR value is entered in the blank under BHQR on Form 2.

Consequences Analysis Estimation

CAR requires estimation of the probable or necessary effects of proposed land use impacts on BHQR or the dominant behavior patterns apparently characteristic of the population or individuals in each impact area. Ratings reflect the extent to which land uses would likely affect existing behavior patterns.

FORM 1. GRIZZLY BEAR HABITAT QUALITY AND CONSEQUENCE ANALYSIS EVALUATION MASTER, FOOD AND COVER

No. _____, Habitat Component/Type: _____ Impact Area: _____ Slope: _____ Aspect: _____ Elevation: _____

% of Impact Area: _____ Proposed Use: _____

Food Groups	Spring Evaluation Date: P-1	P-2	P-3	P-4	P-5	AVG. and TOT.	CAR[6]	Summer Evaluation Date: P-1	P-2	P-3	P-4	P-5	AVG. and TOT.	CAR[6]	Autumn Evaluation Date: P-1	P-2	P-3	P-4	P-5	AVG. and TOT.	CAR[6]
1) Succulent Herb Tops "Mesophytes" and "Hydrophytes"																					
Graminae																					
Carex spp.																					
Claytonia lanceolata																					
Cirsium foliosum																					
Trifolium spp.																					
Equisetum arvense																					
Angelica spp.																					
Heracleum lanatum																					
Ligusticum spp.																					
Osmorhiza spp.																					
Polypodiaceae																					
Ranunculus spp.																					
Rumex spp.																					
Senecio triangularis																					
Taraxicum spp.																					
Veratrum viride																					
Sub. Tot. / Coverage																					
2) Starchy Herb Roots "Geophytes"																					
Lomatium spp.																					
Perideridia gairdneri																					
Claytonia spp.																					
Erythronium grandiflorum																					
Fritillaria pudica																					
Polygonum bistortoides																					
Swilacina spp.																					
Astragalus spp.																					
Hedysarum spp.																					
Helina speciabilis																					
Sub. Tot. / Coverage																					
3) Fleshy fruit-bearing Shrubs/Herbs																					
Vaccinium globulare																					
Vaccinium scoparium																					
Vaccinium caespitosum																					
Sorbus spp.																					
Shepherdia canadensis																					
Amelanchier alnifolia																					
Arctostaphylos uva ursi																					
Cornus stolonifera																					
Lonicera involucrata																					
Lonicera utahensis																					
Ribes spp.																					
Rosa spp.																					
Sub. Tot. / Coverage																					
4) Nuts																					
Pinus albicaulis																					
Sub. Tot. / Coverage																					
5) Animal Species: Indicate E, M, D, R, F for elk, moose, deer, rodent or fish																					
Total Occurrence[1]																					
Total Coverage[2]																					
Food Value[3]																					
FHQR																					
P-1 + P-2 + P-3 + P-4 + P-5 = CHQR																					
CHQR																					
Known or suspected denning area																					

Other Comments: 1) Seasonal weather trends: Normal ____, Abnormal ____. If abnormal, then: dry ____, wet ____, cold ____, warm ____. 2) Nature of animal activity (i.e.) ruminant winter range, etc.

Continue on back:

Other Comments: 1) Seasonal weather trends: Normal ____, Abnormal ____. If abnormal, then: dry ____, wet ____, cold ____, warm. 2) Nature of animal activity (i.e.) ruminant winter range, etc.

Continue on back:

Other Comments: 1) Seasonal weather trends: Normal ____, Abnormal ____. If abnormal, then: dry ____, wet ____, cold ____, warm. 2) Nature of animal activity (i.e) ruminant winter range, etc.

Continue on back:

Notes:

[1] West of Cont. Div.[d]: H = High = 21+ species; M = Medium = 11-20 species; L = Low = 1-10 species; O = None

Alpine Areas, Cont. Div. and East of Cont. Div.[b]: H = High = 13+ species; M = Medium = 7-12 species; L = Low = 1-6 species; O = None

[2] H = High = 61-100%; M = Medium = 21-60%; L = Low = 1-20%; O = None

H = High = 51-100%; M = Medium = 21-50%; L = Low = 1-20%; O = None

[6] Values from bell curves reflecting primarily data in Mealey et *al.*, 1977.

[b] Values inferred and from bell curves primarily from data in Mealey, 1976. Pfister et *al.* provide supporting data.

[3] Food Groups

Food Groups	Spring	Summer	Autumn[c]
1) Herb Tops	H*	M(H)*	L(H)*
2) Herb Roots	M	L	H
3) Fruits	O	H	M
4) Nuts	M	O	H
5) Animal	H	M(H)*	M

[c] From Mealey (1977), Hushy et *al.* (1977) and others referenced in Tables 1 and 2; applied to the food group present with the highest canopy coverage sub-total and the highest food value in the current season.

[d] In fens, bogs, seeps, springs or other wet places where vegetation remains green and supple.

[4] When animal material is present: FHQR (Food habitat quality rating) = Total Occurrence + Total Coverage + Plant Food Value + Animal Material Food Value where letter values for the above equal the following: H = 3, M = 2, L = 1 and O = 0. Sums become letter values according to the following conversions: 0-4 = L, 5-8 = M and 9-12 = H. When animal material is absent, FHQR equals the sum of the letter values for total occurrence, total coverage and food value of plants where H = 3, M = 2, L = 1 and O = 0. Sums become letter values by the following conversions: 0-3 = L, 4-6 = M and 7-9 = H.

[5] CHQR (Cover habitat quality rating) = P-1 + p-2 + P-3 + p-4 + P-5 where H = 3, M = 2, L = 1 and O = 0. Sums become letter values according to the following conversions: 0-5 = L, 6-10 = M and 10-15 = H.

[6] CAR applied against FHQR and CHQR from plots may also be applied against the five plot averages for individual species and food groups. Give verbal rationale for each CAR on Form 3.

[7] H or M; from Food Value, Note 3.

FORM 2. GRIZZLY BEAR HABITAT QUALITY AND CONSEQUENCE ANALYSIS EVALUATION MASTER, SPACE AND BEHAVIOR.

No. _____, Impact Area: _____, Proposed Use: _____

	Space		Behavior	
	SHQR	CAR*	BHQR	CAR*
Spring				
Summer				
Autumn				

Comments:

* Give verbal rationale for each EAR on Form 3.

FORM 3. VERBAL STRATIFICATION OF CONSEQUENCES

Objective: Provide a verbal rationale for each CAR. Explain the magnitude of each probable effect. For example, the following questions should be answered: Will the effect likely be short-term or long-term? Do alternative components exist? Will the effect be reversible with or without mitigation? What are feasible mitigation measures; and will a significant area be affected? Explanations must be given of the extent to which an effect will be positive, negative or neutral.

1. Food CAR Stratification:

2. Cover CAR Stratification:

3. Space CAR Stratification:

4. Behavior CAR Stratification:

Other comments, Continued:

FORM 5.

BEAR SIGHTING AND/OR IDENTIFICATION REPORT.

I. Sighted by_____ Address_____

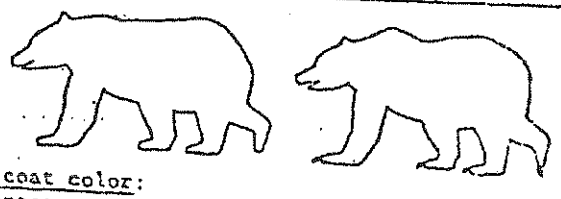
II. Sighting date_____ Time_____

III. Sighting location_____

IV. Description of bear(s):

A. Species:

	As reported	verified by_____
Grizzly	☐	☐
Black	☐	☐
Unknown	☐	☐



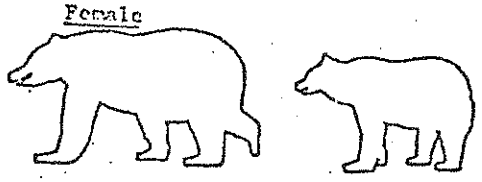
B. Number of bears seen by size and coat color:
(also describe any identifying eartags or markers)

Predominant coat color:

	Weight in pounds—				
	10-50	50-100	100-200	200-400	Over 400
1 - black					
2 - reddish-brown					
3 - gray					
4 - dark brown (chocolate)					
5 - light brown (tan)					
6 - blonde (white-yellow)					
7 -					

C. Diagram coat color pattern of female/young groups only, using colors 1 to 7 above.

Female



Young

D. Activities of bear(s): Preying on_____ Scavenging on_____
Digging_____ Grazing_____ Other_____

V. Report filled out by_____
at (location)_____ on (date/time)_____

Notified (date/time):

Dist. Ofc._____

Cubs-of-year are usually less than 1/4 of female size, or 10-50 lbs;
Yearlings, 1/4-1/2 of female size, or 50-100 lbs.
2-year-olds, 1/2-3/4 of female size, or 100-200 lbs.
Small adult bears are 100-200 lbs; medium adults, 200-400 lbs; large adults, 400+ lbs.

Neu. = Neutral effect on behavior habitat quality. Behavior would be unaffected by the proposed activity.

Pos. = Positive effect on behavior habitat quality. Behavior of at least one grizzly would become modified to make it less habituated to man while no individuals would be made more habituated. This could occur through:

(1) Enhancement of natural food use patterns and enhancement of habitat components providing food and cover;

(2) Permanent removal of unnatural food sources;

(3) Amelioration of conditions contributing to high grizzly-human conflict potential.

The appropriate behavior quality CAR value is placed in the blank under BHQR on Form 2. A verbal stratification of consequences is entered on Form 3.

SURVEY CHECKLIST

I. Before Data Collection:

---Off-site procedures---(Office)

1. Delineate Extensive Survey Area on 1:62,500 USGS Map.

a) Get a general overview.

2. Delineate Intensive Survey Area on 1:23,674 USGS Map.

a) Get specific information on proposed land use and grizzly use.

3. Delineate Primary and Secondary Impact Areas of 1:23,674 USGS Map.

a) Obtain and accurately map locations of all habitat components and other habitat types and all prominent geophysical features.

4. Establish General Sampling Strategy.

a) Determine plot numbers and locations.

b) Establish sampling schedule.

---On-site procedures---(Field)

5. Refine 1-4 above as necessary to reflect actual situations on the ground.

II. Data Collection:

1. Evaluate food and cover using sample plots. Five plots are sampled in each habitat component or other habitat type present in each impact area. Use appropriate conversion and value systems in footnotes on Form 1. Photograph plots each sample period (spring, summer, autumn) to document phenological changes.

2. Evaluate behavior and spatial use, using impact areas as points of reference.

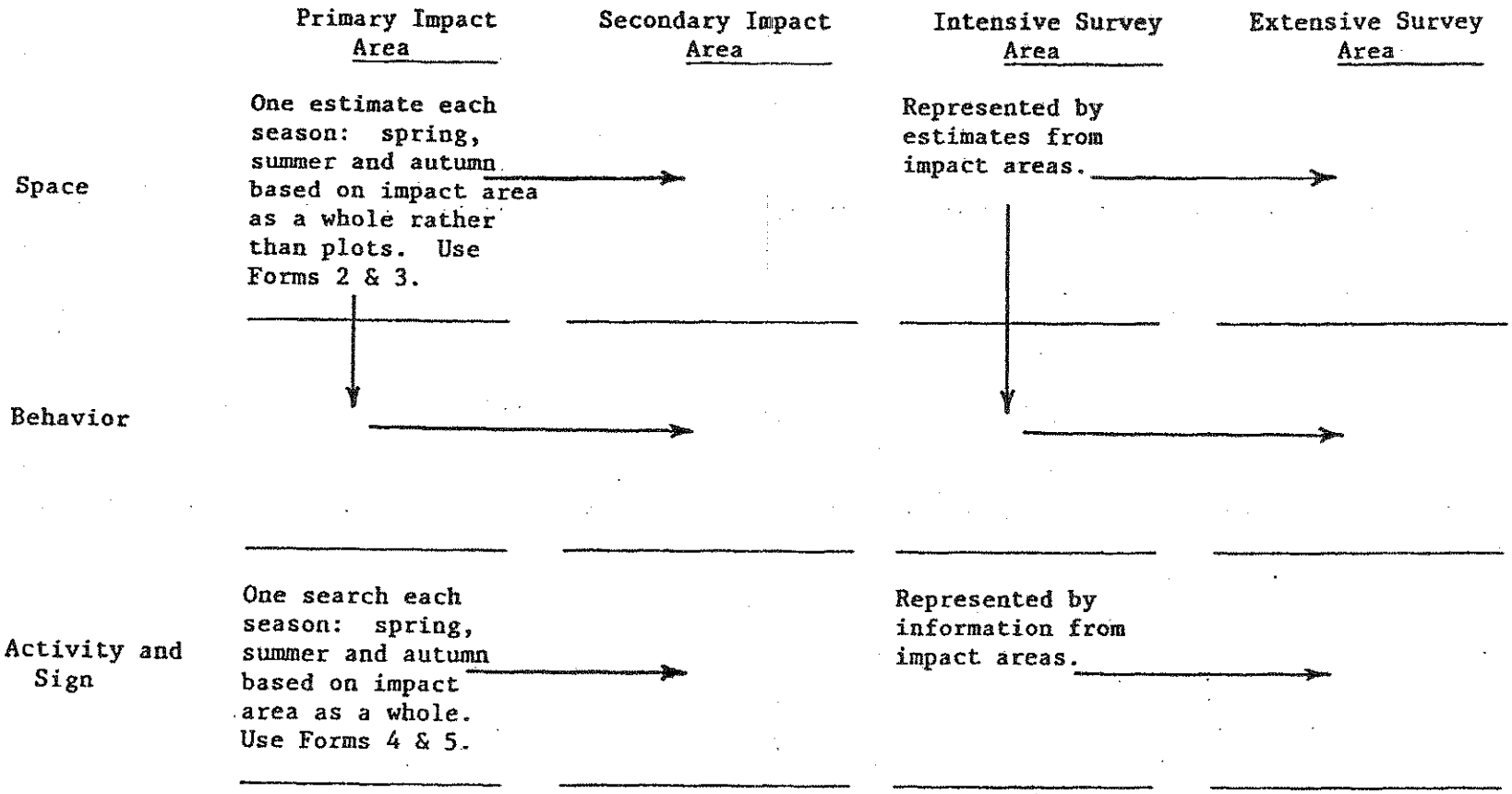
3. For food and cover, estimate consequences of effects on sample groups as a whole or components or types represented by them rather than on individual plots. For behavior and spatial use, estimate effects on impact areas.

4. Stratify consequences verbally.

III. Data Analysis:

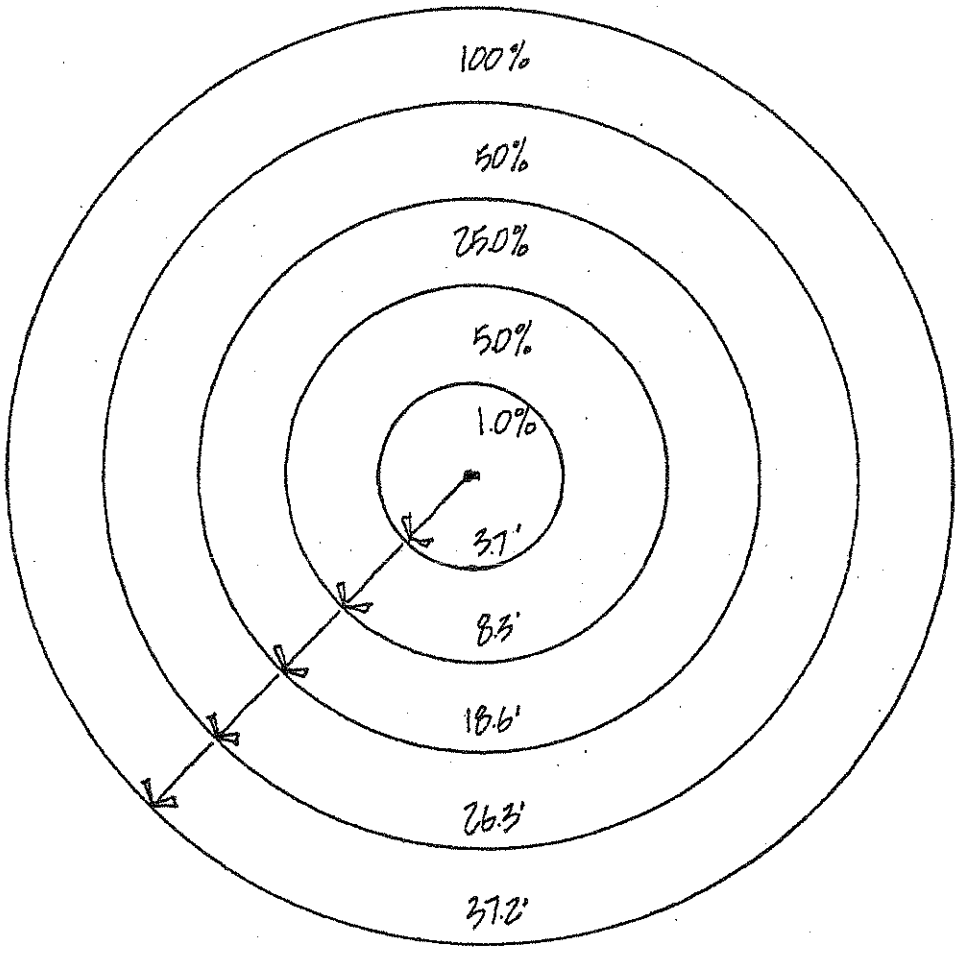
1. Analyze data from perspective of trends rather than totals.

DATA COLLECTION PROCEDURE SUMMARY (Continued)



* If a habitat component or other habitat type is continuous throughout both impact areas, it is sampled with only one five plot group distributed through both impact areas.

AREA DETERMINATION ON A 1/10 ACRE PLOT



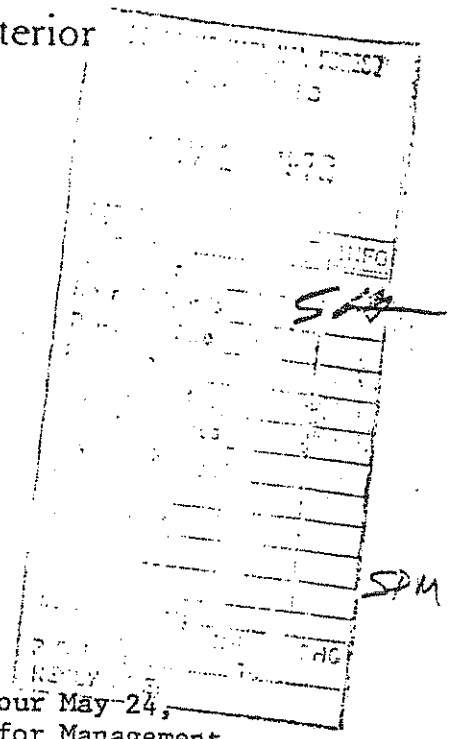
United States Department of the Interior
FISH AND WILDLIFE SERVICE

MAILING ADDRESS:
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION:
134 Union Blvd.
Lakewood, Colorado 80228

IN REPLY REFER TO:
FA/SE/FS--Guidelines for
Grizzly Mgmt. in Greater
Yellowstone (6-1-79-F-100)

NOV 5 1979



Mr. Craig W. Rupp
Regional Forester
Rocky Mountain Region
P.O. Box 25127
Lakewood, Colorado 80225

Dear Mr. Rupp:

This is our biological opinion prepared in response to your May 24, 1979, request for formal consultation on the Guidelines for Management Involving Grizzly Bears in the Greater Yellowstone Area. We have examined the document in accordance with the Section 7 "Interagency Cooperation Regulations" (50 CFR 402, 43 FR 870) and the Endangered Species Act Amendments of 1978.

BIOLOGICAL OPINION

It is our biological opinion that implementation of the Guidelines for Management Involving Grizzly Bears in the Greater Yellowstone Area will promote the conservation of the grizzly bear.

BASIS OF OPINION

The Guidelines offer sound recommendations for developing programs to aid in the conservation of the bear and for eliminating or minimizing human/grizzly conflicts causing adverse impacts to the bear or its habitat. Coordination of programs and activities, through the use of the guidelines, should aid the Forest Service and National Park Service in meeting their responsibilities to conserve this species. The degree to which the grizzly bear will benefit depends upon how extensively and how judiciously the Guidelines are applied.

It is important for the recovery of the grizzly bear that: (1) grizzly habitat be identified and managed as one continuous unit where possible; (2) management priorities be established; and (3) the continuity of management be maintained. Adoption and use of the Guidelines will promote such management. These multi-agency guidelines identify management direction to be taken in behalf of the bears which cross through the

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jurisdiction of several State and Federal agencies. It is an effective method of identifying possible interagency management conflicts so action can be taken to resolve the conflicts and provide compatible management across agency boundaries.

Except for a few areas, we believe that the management situations delineated by the Shoshone, Bridger-Teton, and Targhee National Forests, and Grand Teton National Park reflect an accurate appraisal of grizzly use and desirable management. The steps the Forest and Park Services have taken to resolve difficult issues and make a commitment to grizzly management are commendable. The full array of management situation designations will be an important tool in making management decisions. These designations identify good grizzly habitat so that limited resources can be used to direct efforts where the most benefit will result.

There are, however, things that the Guidelines and this biological opinion will not do. The management situations identify areas necessary for species survival and recovery and consequently imply critical habitat. Our biological opinion cannot ratify this implied designation of critical habitat. These management situations should be considered as interim management zones until official designation of critical habitat has been published.

It is desirable to take an umbrella approach with consultations covering management recommendations. However, in such a consultation it is impossible to: (1) identify specific impacts of projects that have not been proposed; (2) relate project impacts to the biological components and the manner in which grizzlies use an affected area; and (3) predict the degree of compliance with the Guidelines. It is impossible to render a biological opinion on all programs and activities identified in the Guidelines in each of the five management situations. Consultation on Forest Management Plans, Park Master Plans, Park Resource Management Plans, or projects developed through use of these guidelines will be more appropriate than consultation on the guidelines.

Implied in the Guidelines is the assumption that all agencies adopting the Guidelines will fully implement them. This is necessary to achieve the continuity of management. Without standard application, management will remain fragmented and, therefore, less effective.

The Gallatin National Forest and Yellowstone National Park have not identified the full array of management situations upon which the Guidelines are based. The failure to delineate management situations on the Gallatin National Forest fragments this attempt to develop the Guidelines and makes implementation of the Guidelines and conservation of the species less effective. Grizzlies are known to occur outside the areas delineated as Management Situation 1 on the Gallatin National Forest and good grizzly habitat exists outside this zone, so these areas require delineation. Known conflict sources, such as livestock allotments that may be preventing

grizzlies from reaching carrying capacities in areas that qualify as Management Situation 1, need to be resolved. We recommend that the Gallatin National Forest make the commitment other Forests have made by delineating all five of the management situations that may occur in their area of jurisdiction.

The same situation exists in Yellowstone National Park. There may be valid administrative reasons for Yellowstone not delineating management situations. However, the structure of the Guidelines implies that Yellowstone accepts the concept of management situations and their recommended management. If Yellowstone National Park is to be signatory to the Guidelines, the Park should either delineate management situations or specify that management is directed by the Yellowstone Operating Procedure Bear Management Policy attached as an Appendix to the Guidelines.

RECOMMENDATIONS

We concur with almost all of the management directions, but have the following recommendations.

1. Program/Activity Review: The Guidelines indicate that U.S. Forest Service procedures (1977) will be used in most instances to evaluate the effects of activities and programs upon grizzlies and their habitat. We agree that the procedure is an excellent method of determining habitat quality and estimating consequences of specific project impacts. However, the method does not require a consideration of the cumulative effects of past, ongoing, and foreseeable actions which may certainly change the "consequence analysis" ratings. We recommend that the U.S. Forest Service procedures (1977) incorporate the consideration of cumulative effects on the grizzly and its habitat.

2. Timber Management: Post-sale area improvements are outlined in which reforestation is cited as a method to establish cover patches in cut blocks and supplemental cover screens for wet meadows, marshes, bogs, ponds, and other riparian areas. We are not opposed to habitat improvement but suggest that these measures are unnecessary if adequate "leave strips of uncut timber" are properly programmed into the sale design and contract.

The Guidelines recognize road closures as an important management tool but they are vague concerning when roads will be closed to the public. Road closures after termination of timber sales will not adequately protect the grizzly in all cases. We recommend that road closures during the logging contract period, as well as after termination of the sale contract, be considered.

3. Range Management: The conflict between sheep and grizzlies is well documented by the Interagency Grizzly Bear Study Team, Border Grizzly Project, and our own Animal Damage Control program. The recent

illegal killing of grizzly #14 on Boone Creek and other suspected poaching demonstrates the incompatibility between grizzlies and sheep allotments in Management Situation 1. The recovery of grizzly in areas where this type of conflict occurs will continue to be suppressed.

The Guidelines describe various management alternatives to eliminate or lessen this conflict, including removal of bear attractants, changing the season of use, bedding practices, grazing areas, or changing from sheep to cattle if the range is suitable for cattle. These measures are designed to reduce or eliminate the conflict between bears and sheep. They do not, however, address the conflict that occurs between man and bear. Indiscriminant and illegal killing of grizzly bears to prevent sheep depredation still occurs. If operators on sheep allotments in Situation 1 areas are not willing to operate within the framework of the Guidelines, we recommend the sheep be removed.

This completes the formal consultation process on the Guidelines for Management Involving Grizzly Bears in the Greater Yellowstone Area. We appreciate the cooperation, including the extension of time, your staff has given us in meeting our joint responsibility under the Endangered Species Act.

Sincerely yours,

James C. Gritman

JAMES C. GRITMAN
Acting Regional Director

REFERENCE CITED

U.S. Forest Service. 1977. Method for determining grizzly bear habitat quality and estimating consequences of impacts on grizzly habitat quality. Prepared by Stephen P. Mealey. Northern Region Contract No. 11-1200. Missoula, Montana. Multilith. 47 pp.

UNITED STATES DEPARTMENT OF AGRICULTURE, UNITED STATES DEPARTMENT OF THE INTERIOR AND STATES OF IDAHO, MONTANA, WYOMING, AND WASHINGTON
MEMORANDUM OF AGREEMENT TO REVISE AND EXPAND THE INTERAGENCY GRIZZLY BEAR COMMITTEE

A. Need:

The grizzly bear is listed as a threatened species in the 48 conterminous States under provisions of the Endangered Species Act of 1973, as amended. To achieve the recovery of the grizzly bear, it is necessary that all Federal and State agencies with responsibilities for this species coordinate their management and research actions to the greatest extent possible to insure the best utilization of available resources and prevent duplication of effort.

To attain the objectives established by the Grizzly Bear Recovery Plan, the United States Department of Agriculture (U.S. Forest Service), the United States Department of the Interior (Fish and Wildlife Service, National Park Service, Bureau of Land Management, Bureau of Indian Affairs), and the States of Idaho, Montana, Wyoming, and Washington find it in the best interest of the grizzly bear to revise and expand the Interagency Grizzly Bear Committee (IGBC) established in April 1983).

B. Organization:

Members

3 Regional Foresters, USDA Forest Service
1 Regional Director, National Park Service
1 Regional Director, U.S. Fish and Wildlife Service
1 State Director, Montana, Bureau of Land Management
1 State of Idaho Representative)
1 State of Montana Representative) Named by
1 State of Wyoming Representative) Appropriate Governor
1 State of Washington Representative)

Advisor

Grizzly Bear Recovery Coordinator, U.S. Fish and Wildlife Service

Invitees

In addition to the members specified above, the following parties involved with the grizzly bear management and research in the State of Washington may participate in the committee and attend committee meetings: Regional Forester, National Park Service Regional Director, and the Fish and Wildlife Service Regional Director. The Bureau of Indian Affairs Area Directors from Portland, Oregon and Billings, Montana and representatives from the Canadian Provinces of British Columbia and Alberta also are invitees to committee and subcommittee meetings.

Subcommittees

Yellowstone Ecosystem
- National Park Superintendent (2)
- National Forest Supervisor (5)
- State Representatives from Wyoming, Montana and Idaho
- U.S. Fish and Wildlife Service Representatives (2)

Northern Continental Divide Ecosystem
- National Park Superintendent (1)
- National Forest Supervisor (5)
- State Representative from Montana
- U.S. Fish and Wildlife Service Representative (1)
- Bureau of Indian Affairs and/or Tribal Representative from each Indian Reservation (2)
- Bureau of Land Management Representative, Montana (1)
- Canadian Representatives

Northwest Ecosystems
- National Park Superintendent (1)
- National Forest Supervisors (5-7)
- State Representatives from Montana, Idaho, and Washington
- U.S. Fish and Wildlife Service Representatives (2)
- Canadian Representative

Research
- U.S. Fish and Wildlife Service Representative
- U.S. Forest Service Representative
- National Park Service Representative
- States of Idaho, Montana, Washington, and Wyoming Representatives
- Bureau of Indian Affairs and/or Tribal Representative(s)
- Bureau of Land Management Representative
- Canadian Representatives
- (Existing Interagency Grizzly Bear Study Team to continue under Research Subcommittee.)

C. IGBC Operation:

1. Chairmanship of the IGBC shall rotate among representatives with the chairman serving a 2-year term, beginning with the representative of the U.S. Fish and Wildlife Service. Chairmen of the Research Subcommittee and Yellowstone, Northern Continental Divide and Northwest Ecosystems Subcommittees will be elected by Subcommittee members for 2-year terms.

2. Meet a minimum of twice per year, with additional meetings as needed and agreed to by majority of Committee.

D. IGBC Committee Responsibilities:

1. Implement the Grizzly Bear Recovery Plan, and all management and research activities necessary to provide for recovery of the grizzly bear.

2. Make provision for implementation of approved actions.

3. Guide and plan research direction.

4. Evaluate implementing activities to determine the effectiveness of achieving recovery plan objectives.

5. Take appropriate action under existing authority where necessary and make joint recommendations to Federal agency heads and States.

6. Review and approve or disapprove actions proposed by Subcommittees.

E. Northern Continental Divide Ecosystem, Yellowstone Ecosystem, and Northwest Ecosystems Subcommittee Responsibilities:

1. Implement management actions in a coordinated fashion.

2. Propose management policy to the IGBC.

3. Establish necessary task forces to implement approved actions when necessary (i.e., law enforcement, information and education, improvements).

4. Identify research needs and financial needs for management and submit to the IGBC.

5. Report to IGBC on progress concerning management actions necessary for grizzly bear recovery.

F. Research Subcommittee Responsibilities:

1. Identify and propose needed research programs to the IGBC as directed by the Grizzly Bear Recovery Plan.

2. Coordinate and direct needed research activities approved by IGBC.

3. Review and develop research plans to assure that they adequately address research needs and that the objectives, methods, analyses, timetables, and budgets are valid and realistic.

4. Establish ad hoc task forces to examine and report on special topics as approved by IGBC.

5. Review research findings and reports for scientific validity and make recommendations to IGBC on their adequacy or relevance for assisting management decisions. Circulate these reports for peer review when necessary.

John B. Crowell, Jr. — 5 January 1984
U.S. Department of Agriculture
Assistant Secretary for Natural Resources and Environment

G. Ray Arnett — 5 Dec 83
U.S. Department of the Interior
Assistant Secretary for Fish and Wildlife and Parks

Garrey E. Carruthers — 12/31/83
U.S. Department of the Interior
Assistant Secretary - Land and Water Resources

Kenneth L. Smith — 1/4/84
U.S. Department of the Interior
Assistant Secretary for Indian Affairs

John V. Evans — 2-6-84
State of Idaho

Ted Schwinden — 2/1/84
State of Montana

3/21/84
State of Washington

4/5/84
State of Wyoming