

Grizzly Bear Recovery in the Bitterroot Ecosystem



SUMMARY of the
Final Environmental
Impact Statement

◆ U.S. Department of Interior
◆ Fish and Wildlife Service

March 2000

FINAL
ENVIRONMENTAL IMPACT STATEMENT

**GRIZZLY BEAR RECOVERY IN
THE BITTERROOT ECOSYSTEM**

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Bitterroot Grizzly Bear EIS
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March 2000

SUMMARY

Introduction

This summary of the Final Environmental Impact Statement (FEIS) describes 6 alternatives that represent different approaches to grizzly bear recovery and management in the Bitterroot Ecosystem (BE) of central Idaho and western Montana. The process used to develop alternatives, and the environmental consequences of implementing each alternative are described. Four alternatives involve reintroducing grizzly bears from other areas in the United States and Canada to the BE: Alternative 1 - "Restoration of Grizzly Bears as a Nonessential Experimental Population with Citizen Management;" Alternative 1A - "Restoration of Grizzly Bears as a Nonessential Experimental Population with USFWS Management;" Alternative 4 - "Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and Habitat Restoration;" and Alternative 4A - "Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and USFWS Management." Alternative 2 - "The No Action Alternative: Natural Recovery" allows natural recovery of grizzly bears in the BE through range expansion from existing populations. And Alternative 3 - "The No Grizzly Bear Alternative" prevents grizzly bear recovery in the BE. These alternatives were developed in response to public comments and represent a full range of alternatives for consideration. All issues and concerns identified by the public were considered and the most significant were analyzed in detail. The potential effects of each alternative on human health and safety, source grizzly bear populations, land-use activities, wildlife populations, public access and recreational use, social aspects, and regional economies are described.

Important

A 30-day public review period of the FEIS extends from March 24, 2000 to April 24, 2000. Public comments are welcome, and must be postmarked by April 24, 2000. Comments may be mailed or faxed to the address below, or sent via e-mail to: fw6_bitterroot@fws.gov. Public comments will be reviewed, and a Record of Decision will be prepared and released to the public. Copies of the FEIS have been sent to public libraries in Montana and Idaho. In addition, several hundred copies of the FEIS were sent to organizations or individuals who represent people who may be significantly impacted by any decision. The FEIS and FEIS Summary document are also available on the internet at: <http://www.r6.fws.gov/endspp/grizzly>. Those wishing to review the complete Final Environmental Impact Statement, or needing further information should contact:

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PURPOSE OF AND NEED FOR THE ACTION

Purpose. Grizzly bears (*Ursus arctos horribilis*) are a part of America's rich wildlife heritage and once ranged throughout most of the western United States. However, distribution and population levels of this species have been diminished by excessive human-caused mortality and loss of habitat. Today, only 800 to 1000 grizzly bears remain in a few populations in Montana (Northern Continental Divide, Yellowstone, and Cabinet-Yaak Ecosystems), Idaho (Yellowstone, Cabinet-Yaak, and Selkirk Ecosystems), Wyoming (Yellowstone Ecosystem), and Washington (Selkirk and North Cascades Ecosystems). Wildlife species, like grizzly bear, are most vulnerable when confined to small portions of their historical range and limited to a few, small populations. Expansion of the range of the species will increase the number of bears within the lower 48 states and increase habitat size and extent, and further conservation of the species.

The Bitterroot Ecosystem (BE) is one of the largest contiguous blocks of federal land remaining in the lower 48 United States. The core of the ecosystem contains two wilderness areas which make up the largest block of wilderness habitat in the Rocky Mountains south of Canada. Of all remaining unoccupied grizzly bear habitat in the lower 48 States, this area in the Bitterroot Mountains has the best potential for grizzly bear recovery, primarily due to the large wilderness area. As such, the BE offers excellent potential to recover a healthy population of grizzly bears and to boost long-term survival and recovery prospects for this species in the contiguous United States.

The U. S. Fish and Wildlife Service (USFWS), with support of the Interagency Grizzly Bear Committee (IGBC is a group of high-level administrators that represent the federal and state agencies involved in grizzly bear recovery, and coordinate agency efforts in implementing the Grizzly Bear Recovery Plan), proposes to recover the grizzly bear and restore this component of the BE by reestablishing the species within this portion of its historical range. The USFWS has determined that there are no grizzly bears in the BE at this time, that recovery of grizzly bears in the BE would facilitate conservation and recovery of the species in the lower 48 States, and that recovery of grizzly bears in the BE would require reintroduction of bears from other areas (USFWS 1993, 1996, 1997). The action proposed in the FEIS (USFWS 2000) is to reintroduce a minimum of 25 grizzly bears over a 5-year period from which a population could grow over time.

Need. The grizzly bear was listed as a threatened species in the lower 48 States under the Endangered Species Act (ESA) in 1975 (Federal Register, V.40, No.145, Part IV-3173-4). As such, the U.S. Fish and Wildlife Service was mandated by Congress to conserve listed species and the ecosystems upon which they depend.

The USFWS is the primary agency responsible for recovery and conservation of threatened species, including grizzly bears in the U.S. The Revised Grizzly Bear Recovery Plan (USFWS 1993) and the Bitterroot Ecosystem Recovery Plan Chapter - Supplement to the Grizzly Bear Recovery Plan (USFWS 1996) identify actions necessary for conservation and recovery of the species. The ultimate goal of the plan is removal of the species from threatened status in the conterminous 48 States.

LOCATION OF THE PROPOSED ACTION

This project involves the area defined as the Bitterroot Ecosystem of central Idaho and western Montana in the northern Rocky Mountains. The analysis area considered in the Final EIS is referred to as the Bitterroot

Grizzly Bear Primary Analysis Area (PAA) and includes USDA Forest Service lands potentially affected by grizzly bear recovery in the BE of Idaho and Montana (Figure S-1). The heart of the PAA is centered around Wilderness Areas of central Idaho, while a small portion extends over the crest of the Bitterroot Mountains into western Montana.

The PAA includes about 16,686,596 acres (26,073 square miles) of contiguous national forest lands including all or parts of the Bitterroot, Boise, Challis, Clearwater, Lolo, Nez Perce, Payette, Sawtooth, Salmon, and Panhandle National Forests. The center of the area is characterized by 3 large wilderness areas covering a contiguous area of almost 4 million acres (6,250 mi²). These include the Frank Church-River of No Return (2,361,767 acres; 3,690 mi²), the Selway-Bitterroot (1,340,681 acres; 2,095 mi²), and the Gospel Hump (200,464 acres; 313 mi²) Wilderness Areas. The area contains 3 major mountain ranges; the Salmon River Mountains (south of the Salmon River), the Clearwater Mountains which extend from the Salmon River north to the upper Clearwater River drainage, and the Bitterroot Mountains which form the eastern border of the PAA along the Montana-Idaho state line.

Table S-1 presents the basic information about the Bitterroot Ecosystem PAA. It describes the area and may be useful in understanding potential impacts of grizzly bear recovery. This information represents the situation that currently exists without grizzly bears in the BE.

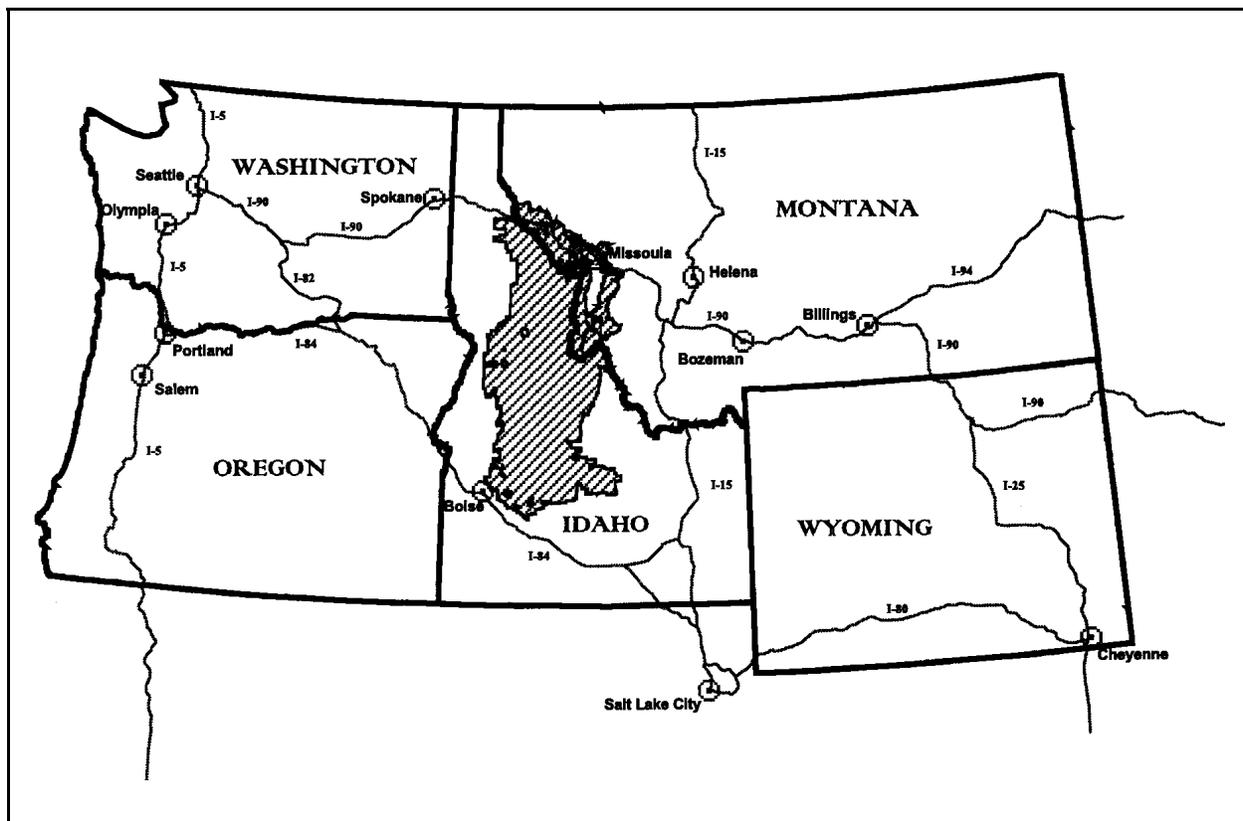


Figure S-1. Regional perspective showing the analysis area considered in the Final Environmental Impact Statement for Grizzly Bear Recovery in the Bitterroot Ecosystem.

Table S-1. A summary of the key characteristics of the Bitterroot Grizzly Bear Primary Analysis Area (PAA) which could potentially be affected by grizzly bear recovery.

Characteristic	Central Idaho	Western Montana
Land (in the 14-county area that encompasses the PAA)		
Acres	22,687,424	5,740,560
% Federal Ownership	80	59
% Private ownership	15	38
% National Park, Wilderness, or Wildlife Refuge	17	trace
Public land uses ^a		
Recreational visits/year to national forest lands in the PAA	8,576,995	4,691,400
Acres open to grazing on national forests included in the PAA	4,467,571	348,400
Acres suitable for timber harvest in national forests included in the PAA	4,387,831	1,602,331
Acres of timber projected for harvest annually on national forests included in the PAA	44,368	13,618
Total miles of system roads on national forest lands in the PAA	17,111	9,053
Miles of year-round open system roads on national forest lands in the PAA	7,448	4,114
Miles of closed or restricted access system roads on national forest lands in the PAA	9,664	4,939
Total miles of recreational trails on national forest lands in the PAA	12,439	2,350
Miles of recreational trails open to motorized vehicles in the PAA	6,073	1,474
People/Land Economy (in the 14-county area)		
Population (numbers)	105,234	135,694
Population (people/mi. ²)	3.0	15.1
Total personal income for <u>Idaho and Montana</u> portions of the PAA (billions of dollars)		4.6
Average per capita income for <u>Idaho and Montana</u> portions of the PAA (\$)		17,465.00
Farm income for <u>Idaho and Montana</u> combined (% of total personal income)	0.7 (72% of this comes from livestock)	
Local services income for <u>Idaho and Montana</u> combined (% of total personal income)		41.5
Other Industry income for <u>Idaho and Montana</u> combined (% of total personal income)		21.4
Other non-earned ^b income for <u>Idaho and Montana</u> combined (% of total personal income)		36.5
Livestock		
Numbers of cattle in the 14-county area (spring) of the PAA	318,967	72,560
Number of sheep in the 14-county area (spring) of the PAA	41,687	7,358
Number of livestock on national forest allotments in the PAA (May through October)		
Adult cattle and calves	64,589	4,222
Adult sheep and lambs	229,188	0
Horses	95	9
Total livestock	294,732	4,231
Estimated current livestock mortality in the PAA and surrounding counties from all causes per year based upon spring cattle and sheep numbers ^c :		
cattle	12,314 3.3% loss (69% calf)	
sheep	9,366 16.8% loss (~72% lambs)	
horses	unknown, very low	

(Continued)

Characteristic	Central Idaho	Western Montana
Ungulate Populations (postharvest estimates)		
Elk	88,047	4,861
Deer (mule & white-tailed)	>160,337	21,750
Moose	1,700	-
Bighorn Sheep	1,330	280
Mountain goat	1,573	178
Total ungulate population	252,987	27,069
Ungulate Annual Harvest		
Elk	6,149	934
Deer (mule & white-tailed)	17,184	3,480
Moose	182	13
Bighorn sheep	33	9
Mountain goat	27	12
Total ungulate harvest	23,575	4,448
Percent of ungulate population harvested	9	16
Estimated ungulates dying/year (all causes) ^d	182,509	16,977
Percent of mortality attributable to hunting	13.0	26.0

^a A wide variety of land-use restrictions (seasonal and permanent) are employed on public lands throughout the PAA for protection of natural resources and public safety including: on motorized vehicles, construction of structures, animal damage control activities, big game winter range, calving areas, security and migration habitat, raptor nest sites, endangered species, erosion control, wetland protection, to provide a variety of outdoor experiences (motorized or nonmotorized, wilderness or developed, etc.).

^b Non-earned income represents investments, entitlements, and retirement income that often does not depend on where a person lives. The growth of this segment of the economy over the last 2 decades results from people with this type of income moving into central Idaho and western Montana because these areas are perceived to have a lifestyle that people want to participate in (wild spaces, abundant wildlife, less crowding, low crime, clean air, etc.).

^c Source: U.S. Fish and Wildlife Service. 1994. The reintroduction of gray wolves to Yellowstone National Park and central Idaho. Final Environmental Impact Statement. U.S. Fish and Wildlife Service, Helena, MT.

^d Including hunting, crippling loss, poaching, road kill, predation, disease, starvation, drowning, winter kill, accidents, fighting, etc.

THE PLANNING PROCESS

One of the first steps in the planning process was to develop a public participation and interagency coordination program to identify issues related to grizzly bear recovery in the BE and alternatives to be considered in the National Environmental Policy Act (NEPA) process. Natural resource and public use information was gathered. Previous plans and reports dealing with grizzly bear recovery were reviewed. The USFWS is solely responsible for the FEIS, although representatives from the USDA Forest Service, Idaho Department of Fish and Game, Montana Department of Fish, Wildlife, and Parks, and Nez Perce Tribe assisted in preparation. Participation and review by representatives of other agencies does not imply concurrence, endorsement, or agreement to any recommendations, conclusions, or statements in the FEIS.

Issue Scoping

Seven public scoping sessions, in the form of open houses were held in Grangeville, Orofino, and Boise in Idaho; Missoula, Helena, and Hamilton in Montana; and Salt Lake City, Utah; from July 5 to 11 with a 45-day public comment period on the proposal ending July 29, and extended to August 21, 1995. Written comments on preliminary issues and alternatives were received from more than 3,300 individuals, organizations and government agencies. About 80 percent of written responses were from residents of counties in Idaho and Montana adjacent to the proposed recovery areas. All issues were considered,

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organized into 46 separate headings, and addressed by the USFWS as follows.

Twenty-six issues and impacts were addressed / included as part of one or more alternatives:

Management Strategies	Laws, Restrictions, Rights, Authority
Strategies to Control Nuisance Bears	Federal, State, Local, and Tribal Authority
Illegal Killing of Grizzly Bears	Compliance with Forest Plans
Recovery Area (Boundaries, Size, & Range)	Are Grizzly Bears Native to the Bitterroot Ecosystem
Recovery Time	Effects on Grizzly Bears from Human Incursions Outside Wilderness
Monitoring and Evaluation	Population Corridor Linkages
Nonessential Experimental Population & Area	Effects “to” Grizzly Bears (Genetics, Disease, Colonization, etc.)
Private Property Rights	Habitat Security
Endangered Species Act (ESA)	Cost of Program to Taxpayer
Ecosystem Management	Education
Grizzly Bears as a Missing Component of the Ecosystem	Political Influence
Definition of Population Viability for Grizzly Bears	Enjoyment of Grizzly Bears (Viewing, etc.)
Travel Corridors & Linkages (Range of Grizzly Bears)	
Habitat Protection Requirements	

Eleven issues/impacts (consolidated into 7 areas) were analyzed in detail in the EIS because they could be potentially impacted by grizzly bear recovery strategies:

Effects of Grizzly Bear Recovery on Human Health and Safety
Effects of Grizzly Bear Recovery on Source Populations of Grizzly Bears
Effects of Grizzly Bear Recovery on Land-Use Activities - to include Timber Harvest,
Minerals Extraction, and Livestock Grazing
Effects of Grizzly Bear Recovery on Wildlife
Effects of Grizzly Bear Recovery on Public Access and Recreational Use
Social Effects of Grizzly Bear Recovery
Economic Effects of Grizzly Bear Recovery

Nine issues/impacts were not evaluated further in the EIS because they were not significant to the decision being made: (Although these issues, as identified by the public, were not used to formulate alternatives or analyze effects, most are addressed within the FEIS and Appendices).

Consultation with Fish & Wildlife Service	Effects of Grizzly Bear on Other Animals, Fish, Birds, etc.
Interagency Grizzly Bear Committee Guidelines	Spiritual/Cultural
State or Private Bear Management Specialist Wilderness Act	Visitor Use
Effects of Grizzly Bear on Other Endangered Species	Miscellaneous

Alternative Scoping

The USFWS used preliminary issues identified from public comments received during scoping meetings for the BE Grizzly Bear Recovery Plan Chapter, and the Notice of Intent to complete an EIS for Grizzly Bear Recovery in the BE, to formulate three preliminary alternatives. Prior to conducting formal scoping meetings and a comment period, the USFWS proposed these three preliminary alternatives for consideration and published them in a Scoping of Issues and Alternatives brochure that requested ideas and comments from the public. The alternatives were: Alternative 1 - No Action (Natural Recolonization); Alternative 2 - Reintroduction of an Experimental Population (Proposed Action); and Alternative 3 - Accelerated

Reintroduction of a Standard (Fully Protected) Population.

Two new alternatives were suggested during the public scoping period. The first proposed alternative entitled The Citizen Management Committee Alternative was submitted by the National Wildlife Federation, Defenders of Wildlife, the Resource Organization on Timber Supply, and the Intermountain Forest Industry Association (USFWS 1995). The second alternative identified was the Alliance for the Wild Rockies Alternative, which was proposed by the Alliance (USFWS 1995).

Alternatives Identified During Scoping, not Evaluated in the DEIS, but Included in the FEIS.

Alternative 2 - "Reintroduction of an Experimental Population (Proposed Action)" was proposed by the USFWS during initial scoping for issues and alternatives. In response to public comment received during scoping, the USFWS modified this alternative from USFWS management of the experimental population to management by a Citizen Management Committee (as proposed by a coalition of non-governmental organizations). This modified alternative became Alternative 1, the proposed action of the DEIS. Public comment received on the DEIS indicated a desire for the originally scoped Alternative 2 to be evaluated in the FEIS. In response to this request, the Service included this alternative as Alternative 1A - "Restoration of a Nonessential Experimental Population with USFWS Management" in the FEIS.

Alternatives Identified During Scoping, but not Evaluated Further. Alternative 3 - "Accelerated Reintroduction of a Standard Population" that was identified in the scoping document, was not evaluated in the DEIS or FEIS. Securing 10 non-nuisance grizzly bears per year from similar habitat in the lower 48 States or southern British Columbia is not feasible because of a lack of a suitable number of bears from existing source populations. For this reason the alternative was eliminated.

Public Review of the Draft EIS

The Draft Environmental Impact Statement (DEIS) was released for public review and comment on July 1, 1997. A Notice of Availability was published in the Federal Register, the DEIS was mailed to the entire mailing list, and copies of the DEIS and Summary of the DEIS were mailed to over 60 local libraries in Idaho and Montana. The DEIS and the Summary of the DEIS were also published on the Service web site at: <http://www.r6/fws/gov/endspp/grizzly>. A news release announcing the availability of the DEIS and requesting public comment was provided to local and national media contacts (newspaper, television, radio). Comments were to be received through September 30. The comment period was extended to November 1 based on numerous requests for more time to prepare responses. The comment period was extended a second time to December 1, 1997 following a request from a member of the Idaho Congressional delegation. A press release announced each extension.

To provide an opportunity for people to voice their concerns, public hearings/open houses were held during October 1997 to gather public comments on the DEIS. These were held in seven communities on the perimeter of the Bitterroot area. Approximately 1400 people attended these hearings and 293 individuals testified. The dates and locations for the public hearings were as follows: Challis, Idaho and Hamilton, Montana (October 1); Missoula, Montana and Lewiston, Idaho (October 2); Boise, Idaho and Helena, Montana (October 3); and Salmon, Idaho (October 8). Hearings were conducted from 4 p.m. to 8 p.m. and verbal testimony (treated the same as written comments) was recorded and any written comments were accepted. In addition, the Service held meetings with local community, state leaders, and interest groups in communities around the perimeter of the proposed Recovery Area.

Summary of Final EIS

Comments on the DEIS were received from over 24,000 individuals, organizations, and government agencies. These comments arrived in over 2,660 letters, DEIS summary forms, resolutions, and hearing testimonies. Ten petitions were received with over 21,000 signatures. Fifteen form letters were identified.

An analysis of the public comments on the DEIS was performed by an interagency team of 14 employees from the Service and the USDA Forest Service during December - January 1998. The system used to analyze comments was objective, reliable and traceable. Every comment was given an individual identification number and was coded according to the demographic nature of the response. Substantive comments (positive and negative) on issues or alternatives were coded and entered into a database. A respondent's exact words were used when entering responses into the database. A detailed summary report, "*Summary of Public Comments on the Draft Environmental Impact Statement for Grizzly Bear Recovery in the Bitterroot Ecosystem*" and an executive summary report of 24,251 public comments were prepared and released to the public in April 1998 (U.S. Fish and Wildlife Service 1998). Issues raised during public comment on the DEIS were similar to the issues identified during public scoping.

All DEIS comments from federal, state, and local governments having regulatory authorities, and comments from Native American Tribes are printed in the FEIS. USFWS responses to those comment letters on the DEIS are also provided in the FEIS. Due to the volume of response, most letters from individuals and non-governmental agencies are not printed in the FEIS, but 18 letters from the most prominent or most vocal large private organizations, representing the diverse points of view about the proposal, are included and responded to in detail. Substantive issues identified through the analysis of public comments (USFWS 1998) and USFWS responses to these issues are also presented in the FEIS.

ALTERNATIVES ANALYZED IN THE FEIS

Four alternatives that represent different approaches to grizzly bear recovery and management were developed for evaluation in the DEIS because they encompassed most of the concerns raised during scoping, and they represented a full range of alternatives. Issues raised in public comments on the DEIS were to a great extent repetitive of those raised during initial scoping. The USFWS revised the FEIS to incorporate and be responsive to new issues and specific suggestions raised by the public, to the maximum extent possible. Two additional alternatives (Alternatives 1A and 4A) were added to the FEIS in response to public comments received on the DEIS. Two alternatives (Alternatives 2 and 3) do not necessarily meet the purpose of and need for action, but were included in the DEIS and FEIS to be responsive to public comments, to provide a full range of alternatives for consideration, and to meet the requirements of NEPA. All six FEIS alternatives reflect public comments and suggestions identified through issue and alternative scoping, and public comments on the DEIS. These alternatives are discussed in detail in the FEIS.

After a final review of the FEIS by government agencies, tribes, tribal agencies, special interest groups and the general public, the USFWS will summarize final public comments and select an alternative. The USFWS will revise the selected alternative, if necessary, based on public comment, and publish a Record of Decision documenting the USFWS rationale for the decision. The alternative selected for implementation will become the management plan for grizzly bear recovery in the BE.

The six alternatives considered in the FEIS are:

Alternative 1. Restoration of Grizzly Bears as a Nonessential Experimental Population with Citizen Management (The Proposed Action and Preferred Alternative):

The goal is to accomplish grizzly bear recovery by reintroducing grizzly bears designated as a nonessential experimental population to central Idaho and by implementing provisions within Section 10(j) of the ESA, conduct grizzly bear management to address local concerns. A Citizen Management Committee (CMC), created under a special rule to be published in the Federal Register, would be tasked with management of this grizzly bear population.

Alternative 1A. Restoration of Grizzly Bears as a Nonessential Experimental Population with USFWS Management :

The goal is to accomplish grizzly bear recovery by reintroducing grizzly bears designated as a nonessential experimental population to central Idaho and by implementing provisions within Section 10(j) of the ESA, conduct grizzly bear management to address local concerns. The U.S. Fish and Wildlife Service would manage this grizzly bear population.

Alternative 2. The No Action Alternative - Natural Recovery:

The goal is to allow grizzly bears to expand from their current range in north Idaho and northwestern Montana southward into central Idaho and western Montana, and to recolonize the BE. The ultimate goal is natural recovery of grizzly bears in the BE.

Alternative 3. The No Grizzly Bear:

This alternative would prevent grizzly bear recovery in the BE.

Alternative 4. Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and Habitat Restoration:

The goal is to achieve recovery through reintroduction and extensive habitat protection and enhancement to promote natural recovery. A ten member Scientific Committee would be established to define needs for additional research, develop strategies for reintroduction of bears, and monitor results of the program. The grizzly bear would have full status as a threatened species under the provisions of the ESA.

Alternative 4A. Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and USFWS Management:

The goal is to achieve recovery through reintroduction with the USFWS managing for recovery of the population. Other federal and state agencies and the Nez Perce Tribe would assist the USFWS with management activities. The grizzly bear would have full status as a threatened species under the provisions of the ESA.

Description and Impacts of the Proposed Action and Alternatives

Alternative 1. Restoration of a Grizzly Bears as a Nonessential Experimental Population with Citizen Management (Proposed Action and Preferred Alternative):

Summary.-- The purpose of this alternative is to accomplish grizzly bear recovery by restoring grizzly bears designated as a nonessential experimental population to central Idaho and implementing provisions within Section 10(j) of the ESA to conduct special management to address local concerns. A Citizen Management Committee (CMC) would be authorized management implementation responsibility for the Bitterroot grizzly bear experimental population.

"Experimental population" designation gives the USFWS more flexibility because such populations can be treated as "a species proposed to be listed" or "threatened" rather than "endangered." If a reintroduced population of grizzly bears is designated "experimental" and "nonessential" (refers to an experimental population whose loss would not likely reduce the survival of the species in the wild) under the ESA 10(j) amendment, other federal agencies are required only to confer with USFWS on federal activities that are likely to jeopardize the species. Management of a nonessential experimental population can thus be tailored to specific areas and specific local conditions, including meeting concerns of those opposed to reintroduction. Because reintroduced grizzly bears would be classified as a nonessential experimental population, the USFWS management practices can reduce local concerns about excessive government regulation on private lands, uncontrolled livestock depredation, excessive big game predation, and lack of State government and local citizen involvement in the program.

The Bitterroot Grizzly Bear Experimental Population Area (experimental population area), which includes most of central Idaho and part of western Montana (Figure S-2), would be established by the USFWS under authority of Section 10(j) of the ESA. This would include the area bounded by U.S. Highway 93 from its junction with the Bitterroot River near Missoula, Montana, to Challis, Idaho; Idaho Highway 75 from Challis to Stanley, Idaho; Idaho Highway 21 from Stanley to Lowman, Idaho; Idaho Highway 17 from Lowman to Banks, Idaho; Idaho Highway 55 from Banks to New Meadows, Idaho; U.S. Highway 95 from New Meadows to Coeur d'Alene, Idaho; and Interstate 90 from Coeur d'Alene, Idaho, to its junction with the Clark Fork River near St. Regis, Montana; and the Clark Fork River from its junction with Interstate 90 near St. Regis, to its confluence with the Bitterroot River near Missoula, Montana; and the Bitterroot River from its confluence with the Clark Fork River to its junction with U.S. Highway 93, near Missoula, Montana. The experimental population area encompasses approximately 25,140 square miles.

The best scientific evidence available indicates there are no grizzly bears in the experimental population area at this time (USFWS 1996). Ongoing grizzly bear monitoring efforts would continue. The USFWS would designate the Bitterroot Grizzly Bear Recovery Area (recovery area) to consist of the Selway-Bitterroot Wilderness and the Frank Church-River of No Return Wilderness (Figure S-2). The recovery area contains approximately 5,785 square miles.

The USFWS has developed an expected time line to commence implementation of this alternative and the associated sanitation efforts to minimize conflicts. The first year of implementation would be a "phase-in" year during which sanitation equipment would be installed in key areas, and information and education outreach programs would be initiated. The FEIS includes an independent report that lists sites within the BE where sanitation problems exist, and these wildlife attractant sites would be targeted for clean-up.

During the first few months of implementation, a Citizen Management Committee (CMC) would be formed. The CMC would be authorized management implementation responsibility by the Secretary of Interior (in consultation with the governors of Idaho and Montana) for the Bitterroot grizzly bear nonessential experimental population. The CMC would be comprised of local citizens and agency representatives from

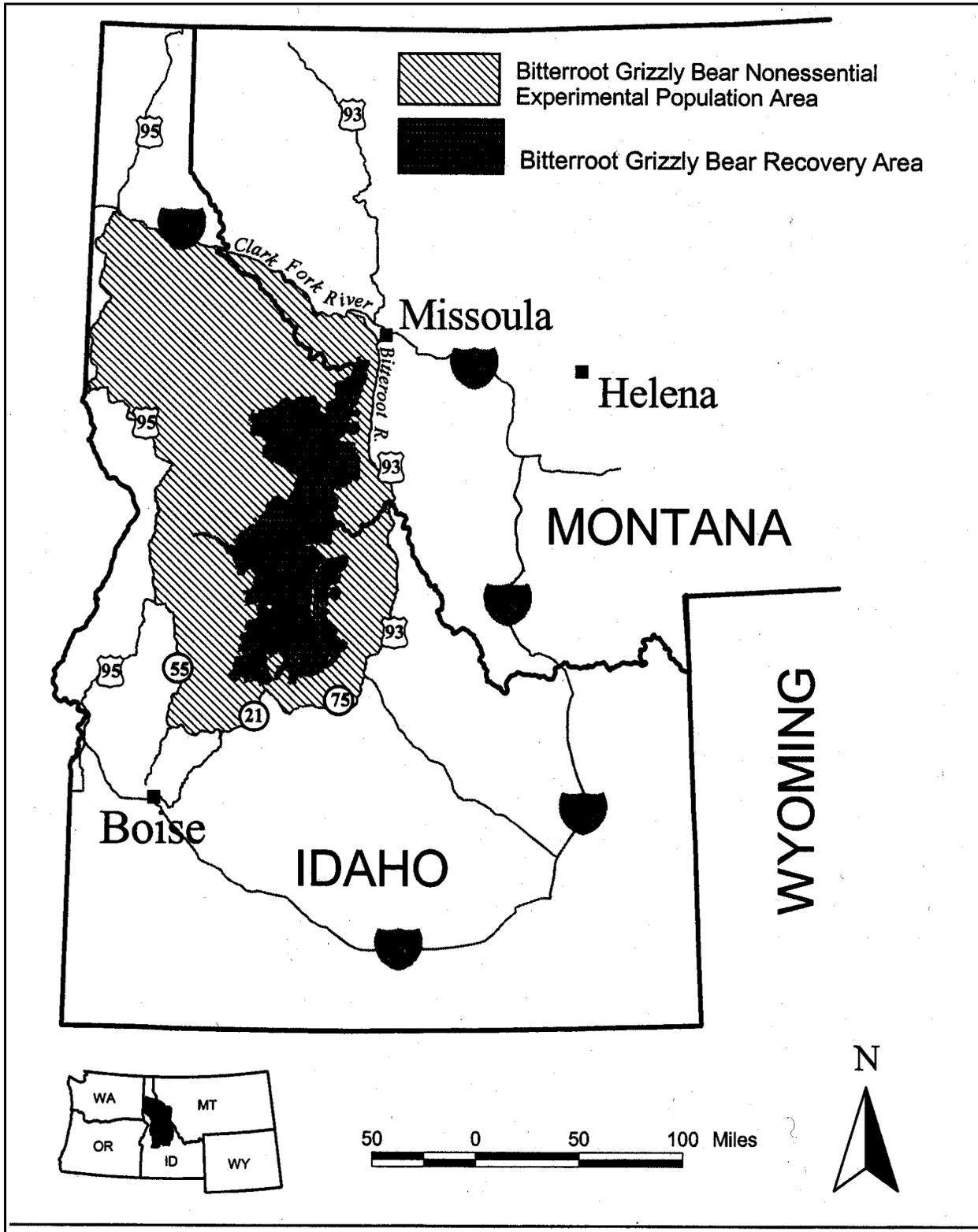


Figure S-2. Bitterroot Grizzly Bear Experimental Population Area and Recovery Area for Alternative 1 - Restoration of Grizzly Bears as a Nonessential Experimental Population with Citizen Management.

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federal and state agencies and the Nez Perce Tribe. Two scientific advisors would be appointed by the Secretary to the CMC as non-voting members, to attend all meetings and provide scientific expertise in support of CMC management recommendations. Grizzly bear management would allow for resource extraction activities to continue without formal Section 7 consultation under Section 7(a)(2) of the ESA. The CMC would be responsible for recommending changes in land-use standards and guidelines as necessary for grizzly bear management. Recommendations made by the CMC to land and wildlife management agencies would be subject to review and final decisions on implementation would be made by the responsible agency. All decisions of the CMC including components of its management plans must lead toward recovery of the grizzly bear and minimize social and economic impacts to the extent practicable within the context of the existing recovery goals for the species.

Grizzly bears would be reintroduced into the Selway-Bitterroot Wilderness portion of the recovery area during the second year of implementation. Specific reintroduction sites would be recommended by the management agencies to the CMC. The recovery area would be identified as the area of recovery emphasis. This means grizzly bear management decisions in the recovery area would favor bear recovery, allowing this area to serve as core habitat for survival, reproduction, and dispersal of the recovering population. Bears moving outside the recovery area would be accommodated through management provisions in a Final Special Rule and through management plans and policies developed by the Citizen Management Committee, unless potential conflicts were significant and could not be corrected. The term “accommodate” means grizzly bears that move outside the recovery area onto public land in the experimental population area would not be disturbed unless they demonstrate a real and imminent threat to human safety or livestock.

People could continue to kill grizzly bears in self-defense or in defense of others, provided that such taking is reported within 24 hours to appropriate authorities. Grizzly bears would be managed according to grizzly bear guidelines except in the case of grizzly bears on private land who are killing livestock and could not be captured by management authorities. In such cases, landowners would be issued a permit by USFWS. Following issuance of a permit by the USFWS, the public would be allowed to harass, through non-injurious means, a grizzly bear attacking livestock (cattle, sheep, horses, and mules) or bees. A livestock owner may be issued a permit to kill a grizzly bear killing or pursuing livestock on private lands if it has not been possible to capture such a bear or deter depredations through agency efforts. If significant conflicts occurred between grizzly bears and livestock within the experimental population area, these could be resolved in favor of the livestock by agencies capturing or eliminating the bear depending on the circumstances.

There would be no federal compensation program, but compensation from existing private funding sources would be encouraged. Animal control toxicants lethal to bears are not used on public lands within the recovery and experimental population areas. It is anticipated that ongoing animal damage control activities would not be affected by grizzly bear recovery. Any conflicts or mortalities associated with these activities would result in a review by the CMC, and any necessary changes would be recommended by the CMC.

Implementation of Alternative 1 would involve.-- The following summary highlights the actions that would be implemented if Alternative 1 (preferred alternative) is selected:

- ! If this alternative is selected the “*ESA Final Special Rule for Establishment of a Nonessential Experimental Population of Grizzly Bears in the Bitterroot Area of Idaho and Montana*” would be finalized and published in the Federal Register. Implementation of actions described in the FEIS would not occur until after the Special Rule is published in the Federal Register.
- ! The USFWS would designate much of central Idaho and part of western Montana (see description above) as the Bitterroot Grizzly Bear Experimental Population Area for grizzly bear recovery (Figure

- S-2).
- ! The USFWS would designate the Bitterroot Grizzly Bear Recovery Area for recovery emphasis to consist of the Selway-Bitterroot Wilderness and the Frank Church-River of No Return Wilderness (Figure S-2). If in the future, new wilderness areas are designated adjacent to the recovery area, the Citizen Management Committee could recommend their addition to the recovery area. This is the area where recovery would be emphasized. The term *recovery emphasis* means grizzly bear management decisions in the recovery area would favor bear recovery so that this area could serve as core habitat for survival, reproduction, and dispersal of the recovering population. Grizzly bears would only be released in the Selway-Bitterroot Wilderness, unless the CMC determines that reintroduction in the Frank Church-River of No Return Wilderness is appropriate. Specific relocation sites would be recommended by the management agencies to the CMC.
 - ! The USFWS would authorize a 15-member Citizen Management Committee (CMC) to be appointed by the Secretary of Interior in consultation with the governors of Idaho and Montana, and the Nez Perce Tribe. This committee would be authorized management implementation responsibility by the Secretary of Interior, in consultation with the governors of Idaho and Montana, for the Bitterroot grizzly bear nonessential experimental population. All decisions of the CMC must lead to recovery of the grizzly bear in the BE. The Committee must consult with scientists to ensure that scientific information is considered in its decision making.
 - ! CMC members would serve six-year terms and would consist of seven individuals appointed by the Secretary of Interior based on the recommendations of the governor of Idaho, five members appointed by the Secretary of Interior based on recommendations of the Governor of Montana, one member appointed by the Secretary based on the recommendation of the Nez Perce Tribe, one member representing the USDA Forest Service appointed by the Secretary of Agriculture or his/her designee, and one member representing the USFWS appointed by the Secretary of Interior or his/her designee. Members recommended by the Governors of Idaho and Montana would be based on recommendations of interested parties and would include at least one representative each from the appropriate state fish and wildlife agencies. If either governor failed to make recommendations, the Secretary would accept recommendations from interested parties. In their recommendations to the Secretary, the Governors of Idaho and Montana would attach written documentation of the qualifications of those nominated relating to their knowledge of and experience in a variety of natural resource issues and relating to their commitment to collaborative decision making.
 - ! The CMC would consist of a cross-section of interests reflecting a balance of viewpoints, be selected for their diversity of knowledge and experience in natural resource issues, and for their commitment to collaborative decision making. Except for representatives from federal agencies, the CMC would be selected from communities within and adjacent to the recovery and experimental population areas. The CMC would continue until the recovery objectives were met and the Secretary of Interior completed delisting. Management authority would then revert to the state wildlife agencies. The specific duties and responsibilities of the CMC would be described in the Final Special Rule. Specific details on how the CMC would make decisions are not included in the FEIS so as to maintain flexibility for the CMC to establish operational and decision-making processes after they are established.
 - ! The Secretary of Interior would appoint two scientific advisors as non-voting members to attend all meetings of the CMC and to provide scientific expertise in support of CMC management recommendations. The Secretary would contact the Wildlife Society Chapters in Idaho and Montana

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and the Universities of Idaho and Montana for nominations of one wildlife scientist from each state, and would appoint them as advisors to the CMC.

- ! The mission of the CMC would be to facilitate recovery of the grizzly bear in the Bitterroot Ecosystem by assisting in implementing the Bitterroot Chapter of the Recovery Plan. Regarding the land and wildlife management agencies, the role of the CMC would be to make recommendations to them that the CMC thinks would lead to recovery of the grizzly bear. Decisions on, and implementation of these recommendations is the responsibility of the land and wildlife management agencies.
- ! The CMC would meet a minimum of two times per year and meetings would be open to the public. Additionally, the committee would provide reasonable public notice of meetings, produce and provide written minutes of meetings to interested persons, and involve the public in its decision-making process. This public participation process would allow members of the public and/or special interest groups to have input to CMC decisions and management actions.
- ! The CMC would be directed to implement the Bitterroot Chapter of the Grizzly Bear Recovery Plan (USFWS 1996) as consistent with the *“ESA Final Rule 10(j) Establishment of a Nonessential Experimental Population of Grizzly Bears in the Bitterroot Area of Idaho and Montana.”* The CMC would develop recommendations on existing management plans and policies of land and wildlife management agencies, as necessary, for the management of grizzly bears in the experimental population area. The CMC could make recommendations to land and wildlife management agencies regarding changes to plans and policies, but the final decision on implementation of those recommendations would be made by those agencies. If the CMC recommendations require significant changes to existing plans and policy, then the requirements of NEPA may apply. All decisions of the CMC must lead to recovery of the grizzly bear in the BE and minimize social and economic impacts to the extent practicable within the context of the existing recovery goals for the species.
- ! The CMC would base its decisions on the best scientific and commercial data available. The CMC would develop a process for obtaining the best biological, social, and economic data, which would include an explicit mechanism for peer-reviewed, scientific articles to be submitted to and considered by the CMC, as well as periodic public meetings in which qualified scientists could submit comments to and be questioned by the CMC. The two Scientific Advisors would lead this process. To increase public participation and input in their decision-making process, the CMC could consider holding periodic public hearings, or sponsor public surveys to gather public comments and opinions on management issues and concerns regarding the Bitterroot grizzly bear population.
- ! The Secretary of Interior or the USFWS representative on the CMC would be directed to review the plans and efforts of the CMC. If the Secretary determines, through the USFWS representative on the CMC, that the decisions of the CMC, the management plans, or the implementation of those plans are not leading to the recovery of the grizzly bear within the experimental population area or are not in compliance with the Special Rule, the USFWS representative on the CMC would solicit from the CMC a determination whether the decision, the plan, or implementation of components of the plan are leading to recovery or why the CMC believes it is in compliance with the Special Rule. Notwithstanding a determination by the CMC that a decision, plan, or implementation of a plan is leading to recovery of the grizzly bear within the experimental population area or is in compliance with the Special Rule, the Secretary, who necessarily retains final responsibility and authority for implementation of the Act, may find that the decision, plan, or implementation of a plan is inadequate for recovery or is not in compliance with the rule, and may resume management responsibility.

- ! The Secretary of Interior may resume lead management implementation responsibility from the CMC if he/she determines their decisions are not leading to recovery, through the following procedure. The USFWS representative would consider CMC input before making any determination that CMC actions are not leading to recovery. If the USFWS representative on the CMC determines the actions of the CMC are not leading to recovery of the Bitterroot population, the USFWS representative would recommend alternative or corrective actions and provide six months for the CMC to accomplish them.

If the CMC rejects those alternatives, the USFWS representative would convene a Scientific Review Panel of three. The USFWS representative would submit for peer review to the panel those CMC actions or decisions upon which the USFWS representative based his/her decision that CMC actions or decisions are not leading to recovery or are at variance with the Special Rule. The USFWS representative would consider the views of all CMC members prior to making a recommendation on initiating a Scientific Review Panel. Members of the panel would be professional scientists who have had no involvement with the CMC and would not be employed by Federal agencies responsible for grizzly bear recovery efforts. The Secretary would select one member of the panel, and the Governors of Idaho and Montana in consultation with the Universities of Idaho and Montana (respectively) would select one panel member each.

The Scientific Review Panel would review issues and make timely recommendations to the CMC as to whether CMC actions are in compliance with the Special Rule. Examples of CMC actions or lack of actions, decisions, and/or processes that may be evaluated by the Scientific Review Panel include, but are not limited to: sufficiency of public involvement in CMC activities; specific decisions involving sanitation and outreach activities; management of nuisance bears; adequacy of recommendations to land and game management agencies; and adequacy of CMC actions in addressing issues such as excessive human-caused grizzly bear mortality, and other actions that are important in leading to recovery of the grizzly bear in the BE. The basis for their recommendations would be adherence of the CMC to the Special Rule.

If, after timely review, the CMC rejects the recommendations of the Scientific Review Panel, and the USFWS representative determines the CMC actions are not leading to recovery of the Bitterroot population, he/she would notify the Secretary. The Secretary would consider the panel's recommendations, and if he/she decides to resume lead management responsibility, he/she would seek consultation with the Governors of Idaho and Montana to review with them the reasons for his/her decision, and further attempt to resolve the discrepancies between his/her suggested alternatives and the actions or decisions of the CMC.

If the Secretary resumes lead management responsibility, he/she would take appropriate actions to assure there is an adequate regulatory process relating to Department of Interior management of grizzly bears, and would publish a Notice in the Federal Register explaining the rationale for the determination and notify the Governors of Idaho and Montana. The CMC would disband and all requirements identified in the Special Rule regarding the CMC would be nullified. If the Secretary does not resume lead management responsibility, the CMC would continue until the recovery objectives have been met and the Secretary has completed delisting

- ! Grizzly bear recovery would be emphasized in the recovery area, but bears moving outside the recovery area would be accommodated through management provisions in the Special Rule and through management plans and policies developed by the CMC, unless potential conflicts were significant and could not be corrected. In this case, the CMC would develop strategies to discourage grizzly bear occupancy in those portions of the experimental population area. The term *accommodate* means grizzly

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bears that move outside the recovery area onto public land in the experimental population area would not be disturbed unless they demonstrate a real and imminent threat to human safety or livestock.

- ! Unless the CMC would determine otherwise, private lands outside the national forest boundary in the Bitterroot Valley (lands outside the Bitterroot Forest boundary south of U.S. Highway 12 to Lost Trail pass) would be an area where any human/grizzly conflicts would be considered significant. Grizzly bear occupancy would be discouraged in these areas and grizzly bears would be captured and returned to the recovery area or destroyed depending on the history of each bear. If a grizzly bear enters this exclusion area, state and federal wildlife management agencies would attempt to capture it and notify the public immediately of its presence. The public would be updated until the bear is caught. Further, any grizzly bear that occupies inhabited human settlement areas on private land within the experimental population area that in the judgement of the management agencies/CMC presents a clear threat to human safety or where there is indication that it may become habituated to humans, may be relocated by management agencies. This is to prevent conflicts and possible bear-human injury or the death of bears, and to promote and enhance public safety.
- ! Grizzly bear management in the experimental population area would allow for resource extraction activities to continue without formal ESA Section 7 consultation. This is because under ESA Section 10(j)(c) nonessential experimental populations are treated under ESA Section 7(a)(2) as “proposed” species, and thus federal agencies are not required to formally consult with USFWS on management actions. Federal agencies are only required to confer with USFWS on activities the agencies believe might jeopardize the existence of the species. The CMC would be responsible for recommending changes in land-use standards and guidelines in the BE as necessary for grizzly bear management.
- ! All ESA Section 9 “takings” provisions under the ESA for the nonessential experimental population of grizzly bears in the BE would be included in the Final Special Rule. People would continue to be allowed to take a grizzly bear in self-defense or defense of others, provided that such taking is reported within 24 hours to appropriate authorities. Livestock owners would be allowed to take a grizzly bear on private lands in the experimental population area to protect livestock actually pursued or being killed on private property, once a permit has been obtained, the response protocol established by the CMC has been satisfied, and efforts by the wildlife agency personnel to capture the depredated bear(s) have been unsuccessful.
- ! The USFWS would establish a tentative recovery goal of approximately 280 grizzly bears (bears distributed over approximately 5,785 mi² of designated wilderness and adjacent lands) occupying suitable habitat within the wilderness and adjacent lands (USFWS 1996). The CMC could recommend refined interim recovery goals and a final recovery goal for the Bitterroot Chapter of the Recovery Plan, based on the best available science, after grizzly bears were reintroduced and additional information was obtained on their use of the habitat. The recovery goal for the Bitterroot grizzly bear population would be consistent with habitat available within the recovery area. Additional adjacent areas of public land could be considered when setting the recovery goal if it is shown to be necessary by the best scientific and commercial data available. Any revised recovery goals developed by the CMC would require public review and USFWS formal approval as appropriate for any revision of any recovery plan. Grizzly bears outside the recovery area and within the experimental population area would contribute to meeting the recovery goal if there were reasonable certainty of their long-term occupancy in such habitats outside the recovery area.
- ! A minimum of 25 grizzly bears would be reintroduced into the recovery area over a period of 5 years,

until a colony of bears is established. Using the best scientific evidence available, and standards and criteria developed by the agencies and the CMC, the CMC would determine if bear reintroduction was successful after a period of at least 10 years. If based on these criteria and recommendations by the CMC, the Secretary after consultation with the CMC, states of Idaho and Montana and their fish and wildlife agencies, and the Nez Perce Tribe, concludes reintroduction has failed to produce a self-sustaining population, no more bears would be reintroduced. Any remaining bears would retain their experimental status.

- ! Idaho Department of Fish and Game (IDFG) and/or the Nez Perce Tribe, Montana Department of Fish, Wildlife, and Parks (MDFWP), and the USDA Forest Service (USFS), in coordination with the USFWS, would exercise day-to-day management responsibility within the experimental population area while implementing the BE Grizzly Bear Recovery Plan Chapter, the Special Rule, and the policies and plans of the CMC. Day-to-day management responsibility involves handling of nuisance bears, answering questions from the public, managing human foods and garbage to minimize their availability to bears, and other such activities. The USFWS and these cooperating agencies would share management responsibility as per agreements with, and in consideration of, recommendations from the CMC.

The USFWS, USFS, states of Idaho and Montana, and Nez Perce Tribe in cooperation with the CMC would release a minimum of 25 grizzly bears into the recovery area over a period of 5 years. Procedures would include:

- ! The first “phase-in” year of implementation before grizzly bears are reintroduced would include an intense sanitation and public education campaign. The sanitation program would include efforts by the USFS, permittees, and private landowners in and around the recovery area. Public education efforts would include: presentations at schools in and around the recovery area to teach children about grizzly bears and how to recreate safely in grizzly bear country; presentations to all civic clubs and interested organizations about grizzly bears and how to recreate safely in grizzly bear country; and placing of informative signs at all trail heads in and around the recovery area.
- ! Necessary federal permits, agreements, and archeological site clearances would be obtained and activities conducted for a scientifically based grizzly bear recovery program.
- ! Subadult grizzly bears of both sexes would be trapped each year for 5 years, from areas in Canada (in cooperation with Canadian authorities) and the United States that presently have healthy populations of grizzly bears living in habitats that are similar to those found in the Bitterroot Ecosystem. Three sources of grizzly bears for the BE have been identified: southeast British Columbia, the Northern Continental Divide Ecosystem (NCDE) population in northwest Montana, and the Yellowstone Ecosystem (YE) population. Under ESA Section 10(j), the Secretary of Interior may authorize the release of any population of an endangered or threatened species outside the current range of such species if the Secretary determines that the release will further the conservation of the species, and the population is wholly separate geographically from nonexperimental populations of the same species. Specific numbers of bears that could be obtained yearly from potential source populations is unknown at this time, and would be predicated on the yearly achievement of recovery (YE and NCDE) and management (British Columbia) objectives.
- ! Grizzly bears would be captured and reintroduced at the best time of year to optimize their survival. This would likely occur when grizzly bear food supplies in the BE are optimum. Each individual

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grizzly bear reintroduced would be radio collared and monitored to determine their movements and how they use their habitat, and to keep the public informed of general bear locations and recovery efforts.

Expected actions and effects of Alternative 1.-- See Tables S-2 and S-3 for a comparison of expected actions and effects of this alternative. The tentative recovery goal of this alternative is approximately 280 grizzly bears (USFWS 1996). Realistically, grizzly bear recovery in the BE could take a minimum of 50 years (4% growth rate), and given potential conflicts, could likely take more than 110 years (2% growth rate). Total annual implementation cost during the 5-year reintroduction period would be approximately \$433,632/year, and the total 5-year implementation cost would be approximately \$2,168,160. Annual costs for monitoring and citizen management would be approximately \$193,000 for each year beyond the 5-year reintroduction period.

A brief summary of effects: A recovered grizzly bear population would kill about 6 cattle (4-8) and 25 sheep (5-44) and up to 504 ungulates per year. This would not measurably impact ungulate populations or hunter harvest. Nuisance bear incidents could average 37 (0-74) per year. There would be no anticipated impacts to land use activities on public or private land to include timber harvest, mining, and public access/recreational use. Changes to hunting seasons could occur due to conflicts. Risk to human health and safety from a recovered grizzly bear population would be less than 1 injury per year and less than 1 human mortality every few decades. Economic analyses indicate grizzly bear recovery in the BE would lead to total net economic benefits of 40.4-60.6 million dollars per year. Total annual cost would include an implementation cost of \$193,000 and livestock loss value of \$2,720-\$8,568, for a total cost of \$195,720-\$201,568 per year (total annual cost during the initial 5-year reintroduction phase would be \$436,352-\$442,200 per year).

Alternative 1A. Restoration of a Grizzly Bears as a Nonessential Experimental Population with USFWS Management:

Summary.--The purpose of this alternative is to accomplish grizzly bear recovery by restoring grizzly bears designated as a nonessential experimental population to central Idaho and implementing provisions within Section 10(j) of the ESA to conduct special management to address local concerns. The USFWS would have management of the Bitterroot grizzly bear experimental population. The states and tribes would be encouraged to implement the Special Rules for grizzly bear management under cooperative agreement with the USFWS.

The Bitterroot Grizzly Bear Experimental Population Area (experimental population area), which includes most of central Idaho and part of western Montana (Figure S-3), would be established by the USFWS under authority of Section 10(j) of the ESA. This would include the area bounded by U.S. Highway 93 from its junction with the Bitterroot River near Missoula, Montana, to Challis, Idaho; Idaho Highway 75 from Challis to Stanley, Idaho; Idaho Highway 21 from Stanley to Lowman, Idaho; Idaho Highway 17 from Lowman to Banks, Idaho; Idaho Highway 55 from Banks to New Meadows, Idaho; U.S. Highway 95 from New Meadows to Coeur d'Alene, Idaho; and Interstate 90 from Coeur d'Alene, Idaho, to its junction with the Clark Fork River near St. Regis, Montana; and the Clark Fork River from its junction with Interstate 90 near St. Regis, to its confluence with the Bitterroot River near Missoula, Montana; and the Bitterroot River from its confluence with the Clark Fork River to its junction with U.S. Highway 93, near Missoula, Montana. The experimental population area encompasses approximately 25,140 square miles. The USFWS would not designate a recovery area.

The best scientific evidence available indicates there are no grizzly bears in the experimental population

area at this time (USFWS 1996). Ongoing grizzly bear monitoring efforts would continue. The first year of implementation would be a “phase-in” year where sanitation equipment would be installed in key areas, and information and education outreach programs would be initiated. Grizzly bears would be restored into the Selway-Bitterroot Wilderness portion of the experimental population area during the second year of implementation. Specific reintroduction sites would be recommended by the management agencies to the USFWS. Experimental grizzly bears moving outside the experimental population area would be captured and placed back inside the experimental area.

Grizzly bear management would allow for resource extraction activities to continue without formal Section 7 consultation under Section 7(a)(2) of the ESA. The USFWS would be responsible for recommending changes in land-use standards and guidelines as necessary for grizzly bear management. People could continue to kill grizzly bears in self-defense or in defense of others, provided that such taking is reported within 24 hours to appropriate authorities. Following issuance of a permit by the USFWS, the public would be allowed to harass, through non-injurious means, a grizzly bear attacking livestock (cattle, sheep, horses, and mules) or bees. A livestock owner may be issued a permit to kill a grizzly bear killing or pursuing livestock on private lands if it has not been possible to capture such a bear or deter depredations through agency efforts. If significant conflicts occurred between grizzly bears and livestock within the experimental population area, these could be resolved in favor of the livestock by agencies capturing or eliminating the bear depending on the circumstances. There would be no federal compensation program, but compensation from existing private funding sources would be encouraged. Animal control toxicants lethal to bears are not used on public lands within the recovery and experimental population areas. It is anticipated that ongoing animal damage control activities would not be affected by grizzly bear recovery. Any conflicts or mortalities associated with these activities would result in review by the USFWS and any necessary changes would be recommended by the USFWS.

Implementation of Alternative 1A would involve.-- The following summary highlights the actions that would be implemented if Alternative 1A is selected:

- ! If this alternative is selected the USFWS would develop and publish a nonessential experimental population rule (Special Rule), under Section 10(j) of the ESA.
- ! The USFWS would designate much of central Idaho and part of western Montana (see description above) as the Bitterroot Grizzly Bear Experimental Population Area for grizzly bear restoration (Figure S-3). Bears would only be released in the Selway-Bitterroot Wilderness, unless the USFWS determines that release in the River of No Return Wilderness is appropriate. Specific relocation sites would be recommended by the management agencies to the USFWS.
- ! The USFWS would implement the Bitterroot Chapter of the Grizzly Bear Recovery Plan (USFWS 1996). The USFWS would develop management plans and policies, as necessary, for management of grizzly bears in the experimental population area.
- ! The IDFG and/or the Nez Perce Tribe, MDFWP, and the USFS, in cooperation with the USFWS, would exercise day-to-day management responsibility within the experimental population area while implementing the BE Grizzly Bear Recovery Plan Chapter.

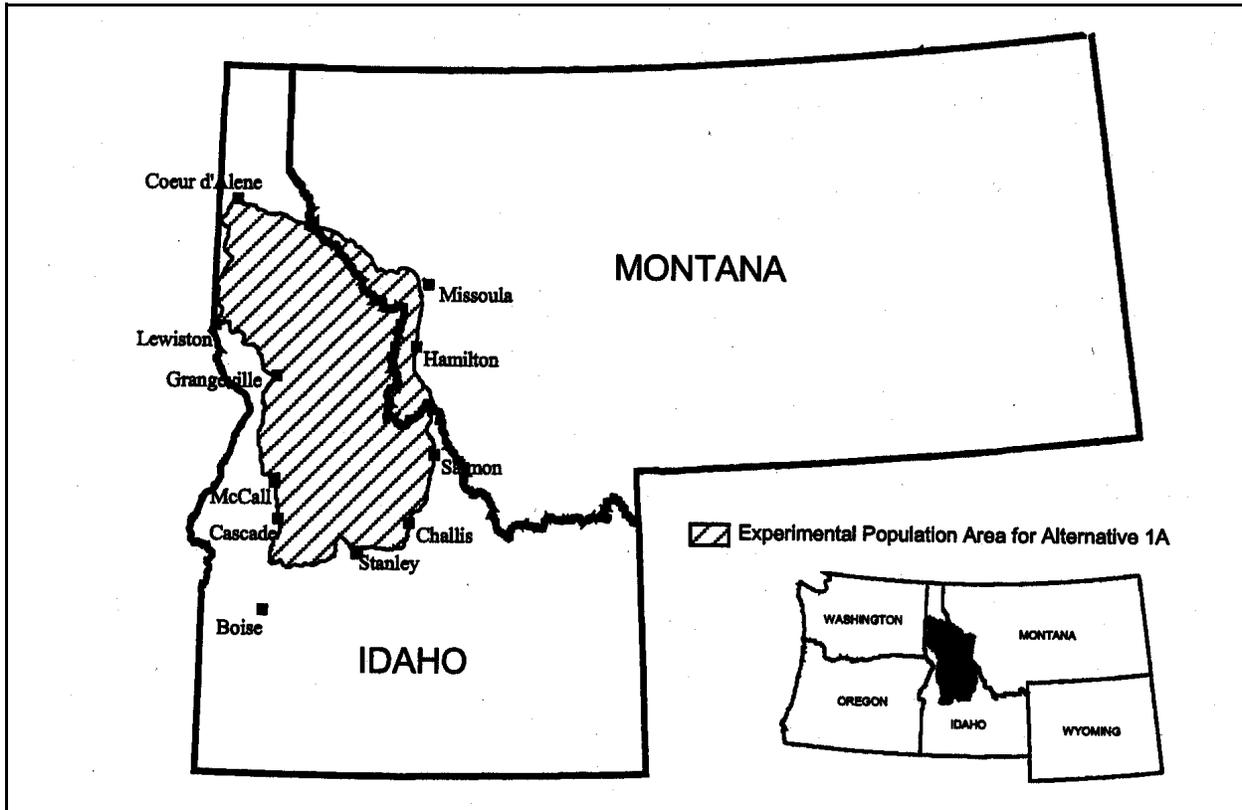


Figure S-3. Bitterroot Grizzly Bear Experimental Population Area for Alternative 1A - *Restoration of Grizzly Bears as a Nonessential Experimental Population with USFWS Management.*

- ! Grizzly bear recovery would be emphasized in designated wilderness areas, but bears moving outside wilderness areas into the experimental population area would be managed through provisions in a Special Rule and through management plans and policies developed by the USFWS, unless potential conflicts were significant and could not be corrected, in which case the USFWS would develop strategies to discourage grizzly bear occupancy in portions of the experimental population area.
- ! Private lands outside the national forest boundary in the Bitterroot Valley (lands outside the Bitterroot Forest boundary south of U.S. Highway 12 to Lost Trail pass) are an area where any human/grizzly conflicts would be considered significant. Grizzly bear occupancy would be discouraged in these areas and grizzly bears would be captured and returned to the experimental population area or destroyed depending on the history of each individual bear. If a grizzly bear enters this exclusion area, state and federal wildlife management agencies would attempt to capture it and notify the public immediately of its presence. The public would be updated until the bear is caught. Further, any grizzly bear that occupies inhabited human settlement areas on private land within the experimental population area that in the judgement of the management agencies presents a clear threat to human safety or where there is indication that it may become habituated to humans, may be relocated by management agencies. This is to prevent conflicts and possible bear-human injury or the death of bears, and to promote and enhance public safety.

- ! Grizzly bear management would allow for resource extraction activities to continue without formal Section 7 consultation, because under ESA Section 10(j)(c) nonessential experimental populations are treated under Section 7(a)(2) as “proposed” species, and thus federal agencies are not required to formally consult with USFWS on management actions. Federal agencies are only required to confer with USFWS on activities the agencies believe might jeopardize the existence of the species.
- ! All Section 9 “takings” provisions under the ESA for the nonessential experimental population of grizzly bears in the BE would be included in the Special Rule. The USFWS would be responsible for recommending changes in land-use standards and guidelines in the BE as necessary for grizzly bear management. People would continue to be allowed to take a grizzly bear in self-defense or defense of others, provided that such taking is reported within 24 hours to appropriate authorities. Livestock owners would be allowed to take a grizzly bear once a permit has been obtained, the response protocol established by the USFWS has been satisfied, and efforts by the wildlife agency personnel to capture depredating bears have been unsuccessful.
- ! The USFWS would establish a tentative recovery goal of approximately 280 grizzly bears occupying suitable habitat within the wilderness and adjacent lands (USFWS 1996). The USFWS could recommend a refined recovery goal based on scientific information once grizzly bears were reintroduced and additional information was obtained on their use of the habitat. The recovery goal for the Bitterroot grizzly bear population would be consistent with habitat available within the wilderness and adjacent lands within the experimental population area and the best scientific and commercial data available. Any revised recovery goals developed by the USFWS would require public review appropriate for the revision of a recovery plan.
- ! A minimum of 25 grizzly bears would be reintroduced into the Selway-Bitterroot Wilderness portion of the experimental population area over a period of 5 years, until a colony of bears is established.

The USFWS, USFS, states of Idaho and Montana, and Nez Perce Tribe would release a minimum of 25 grizzly bears into the experimental population area over a period of 5 years. Procedures would include:

- ! The first “phase-in” year of implementation before grizzly bears are reintroduced would include an intense sanitation and public education campaign. The sanitation program would include efforts by the USFS, permittees, and private landowners in and around the experimental population area. Public education efforts would include: presentations at schools in and around the experimental population area to teach children about grizzly bears and how to recreate safely in grizzly bear country; presentations to all civic clubs and interested organizations about grizzly bears and how to recreate safely in grizzly bear country; and placing of informative signs at all trail heads in and around the experimental population area.
- ! Necessary federal permits, agreements, and archeological site clearances would be obtained and activities conducted for a scientifically based grizzly bear reintroduction program.
- ! Subadult grizzly bears of both sexes would be trapped each year for 5 years, from areas in Canada (in cooperation with Canadian authorities) and the United States that presently have healthy populations of grizzly bears living in habitats that are similar to those found in the Bitterroot Ecosystem. Three sources of grizzly bears for the BE have been identified: southeast British Columbia, the Northern Continental Divide Ecosystem (NCDE) population in northwest Montana, and the Yellowstone Ecosystem (YE) population. Under ESA Section 10(j), the Secretary of Interior may authorize the

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release of any population of an endangered or threatened species outside the current range of such species if the Secretary determines that the release will further the conservation of the species, and the population is wholly separate geographically from nonexperimental populations of the same species. Specific numbers of bears that could be obtained yearly from potential source populations is unknown at this time, and would be predicated on the yearly achievement of recovery (YE and NCDE) and management (British Columbia) objectives.

- ! Grizzly bears would be captured and reintroduced at the best time of year to optimize their survival. This would likely occur when grizzly bear food supplies in the BE are optimum. Each individual grizzly bear reintroduced would be radio collared and monitored to determine their movements and how they use their habitat, and to keep the public informed of general bear locations and recovery efforts.

Expected actions and effects of Alternative 1A.-- See Tables S-2 and S-3 for a comparison of expected actions and effects of this alternative. The tentative recovery goal of this alternative is approximately 280 grizzly bears (USFWS 1996). Realistically, grizzly bear recovery in the BE could take a minimum of 50 years (4% growth rate), and given potential conflicts, could likely take more than 110 years (2% growth rate). Total annual implementation cost during the 5-year reintroduction period would be approximately \$413,632/year, and the total 5-year implementation cost would be approximately \$2,068,160. Annual costs for monitoring and citizen management would be approximately \$173,000 for each year beyond the 5-year reintroduction period.

A brief summary of effects: A recovered grizzly bear population would kill about 6 cattle (4-8) and 25 sheep (5-44) and up to 504 ungulates per year. This would not measurably impact ungulate populations or hunter harvest. Nuisance bear incidents could average 37 (0-74) per year. There would be no anticipated impacts to land use activities on public or private land to include timber harvest, mining, and public access/recreational use. Changes to hunting seasons could occur due to conflicts. Risk to human health and safety from a recovered grizzly bear population would be less than 1 injury per year and less than 1 human mortality every few decades. Economic analyses indicate grizzly bear recovery in the BE would lead to total net economic benefits of 40.4-60.6 million dollars per year. Total annual cost would include an implementation cost of \$173,000 and livestock loss value of \$2,720-\$8,568, for a total cost of \$175,720-\$181,568 per year (total annual cost during the initial 5-year reintroduction phase would be \$416,352-\$422,200 per year).

Alternative 2. The No Action Alternative - Natural Recovery:

Summary.-- The purpose of this alternative is to allow grizzly bears to expand from their current range in north Idaho and northwestern Montana southward into central Idaho and western Montana, and to recolonize the BE. The ultimate goal is natural recovery of grizzly bears in the BE. Grizzly bears would be allowed to expand their current range in north Idaho and northwestern Montana southward into central Idaho and western Montana. The likelihood of recovery of grizzly bears in the BE through natural recolonization appears remote because grizzly bears do not move far to colonize distant, disjunct areas. The nearest grizzly bear population to the BE is approximately 40 miles away in the Cabinet Mountains of northwest Montana. Data from more than 550 different radio-collared grizzly bears since 1975 shows no movement by grizzly bears between any ecosystems. Given existing information, it is unlikely that such movement would occur into the BE from an area currently occupied by grizzly bears. If grizzly bears did disperse, they would be protected as a threatened species under the Endangered Species Act wherever they occurred.

Because grizzly bears would be fully protected as threatened under the ESA, Section 7(a)(2) would apply upon documentation of the presence of a grizzly bear in the BE, and all federal actions within the recovery zone would be subject to Section 7 consultation with the USFWS. The IGBC nuisance grizzly bear management guidelines (IGBC 1986) would be implemented to address conflicts that occur between grizzly bears and humans. The USFWS would manage all aspects of grizzly bear recovery. It is unknown (but not likely) whether this alternative would result in recovery of grizzly bears in the BE. It was the opinion of the Bitterroot Ecosystem Technical Committee that recovery of grizzly bears in the BE through recolonization is considered a remote possibility because of lack of movement or dispersal by grizzly bears in the northern Rocky Mountains (USFWS 1996). If recovery was achieved, grizzly bears would be removed from ESA protection and the states of Idaho and Montana would continue to manage bears.

Implementation of Alternative 2 would involve.-- The following summary highlights the actions that would be implemented if Alternative 2 is selected:

- ! The USFWS would designate the Bitterroot Grizzly Bear Recovery Zone as delineated in Figure S-4, and consistent with the 5,500 square mile Bitterroot Grizzly Bear Evaluation Area (BEA) as defined in the Bitterroot Ecosystem Recovery Plan Chapter - Supplement to the Grizzly Bear Recovery Plan (USFWS 1993, 1996).
- ! The USFWS would establish a tentative long-term recovery goal of approximately 280 grizzly bears (bears distributed over 5,500 mi² of designated wilderness and adjacent lands) within the recovery zone (USFWS 1996) (Figure S-4).
- ! Primary grizzly bear management responsibility would reside with the USFWS and include active participation by federal land management agencies, the states of Idaho and Montana, and the Nez Perce Tribe.
- ! Upon documentation of grizzly bear(s) in the BE, the USFWS would conduct an extensive and objective public education and information program to inform the public about grizzly bears and their management under the ESA.
- ! The USFWS would continue to evaluate reported sightings of grizzly bears in the BE to determine their presence. The USFWS would also coordinate a monitoring program within the recovery zone to determine the status of recolonization.
- ! The national forests within the recovery zone would continue to manage habitat to meet or exceed their existing Forest Plan standards for big game habitat management. ESA Section 7(a)(2) would apply upon documentation of grizzly bear presence in the BE, and all federal actions within the recovery zone would be subject to Section 7 consultation with the USFWS.
- ! Upon documentation of grizzly bear(s) in the BE, the USFWS would evaluate the adequacy of land-use restrictions to protect suitable grizzly bear habitat within the Bitterroot recovery zone and within potential linkage zones to other occupied recovery zones. The USFWS would use the existing evaluation of adjacent wilderness areas to consider them as additions to the recovery zone (to include the portion of the Frank Church-River of No Return Wilderness south of the Salmon River).



Figure S-4. The Bitterroot Grizzly Bear Recovery Zone for Alternative 2 - *the No Action Alternative - Natural Recovery*.

- ! The USFWS, in cooperation with IDFG and MDFWP would apply the IGBC nuisance grizzly bear management guidelines to grizzly bears in conflict with humans or domestic animals.
- ! Land-use restrictions could be implemented when necessary if illegal killing threatens grizzly bear recovery.

Expected actions and effects of Alternative 2.-- See Tables S-2 and S-3 for a comparison of the expected actions and effects of this alternative. The tentative recovery goal of this alternative is approximately 280 grizzly bears (USFWS 1996). Optimistically, it could take at least 50 years for reproducing populations of bears from the Cabinet-Yaak Ecosystem (80 miles distance) to reach the BE. If this occurred, it would conservatively take an additional 50-110+ years to population recovery. Thus, estimated time to recover grizzly bears in the BE under this alternative is at least 100-160 years. Since this alternative relies on natural recolonization to recover grizzly bears in the BE, there would be no cost associated with reintroduction of bears. Costs for ongoing monitoring and management activities would be approximately \$140,000 per year.

A brief summary of effects: If population recovery occurred, a recovered grizzly bear population would kill about 2 cattle (1-3) and 4 sheep (1-6) and up to 504 ungulates per year. This would not measurably impact ungulate populations or hunter harvest. Nuisance bear incidents could average 37 (0-74) per year. Section 7 (a)(2) consultation requirements would be triggered upon grizzly bear presence. Ongoing land-use activities (including timber harvest, minerals extraction, and public access and recreation) could be altered solely for grizzly bears if grizzly bear presence was documented in the BE, and research indicates that current

habitat management is not adequate to maintain suitable grizzly bear habitat, or that linkage zone restrictions are necessary to promote grizzly bear recolonization. If grizzly bears recolonize, it is estimated that reductions in timber harvest on affected currently roaded national forest lands would be between 8.3 and 39.7 million board feet per year over the next decade. Changes to hunting seasons could occur due to conflicts. Risk to human health and safety from a recovered grizzly bear population would be less than 1 injury per year and less than 1 human mortality every few decades. Economic analyses indicate that there is no net economic benefit from this alternative because it is essentially a continuation of the status quo for the foreseeable future. Total costs would be \$140,000 for implementation, and the potential net loss of 55-264 jobs from reduced timber harvest.

Alternative 3. The No Grizzly Bear Alternative:

Summary.-- The purpose of this alternative is to prevent grizzly bears from naturally re-establishing in Bitterroot Ecosystem. Changes to the ESA proposed under this alternative would require intensive lobbying, changes in public attitudes, and years to implement. Actions of this magnitude would cost millions of dollars. Congress would need to pass legislation to remove grizzly bears in central Idaho and portions of western Montana from the list of threatened species. The USFWS would stop all funding and management activity toward bear research, education, and management in central Idaho. Furthermore, the states of Idaho and Montana would remove grizzly bears from the protection of state law within the BE (central Idaho and west-central Montana). Unregulated killing by the public and extirpation or removal by agencies would likely prevent any possible grizzly bear recovery in this area.

Implementation of Alternative 3 would involve.-- The following summary highlights the actions that would be implemented if Alternative 3 is selected:

- ! Federal legislation would be passed to remove grizzly bears from the list of threatened species in the BE.
- ! State legislation would be passed to remove grizzly bears from protection of Idaho and Montana state law in the BE.
- ! Agencies and the public would be allowed to kill grizzly bears at any time without restriction. This would prevent any natural recovery of bears.

Expected actions and effects of Alternative 3.-- See Tables S-2 and S-3 for a comparison of the expected actions and effects of this alternative. The only estimated costs of this alternative are management costs necessary to develop required legislation to change existing laws and regulations. Total cost is estimated at a minimum of \$2,000,000 spread over several years. No measurable benefits have been associated with this alternative. There would be no other measurable impacts from this alternative.

Alternative 4. Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and Habitat Restoration:

Summary.-- Of importance is the fact that the principal laws that govern land management on federal lands will have to be changed for the USFWS to implement this alternative. The purpose of this alternative is to use reintroduction and extensive habitat protection and enhancement to promote natural recovery of grizzly bears in the BE. Primary grizzly bear management responsibility would reside with the USFWS and include active participation by the states and the Nez Perce Tribe. A ten member Scientific Committee would be appointed by the Secretary of the Interior in cooperation with the National Academy of Sciences to define

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needs for additional research, develop strategies for reintroduction of bears, and monitor results of the program. Grizzly bears would be reintroduced into the Selway-Bitterroot Wilderness and roadless areas north of the Lochsa River through methods determined by the Scientific Committee. They would be fully listed as threatened with all the protections under the ESA (including Section 7(a)(2)), and all federal actions within the recovery zone would be subject to ESA Section 7 consultation with the USFWS. Management Situation designation would reflect a high priority for recovery on all federal lands within a 21,645 square mile recovery zone.

Grizzly bear populations would take a minimum of 65 years, and likely more than 125 years to recover to a population of 300-500 individuals (bears distributed over 21,645 mi² of wilderness, non-wilderness, and private land). No logging or road building would be permitted on roadless lands within the recovery zone. The Magruder Road would be reclaimed and converted to a pack trail from Magruder crossing 23 miles west to Sabe Saddle. The Hells Half Acre Mountain Road would be reclaimed over the entire eight mile length. The Lolo Restoration Area (219 square miles) and a Corridor Special Management Area (1,380 square miles) would be designated for road density reduction through reclamation. Road densities on roaded lands within the Restoration Area and the Corridor Special Management Area would be reduced to an average of no more than 0.25 miles per square mile.

Interagency Grizzly Bear Committee nuisance grizzly bear management guidelines (IGBC 1986) would be applied to bears killing livestock. The Scientific Committee would review and modify these guidelines if necessary. If losses occurred on nearby private lands, bears would be moved. Agency response to reported livestock losses from grizzly bears must occur rapidly. Grizzly bears could be killed in defense of life, but not in defense of property. Use of toxicants lethal to bears on public lands within the recovery zone and areas used by bears would be subject to Section 7 consultation and could be prohibited by existing ADC policy and EPA labeling instructions.

Backcountry users would be required to make food, garbage, and livestock feed unavailable to grizzly bears. Front country campgrounds would install bear resistant garbage containers as soon as possible. An intensive education campaign regarding food storage and garbage handling would be instituted for all residents and visitors. A request for elimination of hunting of black bears with dogs and bait within the wilderness areas designated for reintroduction of grizzly bears would be made to the State of Idaho. The Scientific Committee would recommend whether this ban would need to be extended if conditions warrant. Intensive hunter education efforts regarding bear identification and recreation in grizzly bear habitat would be undertaken.

Implementation of Alternative 4 would involve.-- The following summary highlights the actions that would be implemented if Alternative 4 is selected:

- ! Of importance is the fact that the principal laws that govern land management on federal lands will have to be changed for the USFWS to implement this alternative.
- ! The USFWS would designate the Bitterroot Grizzly Bear Recovery Zone along boundaries described in Figure S-5. The Recovery Zone would include all of the Selway-Bitterroot, Frank Church-River of No Return, Sawtooth, and Gospel Hump Wilderness Areas, surrounding inventoried roadless lands, and other National Forest lands comprising approximately 21,645 square miles. The area is located on portions of the Clearwater, Bitterroot, Lolo, Panhandle, Payette, Boise, Sawtooth, Challis, and Salmon National Forests. Specifically, the northern boundary of the recovery zone would be the northern boundary of the Mallard-Larkins inventoried roadless area on the Clearwater and Panhandle National Forests and the northern boundary of the Sheep Mountain inventoried roadless area on the Lolo National Forest. The western boundary of the recovery zone would be the western boundary of the

Clearwater National Forest; the westernmost boundaries of the Nez Perce and Payette National Forests west of U.S. Highway 95 and Idaho Highway 55; the westernmost boundaries of the Boise National Forest east of Idaho Highway 55. The southern boundary of the recovery zone would be the southern boundaries of the Boise, Sawtooth, and Challis National Forests north of U.S. Highway 20. The eastern boundary of the recovery zone would be the eastern boundaries of the Challis and Salmon National Forests west of U.S. Highway 93; the Bitterroot National Forest west of Lost Trail Pass northwest to Trapper Peak; the eastern boundary of the Selway-Bitterroot Wilderness Area to Lolo Peak and to include Lost Horse and Blodgett Canyons out to the mouth; the Lolo National Forest from Lolo Peak northwest to Garden Point; from Garden Point northwest to Rivulet Peak; from Rivulet Peak northwest to Sunrise Point; from Sunrise Point northwest to Blacktail Mountain.

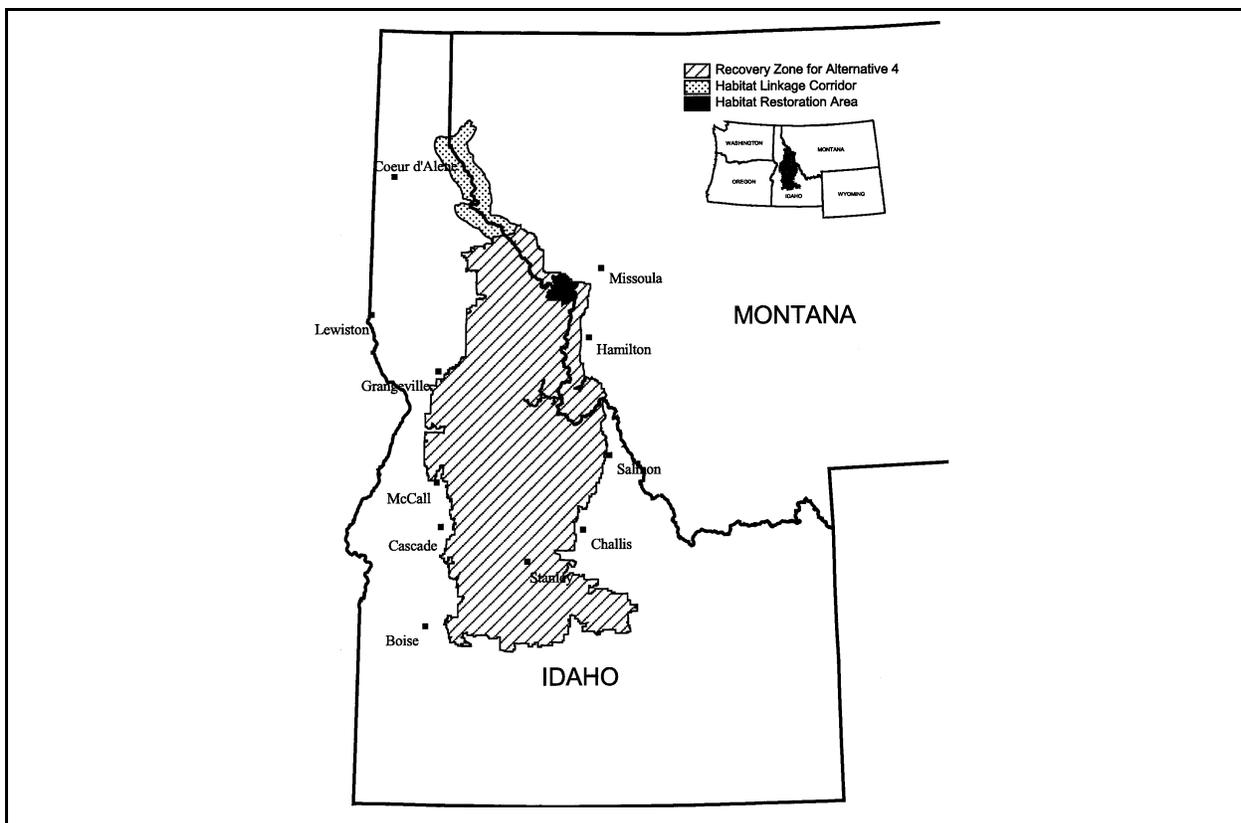


Figure S-5. Bitterroot Grizzly Bear Recovery Zone and Linkage Corridor for Alternative 4 - *Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and Habitat Restoration.*

- ! The USFWS would establish proactive interagency grizzly bear recovery programs in the BE (similar to those existing in other ecosystems) to conduct monitoring, research, education, and information programs.
- ! A Scientific Committee would be established to define needs for additional research, develop strategies for reintroduction of bears, and monitor results of the program.

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- ! A recovery goal of between 300-500 (average of 400) grizzly bears (bears distributed over 21,645 mi² of wilderness, non-wilderness and private land) would be established within the recovery zone. The Scientific Committee would recommend a refined recovery goal once grizzly bears are reintroduced and information is obtained on their use of the habitat.
- ! The USFWS would reintroduce a minimum of 25 bears over a period of 5 years into the Selway-Bitterroot Wilderness and roadless areas north of the Lochsa River following recommendations of the Scientific Committee. Subadult grizzly bears of both sexes would be trapped, each year for 5 years, from areas in Canada (in cooperation with Canadian authorities) and the United States that presently have healthy populations of grizzly bears living in habitats that are similar to those found in the Bitterroot Ecosystem. Three sources of grizzly bears for the BE have been identified: southeast British Columbia, the Northern Continental Divide Ecosystem (NCDE) population in northwest Montana, and the Yellowstone Ecosystem (YE) population. The specific number of bears that could be obtained yearly from the potential source populations is unknown at this time. Bears would be reintroduced at the best time of year to optimize their survival. Reintroduced bears would be radio collared and monitored to determine their movements and how they use their habitat, and to keep the public informed of general bear locations and recovery efforts.
- ! Within the recovery zone (Figure S-5), the USFS and Bureau of Land Management (BLM) in cooperation with USFWS would: not approve logging or road building within roadless areas; use road closures and road reclamation to reduce road densities to no more than 0.25 miles per square mile within the recovery zone, habitat restoration areas and habitat linkage corridors; designate management situations as per the Interagency Grizzly Bear Guidelines (IGBC 1986); and implement sanitation programs to assist recovery of grizzly bears.
- ! USFWS, in cooperation with other federal agencies, the states, the Nez Perce Tribe, and private groups would use federal funding to enhance grizzly bear habitat through acquisitions or easements.
- ! USFWS, in cooperation with IDFG and MDFWP would apply the IGBC nuisance grizzly bear management guidelines (IGBC 1986) to grizzly bears in conflict with humans or domestic animals.
- ! IDFG in cooperation with the USFWS would be requested to eliminate the use of dogs and bait for black bear hunting within the area designated for release of reintroduced bears.

Expected actions and effects of Alternative 4.-- See Tables S-2 and S-3 for a comparison of expected actions and effects of this alternative. The tentative recovery goal of this alternative is approximately 400 (300-500) grizzly bears. Under this alternative, grizzly bear recovery in the BE could take a minimum of 65-70 years (4% growth rate), and given potential conflicts, would likely take more than 125 years (2% growth rate). Total annual implementation cost during the 5-year reintroduction period would be approximately \$433,632/year, and total 5-year implementation cost would be approximately \$2,143,160. Annual costs for monitoring and citizen management would be approximately \$188,000 for each year beyond the 5-year reintroduction period.

A brief summary of effects: A recovered grizzly bear population would kill about 20 cattle (12-27) and 198 sheep (41-355) and up to 720 ungulates per year. This would not measurably impact ungulate populations or hunter harvest. Nuisance bear incidents could average 58 (0-105) per year. Because grizzly bears would be listed as a fully protected threatened species, all federal actions within the recovery zone would be subject to ESA Section 7 consultation with the USFWS. Road building and timber harvest would not be allowed on federal lands within the recovery zone that are presently roadless. Grizzly bear habitat management

would also likely restrict to some degree timber harvests on currently roaded areas within the recovery zone. It is estimated that reductions in timber harvest on national forest lands would be between 40 and 194 million board feet per year over the next decade. Minerals extraction activities could be altered due to grizzly bear concerns in and by themselves. Public access could be negatively impacted due to proposed road closures, however, backcountry recreation opportunities could be enhanced by the road closures. Changes to black bear hunting seasons (elimination of baiting and hound hunting) could occur. Risk to human health and safety from a recovered grizzly bear population would be less than 1 injury per year and less than 1 human mortality every few decades. Economic analyses indicate grizzly bear recovery in the BE would lead to total net economic benefits of 40.4-60.6 million dollars per year. Annual cost associated with grizzly bear recovery would be: \$288,700 for the value of hunting losses; \$10,552-\$47,915 for the value of livestock losses; and \$188,000 annual cost for monitoring and management after the reintroduction phase (\$428,632 annual implementation cost for the first 5-year reintroduction phase). Thus, the total cost would be \$487,252-\$524,615 per year (costs during the initial 5-year reintroduction phase would be \$727,884-\$765,247 per year). In addition, there would potentially be a net job loss of 117-1,136 jobs from reductions in timber harvest due to implementation of this alternative.

Alternative 4A. Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and USFWS Management:

Summary.-- The purpose of this alternative is to achieve recovery through reintroduction, with the USFWS managing all aspects of recovery of the population. Other federal and state agencies and the Nez Perce Tribe would assist the USFWS with management activities. The grizzly bear would have full status as a threatened species under the provisions of the ESA.

Primary grizzly bear management responsibility would reside with the USFWS and include active participation by the states and the Nez Perce Tribe. A ten member Scientific Advisory Committee would be appointed by the Secretary of Interior in cooperation with the National Academy of Sciences to make recommendations regarding research needs and strategies for reintroduction of bears, and to monitor results of the program. Grizzly bears would be reintroduced into the Selway-Bitterroot Wilderness through methods developed in cooperation with the Scientific Advisory Committee and the USFWS.

Reintroduced bears would be fully listed as threatened with all the protections under the ESA (including Section 7(a)(2)), and all federal actions within the recovery zone would be subject to ESA Section 7 consultation with the USFWS. Management Situation designation would reflect a high priority for recovery on all federal lands within the 21,645 square mile recovery zone. Grizzly bear populations would take a minimum of 65 years, and likely more than 125 years to recover to a population of 300-500 individuals.

Interagency Grizzly Bear Committee (IGBC) nuisance grizzly bear management guidelines (IGBC 1986) would be applied to bears killing livestock. If losses occurred on nearby private lands, bears would be moved. Agency response to reported livestock losses from grizzly bears must occur rapidly. Grizzly bears could be killed in defense of life, but not in defense of property. Use of toxicants lethal to bears on public lands within the recovery zone and areas used by bears would be subject to Section 7 consultation and could be prohibited by existing ADC policy and EPA labeling instructions. Backcountry users would be required to make food, garbage, and livestock feed unavailable to grizzly bears. Front country campgrounds would install bear resistant garbage containers as soon as possible. An intensive education campaign regarding food storage and garbage handling would be instituted for all residents and visitors. A request for elimination of hunting of black bears with dogs and bait within the wilderness areas designated for reintroduction of grizzly bears would be made to the State of Idaho. The Scientific Advisory Committee would evaluate whether this ban would need to be extended if conditions warrant. Intensive hunter education efforts regarding bear

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identification and recreation in grizzly bear habitat would be undertaken.

Implementation of Alternative 4A would involve.-- The following summary highlights the actions that would be implemented if Alternative 4A is selected:

- ! The USFWS would designate the Bitterroot Grizzly Bear Recovery Zone along boundaries described in Figure S-6. The Recovery Zone would include all of the Selway-Bitterroot, Frank Church-River of No Return, Sawtooth, and Gospel Hump Wilderness Areas, surrounding inventoried roadless lands, and other National Forest lands comprising approximately 21,645 square miles. The area is located on portions of the Clearwater, Bitterroot, Lolo, Panhandle, Payette, Boise, Sawtooth, Challis, and Salmon National Forests. Specifically, the northern boundary of the recovery zone would be the northern boundary of the Mallard-Larkins inventoried roadless area on the Clearwater and Panhandle National Forests and the northern boundary of the Sheep Mountain inventoried roadless area on the Lolo National Forest. The western boundary of the recovery zone would be the western boundary of the Clearwater National Forest; the westernmost boundaries of the Nez Perce and Payette National Forests west of U.S. Highway 95 and Idaho Highway 55; the westernmost boundaries of the Boise National Forest east of Idaho Highway 55. The southern boundary of the recovery zone would be the southern boundaries of the Boise, Sawtooth, and Challis National Forests north of U.S. Highway 20. The eastern boundary of the recovery zone would be the eastern boundaries of the Challis and Salmon National Forests west of U.S. Highway 93; the Bitterroot National Forest west of Lost Trail Pass northwest to Trapper Peak; the eastern boundary of the Selway-Bitterroot Wilderness Area to Lolo Peak and to include Lost Horse and Blodgett Canyons out to the mouth; the Lolo National Forest from Lolo Peak northwest to Garden Point; from Garden Point northwest to Rivulet Peak; from Rivulet Peak northwest to Sunrise Point; from Sunrise Point northwest to Blacktail Mountain.
- ! The USFWS would establish proactive interagency grizzly bear recovery programs in the BE (similar to those in other ecosystems) to conduct monitoring, research, education, and information programs.
- ! A Scientific Advisory Committee would be established to provide input on research needs, strategies for reintroduction of bears, and monitoring program results.
- ! A recovery goal of between 300-500 (average of 400) grizzly bears (bears distributed over 21,645 square miles of designated wilderness, non-wilderness, and private land) would be established within the recovery zone. The Scientific Advisory Committee could recommend a refined recovery goal once grizzly bears are reintroduced and information is obtained on their use of the habitat.
- ! The USFWS would reintroduce a minimum of 25 bears over a period of five years into the Selway-Bitterroot Wilderness following procedures established from recommendations of the Scientific Advisory Committee. Subadult grizzly bears of both sexes would be trapped, each year for 5 years, from areas in Canada (in cooperation with Canadian authorities) and the United States that presently have healthy populations of grizzly bears living in habitats that are similar to those found in the Bitterroot Ecosystem. Three sources of grizzly bears for the BE have been identified: southeast British Columbia, the Northern Continental Divide Ecosystem (NCDE) population in northwest Montana, and the Yellowstone Ecosystem (YE) population. The specific number of bears that could be obtained yearly from the potential

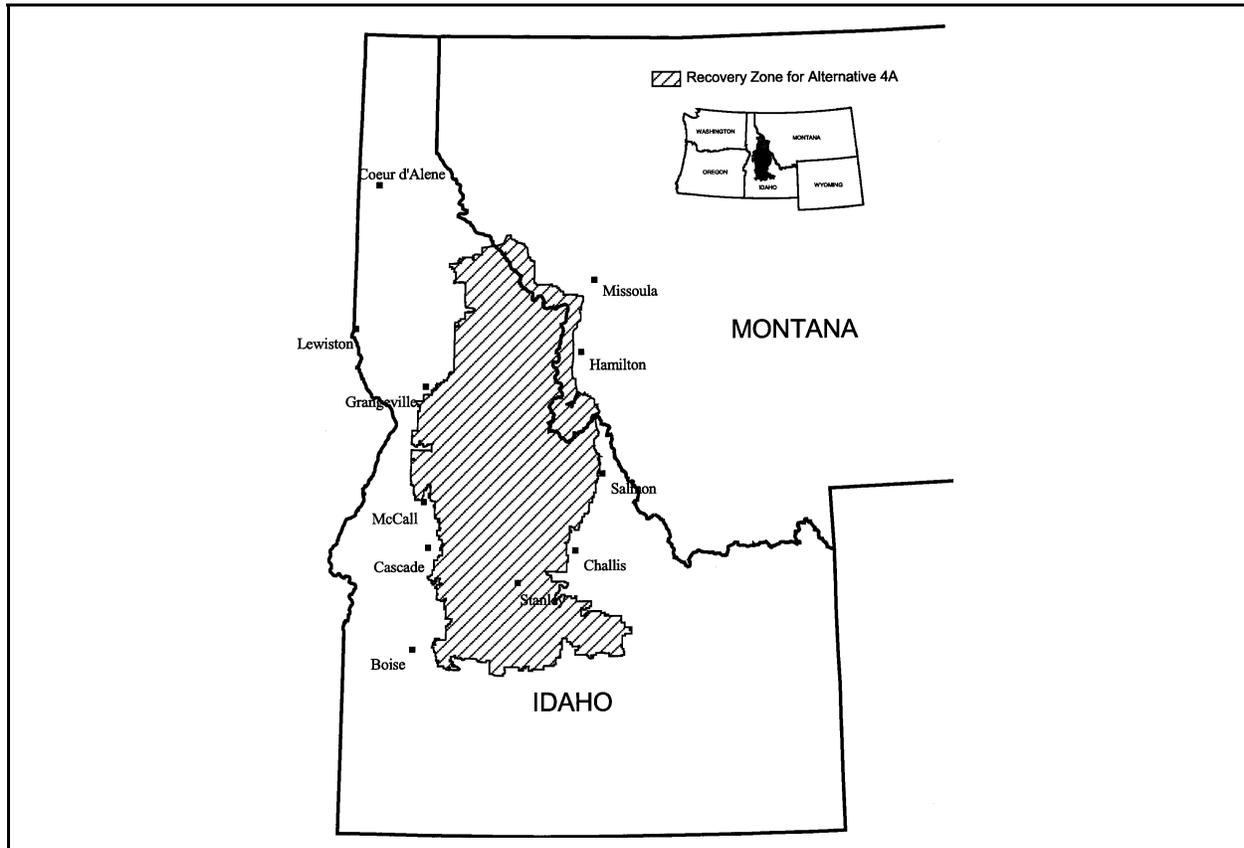


Figure S-6. Bitterroot Grizzly Bear Recovery Zone for Alternative 4A - the Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and USFWS Management.

source populations is unknown at this time. Bears would be reintroduced at the best time of year to optimize their survival. Reintroduced bears would be radio collared and monitored to determine their movements and how they use their habitat, and to keep the public informed of general bear locations and recovery efforts.

- ! Within the recovery zone (Figure S-6), the USFS and Bureau of Land Management (BLM) in cooperation with USFWS would designate management situations as per the Interagency Grizzly Bear Guidelines (IGBC 1986), and implement sanitation programs to assist recovery of grizzly bears.
- ! USFWS, in cooperation with other federal agencies, the states, the Nez Perce Tribe, and private groups would use federal funding to enhance grizzly bear habitat through acquisitions or easements.
- ! USFWS, in cooperation with IDFG and MDFWP would apply the IGBC (1986) nuisance grizzly bear management guidelines to grizzly bears in conflict with humans or domestic animals.
- ! USFWS could evaluate the need to eliminate the use of dogs and bait for black bear hunting within the area designated for release of reintroduced bears. These hunting techniques could be eliminated if authorized by the IDFG and Idaho Fish and Game Commission.

Expected actions and effects of Alternative 4A.-- See Tables S-2 and S-3 for a comparison of expected

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actions and effects of this alternative. The tentative recovery goal of this alternative is approximately 400 (300-500) grizzly bears. Under this alternative, grizzly bear recovery in the BE could take a minimum of 65-70 years (4% growth rate), and given potential conflicts, would likely take more than 125 years (2% growth rate). Total annual implementation cost during the 5-year reintroduction period would be approximately \$433,632/year, and total 5-year implementation cost would be approximately \$2,143,160. Annual costs for monitoring and citizen management would be approximately \$188,000 for each year beyond the 5-year reintroduction period.

A brief summary of effects: A recovered grizzly bear population would kill about 20 cattle (12-27) and 198 sheep (41-355) and up to 720 ungulates per year. This would not measurably impact ungulate populations or hunter harvest. Nuisance bear incidents could average 58 (0-105) per year. Because grizzly bears would be listed as a fully protected threatened species, all federal actions within the recovery zone would be subject to ESA Section 7 consultation with the USFWS. Grizzly bear habitat management would also likely restrict to some degree timber harvests on currently roaded areas within the recovery zone. It is estimated that reductions in timber harvest on national forest lands would be between 32 and 76 million board feet per year over the next decade. Minerals extraction activities could be altered due to grizzly bear concerns in and by themselves. Changes to black bear hunting seasons (elimination of baiting and hound hunting) could occur. Risk to human health and safety from a recovered grizzly bear population would be less than 1 injury per year and less than 1 human mortality every few decades. Economic analyses indicate grizzly bear recovery in the BE would lead to total net economic benefits of 40.4-60.6 million dollars per year. Annual cost associated with grizzly bear recovery would be: \$10,552-\$47,915 for the value of livestock losses; and \$188,000 annual cost for monitoring and management after the reintroduction phase (\$428,632 annual implementation cost for the first 5-year reintroduction phase). Thus, the total annual cost would be \$198,552-\$235,915 per year (costs during the initial 5-year reintroduction phase would be \$439,184-\$476,547 per year). In addition, there would potentially be a net job loss of 215-504 jobs from reductions in timber harvest due to implementation of this alternative.

A SUMMARY AND COMPARISON OF THE IMPACTS OF THESE ALTERNATIVES AND IDENTIFICATION OF THE FISH AND WILDLIFE SERVICE PREFERRED ALTERNATIVE

This section briefly describes the six alternatives that were considered in detail and compares them in terms of how well each one meets the recovery goal of the USFWS and the public concerns that were identified during scoping. Table S-2 summarizes the six alternatives and the expected actions associated with them. Figure S-7 compares the proposed Bitterroot Grizzly Bear Recovery Area for Alternative 1 with the proposed Bitterroot Grizzly Bear Recovery Zones for Alternatives 1A, 2, 4, and 4A. Table S-3 summarizes the general impact of implementation of each alternative on big game resources, hunter harvest, domestic animals, land-use restrictions, visitor use, and economics.

Alternative 1, Restoration of a Grizzly Bears as a Nonessential Experimental Population with Citizen Management (the proposed action) has been identified as the preferred alternative by the USFWS because it best meets the purpose and need, and the criteria used to evaluate and compare the alternatives. The USFWS believes that this alternative would be the most efficient and likely to result in the recovery of grizzly bears in the Bitterroot Ecosystem.

Alternative 1A, Restoration of Grizzly Bears as a Nonessential Experimental Population with USFWS Management was not selected as the preferred alternative because the USFWS chooses to maximize the

probability of success by involving citizens in the management of the restored population. Alternative 2, The No Action Alternative - Natural Recovery was not selected as the preferred alternative because it is very unlikely that grizzly bears could be restored in the Bitterroot Ecosystem through natural recovery as prescribed under this alternative. Alternative 3, the No Grizzly Bear Alternative was not selected as the preferred alternative because it does not fulfill the purpose of the FEIS. Alternative 4, Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and Habitat Restoration, was not selected as the preferred alternative because the management actions proposed by Alternative 4 are beyond what is necessary to fulfill the purpose of the FEIS. The road management plan to obliterate a large number of roads to achieve a road density of 0.25 mi./sq.mi., and the elimination of timber harvest in all roadless areas under this alternative are not necessary actions to achieve grizzly bear recovery, and thus decrease the efficiency with which this alternative could achieve recovery in the Bitterroot Ecosystem. Alternative 4A, Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and USFWS Management, was not selected as the preferred alternative because it is unlikely that grizzly bear restoration in the Bitterroot Ecosystem would succeed without local citizen involvement in grizzly bear management.

Literature Cited:

- Interagency Grizzly Bear Committee. 1986. Interagency grizzly bear guidelines. U.S. For. Serv., Washington, D.C. 100 pp.
- U.S. Fish and Wildlife Service. 1993. Grizzly bear recovery plan. U.S. Fish and Wildlife Service, Missoula, Montana. 181 pp.
- _____. 1994. Final environmental impact statement on the reintroduction of gray wolves to Yellowstone National Park and central Idaho. U. S. Fish and Wildl. Serv., Helena, Mont.
- _____. 1995. Summary of public comments on the scoping of issues and alternatives for grizzly bear recovery in the Bitterroot Ecosystem. U. S. Fish and Wildl. Serv., Missoula, Mont.
- _____. 1996. Bitterroot Ecosystem recovery plan chapter - supplement to the grizzly bear recovery plan. U.S. Fish and Wildlife Service, Missoula, Montana. 27 pp.
- _____. 1997. Grizzly bear recovery in the Bitterroot Ecosystem, Draft Environmental Impact Statement. U.S. Fish and Wildlife Service, Missoula, Montana. 464 pp.
- _____. 1998. Summary of public comments on the draft environmental impact statement for grizzly bear recovery in the Bitterroot Ecosystem. U. S. Fish and Wildl. Serv., Missoula, Mont.
- _____. 2000. Grizzly bear recovery in the Bitterroot Ecosystem, Final Environmental Impact Statement. U.S. Fish and Wildlife Service, Missoula, Montana.

Notice on Public Comments: All comments received from individuals on USFWS environmental impact statements become part of the official public record. Requests for such comments will be handled in accordance with the Freedom of Information Act and the Council on Environmental Quality's NEPA regulations [40 CFR 1506.6(f)]. When requested, comment letters with the names and addresses of the individuals who wrote the comments will generally be provided. However, the telephone number of the commenting individual will not be provided in response to such requests to the extent permissible by law. Individual respondents may request that USFWS withhold their home address from the record, which we will honor to the extent allowable by law. If you wish to withhold your name and or address, you must state this prominently at the beginning of your comments.

Table S-2. Alternatives and Expected Actions Associated with Them.

Expected Actions	What is the risk to human safety?	Land-uses altered solely for grizzly bears?	Cost estimate for implementation?	How are linkage zones addressed?	Are habitat quality/size sufficient for recovery?	How would grizzly bears and their habitat be managed?	Where would grizzly bears be obtained and recovered?	Legislation needed to implement?
Alternatives								
Alternative 1 - Restoration of Grizzly Bears as a Nonesential Experimental Population with Citizen Management (Proposed Action)	Minimal before recovery. At recovered grizzly popn. levels, less than 1 injury per year and less than 1 human mortality every few decades.	None expected. To be determined by the Citizen Management Committee (CMC), if need for land-use restrictions arises.	Reintroduction phase (first 5 years) = \$2,168,160 Annual monitoring and management thereafter = \$193,000 per year.	No linkage zones designated.	Yes	IDFG/MDFWP in consultation with USFWS and the Nez Perce Tribe would manage and implement rules, policies, plans of CMC. Current land management agencies would continue to manage habitat.	Bitterroot Grizzly Bear Recovery Area (Figure S-2) = 5,785 square miles. Bears likely moved from existing popns. in U.S. and Canada and released into Selway-Bitterroot Wilderness.	Publish Special Rule in Federal Register to establish nonessential experimental population.
Alternative 1A - Restoration of Grizzly Bears as a Nonesential Experimental Population with USFWS Managemt.	Minimal before recovery. At recovered grizzly popn. levels, less than 1 injury per year and less than 1 human mortality every few decades.	None expected. To be determined by the USFWS if need for land-use restrictions arises.	Reintroduction phase (first 5 years) = \$2,068,160 Annual monitoring and management thereafter = \$173,000 per year.	No linkage zones designated.	Yes	Federal (USFWS) with active participation by IDFG, MDFWP and the Nez Perce Tribe. Current land management agencies would continue to manage habitat.	Bitterroot Grizzly Bear Experimental Area (Figure S-3) = 25,140 square miles. Bears likely moved from existing popns. in U.S. and Canada and released into Selway-Bitterroot Wilderness.	Publish Special Rule in Federal Register to establish nonessential experimental population.
Alternative 2 - The No Action Alternative - Natural Recovery	No risk unless bears move from other ecosystems to occupy the BE. Minimal risk until recovery, then same as Alt. 1.	Few expected. To be determined by USFWS, if illegal killing, research, or ESA Section 7 consultation warrants. Triggered on grizzly bear presence in BE.	Annual cost of monitoring and management for natural recovery = \$140,000 per year.	No linkage zones designated.	Yes	Federal (USFWS) would have authority for grizzly bear recovery. Current land management agencies would continue to manage habitat.	Bitterroot Grizzly Bear Recovery Zone (Figure S-4) = 5,500 square miles. No bears would be moved or released. Bears allowed to naturally recolonize from other existing populations.	None
Alternative 3 - No Grizzly Bear	Nonexistent.	None for grizzly bears.	Minimum total cost to develop legislation = \$2,000,000.	No linkage zones designated.	N/A	No agency management for recovery of grizzly bears.	Nowhere	Modify state (MT & ID) and federal laws. Change ESA.
Alternative 4 - Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and Habitat Restoration	Minimal before recovery. At recovered grizzly bear population levels, less than 1 injury per year and less than 1 human mortality every few decades.	No timber harvest or road construct. in roadless areas of recovery zone. Road densities reduced to <0.25 mi/sq.mi. in recovery zone. Other restrictions per Science Committee recommendation, and ESA Section 7 consultation.	Reintroduction phase (first 5 years) = \$2,143,160 Annual monitoring and management thereafter = \$188,000 per year.	Linkage zone designated between Bitterroot Ecosystem and Cabinet-Yaak Ecosystem.	Yes	Federal (USFWS) with active participation by IDFG, MDFWP and the Nez Perce Tribe, and in consultation with Scientific Committee. Current land management agencies would continue to manage habitat.	Bitterroot Grizzly Bear Recovery Zone (Figure S-5) = 21,645 square miles. Bears likely moved from existing populations in U.S. and Canada and released into Selway-Bitterroot Wilderness or roadless areas north of Lochsa River.	Laws that govern land management agencies on federal lands will have to be changed for USFWS to implement this alternative.
Alternative 4A - Restoration of Grizzly Bears as a Threatened Popn. with Full Protection of the ESA and USFWS Managemt.	Minimal before recovery. At recovered grizzly bear population levels, less than 1 injury per year and less than 1 human mortality every few decades.	To be determined by USFWS, if illegal killing, research, or ESA Section 7 consultation warrants.	Reintroduction phase (first 5 years) = \$2,143,160 Annual monitoring and management thereafter = \$188,000 per year.	No linkage zones designated.	Yes	Federal (USFWS) with active participation by IDFG, MDFWP and the Nez Perce Tribe. Current land management agencies would continue to manage habitat.	Bitterroot Grizzly Bear Recovery Zone (Figure S-6) = 21,645 square miles. Bears likely moved from existing populations in U.S. and Canada and released into Selway-Bitterroot Wilderness.	None

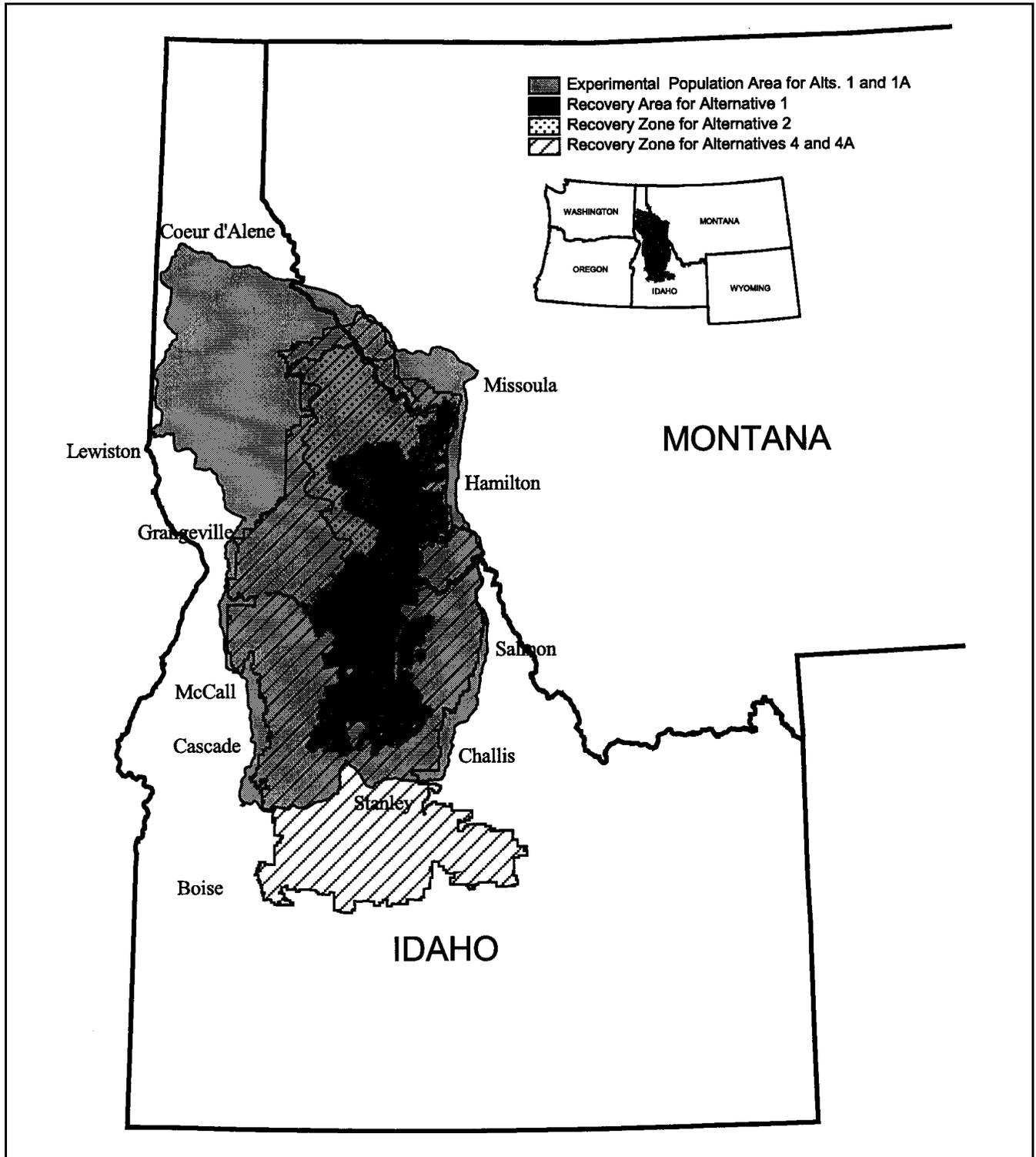


Figure S-7. Comparison of the Bitterroot Grizzly Bear Recovery Area for Alternative 1, Experimental Area for 1A, and Bitterroot Grizzly Bear Recovery Zones for Alternatives 2, 4, and 4A.

Table S-3. Expected Impacts of a Recovered Grizzly Bear Population by Alternative.

IMPACT	Impact on human health and safety	Impact on source grizzly bear populations	Impact on land-use activities to include: timber harvest, domestic livestock, and minerals extraction	Impact on wildlife populations	Impact on public access and recreational use	Social Impacts	Economic Impacts
	ALTERNATIVES						
Alternative 1 - Restoration of Grizzly Bears as a Nonesential Experimental Population with Citizen Management	Minimal risk of injury before recovery (50-110+ years). At recovery (280 bears) less than 1 injury per year, and less than 1 mortality every few decades.	Removal of bears from source populations would adhere to all management guides to protect source popn. health. Thus no impact to source popn. health.	No expected impacts to timber harvest or mining. At recovered population level (280 bears), 4-8 cattle and 5-44 sheep lost per year. Nuisance incidents = 0-74 per year.	Minimal impacts to wildlife. At recovered population levels, 280 bears would kill approximately 504 ungulates per year.	No road/trail closures expected. Changes to hunting seasons could occur due to possible conflicts.	Hardship due to nuisance incidents and sanitation requirements. Mixed impact due to knowledge of grizzly presence. Positive impact to Native American culture by recovering grizzlies.	Livestock loss: \$2,720-\$8,568/yr. Grizzly existence value: \$40.5-\$60.6 million per year. Reintroduction cost: \$433,632/year for first 5 yrs. Management cost: \$193,000 per year after first 5 yrs.
Alternative 1A - Restoration of Grizzly Bears as a Nonesential Experimental Population with USFWS Management.	Minimal risk of injury before recovery (50-110+ years). At recovery (280 bears) less than 1 injury per year, and less than 1 mortality every few decades.	Removal of bears from source populations would adhere to all management guides to protect source popn. health. Thus no impact to source popn. health.	No expected impacts to timber harvest or mining. At recovered population level (280 bears), 4-8 cattle and 5-44 sheep lost per year. Nuisance incidents = 0-74 per year.	Minimal impacts to wildlife. At recovered population levels, 280 bears would kill approximately 504 ungulates per year.	No road/trail closures expected. Changes to hunting seasons could occur due to possible conflicts.	Hardship due to nuisance incidents and sanitation requirements. Mixed impact due to knowledge of grizzly presence. Positive impact to Native American culture by recovering grizzlies.	Livestock loss: \$2,720-\$8,568/yr. Grizzly existence value: \$40.5-\$60.6 million per year. Reintroduction cost: \$413,632/year for first 5 yrs. Management cost: \$173,000 per year after first 5 yrs.
Alternative 2 - The No Action Alternative - Natural Recovery	If bears recolonize, risk minimal until recovery (150+ years), then same as Alternative 1.	Bears would not be relocated under Alternative 2. No impact.	If bears recolonize, Section 7 consultation could reduce timber harvest and mining. At recovery (280) bears, 1-3 cattle & 1-6 sheep lost per yr. Nuisance incidents = 0-74/yr.	If recolonization occurs, minimal impact until recovery, then same as Alternative 1.	If bears recolonize, possible road/trail closures due to Section 7. Hunting season changes could occur also.	If recolonization occurs, then same as Alternative 1. Also negative impact of jobs lost to local communities.	If bears recolonize, possible loss of 55-264 timber jobs. No existence value. Management cost until recovery = \$140,000/ year.
Alternative 3 - No Grizzly Bear	No impact.	Bears would not be relocated under Alt. 3. No impact.	No impact.	No impact.	No impact.	No impact to local communities. Negative impact to Native Americans	Total cost of \$2 million over several years to change federal and state laws.
Alternative 4 - Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and Habitat Restoration	Same as Alternative 1, except time to recovery is minimum 65-70 years, and likely more than 125 years.	Same as Alternative 1. Thus no impact to source population health.	ESA Section 7 consultation required. No road building or timber harvest on USFS roadless areas. Timber harvest & mining reduced. At 400 bears, 12-27 cattle & 41-355 sheep lost / yr. Nuisance incidents = 0-105 per year.	Minimal impacts to wildlife. At recovered population levels, 400 bears would kill approximately 720 ungulates per year.	Closure and reclamation of 3500 miles of roads. Other closures likely due to Sectn. 7. Hunting season changes, especially black bear.	Same as Alternative 1. Additional negative impact of lost jobs to local communities.	Hunting loss: \$288,700/yr. Livestock loss: \$10,552-\$47,915/year. Jobs lost: 117-1,136. Existence value: \$40.5 - \$60.6 million/year. Reintrod. cost: \$428,632/yr. Mgmt. cost: \$188,000/year after first 5 yrs
Alternative 4A - Restoration of Grizzly Bears as a Threatened Population with Full Protection of the ESA and USFWS Management	Same as Alternative 1, except time to recovery is minimum 65-70 years, and likely more than 125 years.	Same as Alternative 1. Thus no impact to source population health.	Sectn. 7 consultation could reduce timber harvest and mining. At population of 400 bears, 12-27 cattle & 41-355 sheep lost per year. Nuisance incidents = 0-105 per year.	Minimal impacts to wildlife. At recovered population levels, 400 bears would kill approximately 720 ungulates per year.	Possible road/trail closures due to Section 7. Hunting season changes could occur also.	Hardship due to nuisance incidents and sanitation reqs. Mixed impact due to knowledge of grizzly presence. Positive impact to Native American culture by recovering grizzlies.	Livestock loss: \$10,552-\$47,915/year. Jobs lost: 215-504. Existence value: \$40.5-\$60.6 million/year. Reintroduction cost: \$428,632/year for first 5 years. Management cost: \$188,000/year after first 5 years.