

Chapter 1 Purpose and Need for Action

Introduction

The Forest Service has prepared this Final Environmental Impact Statement in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This Final Environmental Impact Statement (FEIS) discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives.

Changes between the draft and final EIS include the addition of chapter 5 Response to Comments, development of one new alternative, updated effects analyses in chapter 3, some additional discussion on alternatives eliminated from detailed study, new literature references, and any needed clarification and corrections throughout the document. Changes between the draft and final EISs are shown at the beginning of each chapter.

Document Structure

This document is organized into five chapters:

- *Chapter 1. Purpose and Need for Action:* This chapter includes information on the history of the project proposal, the purpose and need for the project, and the agency's proposal for achieving the purpose and need. This section also details how the Forest Service informed the public of the proposal, how the public responded, and lists the issues related to the proposed action.
- *Chapter 2. Alternatives, Including the Proposed Action:* This chapter provides a more detailed description of the agency's proposed action as well as alternative methods for achieving the stated purpose. The preferred alternative is also described. These alternatives were developed based on issues raised by the public and other agencies. This discussion also includes mitigation measures. Finally, this section provides two summary tables: of the features of the alternatives considered in detail and of the environmental consequences associated with each alternative.
- *Chapter 3. Affected Environment and Environmental Consequences:* This chapter describes the environmental effects of implementing the proposed action and other alternatives. The analyses are organized by resource area.
- *Chapter 4. Consultation and Coordination:* This chapter provides a list of preparers, a distribution list of the FEIS, and a list of those who provided oversight during the development of the FEIS. Consultation with the U.S. Fish and Wildlife Service and Native American Tribes is documented.
- *Chapter 5. Response to Comments:* This chapter includes a summary of the comments and the Forest Service responses.
- *Appendices:* The appendices provide additional detailed information to support the analyses presented in the FEIS.

Additional documentation, including detailed analyses of project area resources, may be found in the project planning record located at the Shoshone National Forest, Supervisor's Office, 808 Meadow Lane Avenue, Cody, WY 82414-4549.

Chapter 1 Changes between Draft and Final EIS

In this chapter, the following updates and additions were made:

- The history of management actions related to habitat and mortality risk
- The discussion on potential for delisting
- The description of other related efforts
- The summary of public involvement
- The discussion on issues not addressed in this analysis

1.1 Grizzly Bear Conservation in the Greater Yellowstone Area

In 1975, the U.S. Fish and Wildlife Service (USFWS) listed the grizzly bear as a threatened species in the lower 48 states, placing the species under federal protection under the Endangered Species Act (ESA)¹ of 1973, as amended. Since listing, government agencies have worked to improve management coordination and habitat conditions, minimize grizzly bear/human conflicts and bear mortality, and increase public awareness and appreciation for the grizzly bear in the Greater Yellowstone Area (GYA).

Interagency Coordination

In 1975, land management agencies in the GYA initiated an effort to develop consistent management direction for grizzly bears. The first document, *Guidelines for Management Involving Grizzly Bears in the Greater Yellowstone Area*, was completed in 1979 (Mealey 1979). The USFWS determined in a Biological Opinion (USDI FWS 1979) that implementation of the Guidelines would promote conservation of the grizzly bear. The Interagency Grizzly Bear Committee (IGBC) was formed in 1983 to coordinate management and research more effectively for recovery of the grizzly bear. The original 1979 Guidelines were modified slightly and the updated version, the *Interagency Grizzly Bear Guidelines (Guidelines)* (IGBC 1986), was approved by the IGBC in 1986. Following management direction in the Guidelines, lands within the Yellowstone grizzly bear recovery zone were mapped and managed according to three different management situations². The recovery zone was defined as the area within which the population and habitat would be monitored to assess achievement of recovery and would be large enough and of sufficient habitat quality to support a recovered grizzly bear population. Beginning in 1979, habitats for grizzly bears inside the recovery zone in the GYA have been managed under direction specified in the Guidelines³; this direction has been instrumental in recovery of the grizzly bear in the GYA.

In 1983, the Yellowstone Ecosystem Subcommittee (YES), a subcommittee of the IGBC, was formed to coordinate efforts specific to the GYA. The YES is comprised of representatives of the Forest Service, National Park Service (NPS), Bureau of Land Management (BLM), USFWS, Wyoming Game and Fish Department, Idaho Department of Fish and Game, Montana Fish, Wildlife and Parks, county governments, and tribes. The Interagency Grizzly Bear Study Team (IGBST), created in 1973, provides scientific information from monitoring and other research that is used by the YES and the IGBC for adapting management and sustaining the recovered Yellowstone grizzly bear population. Scientific protocols have been developed to monitor the grizzly bear population and important habitat parameters.

Recovery Plan

The 1982 and 1993 Grizzly Bear Recovery Plans⁴ (USDI FWS 1982, USDI FWS 1993) were developed to identify actions necessary for the conservation and recovery of the grizzly bear. The 1993 Grizzly Bear Recovery Plan (Recovery Plan) required the documentation of the habitat necessary to support a recovered population, and referenced the existing grizzly bear recovery zone, divided into 18 bear management units (BMUs), to provide a basis for ensuring that grizzly bears and their habitats were well distributed across the recovery zone.

¹ In this FEIS all references to the Endangered Species Act of 1973 are to the Endangered Species Act of 1973, as amended.

² Management Situation 1: Grizzly habitat maintenance and improvement, and grizzly bear/human conflict minimization receive the highest management priority.

Management Situation 2: The grizzly bear is an important, but not the primary use of the area.

Management Situation 3: Grizzly habitat maintenance and improvement are not management considerations. For a complete description of the three management situations, see appendix B.

³ Most forests incorporated the 1986 Guidelines into their forest plans. Forest plans for the Custer and Beaverhead National Forests reference the 1979 Guidelines. The two Guidelines documents are very similar and all future references in this FEIS will refer to the 1986 Guidelines, unless otherwise stated.

⁴ The 1993 Recovery Plan is a revised and updated version of the original Recovery Plan, published in 1982. Throughout this FEIS, any reference to the Recovery Plan is to the 1993 version, unless otherwise stated.

The Recovery Plan defined a recovered grizzly bear population as one that could sustain a defined level of mortality, and is well distributed throughout the recovery zone. The Recovery Plan outlined a monitoring scheme that employed three demographic targets to measure and monitor recovery of the Yellowstone grizzly bear population.

- Maintain a minimum of 15 unduplicated females with cubs-of-the-year (COY) over a six-year average both inside the recovery zone and within a 10-mile area immediately surrounding the recovery zone.
- Sixteen of 18 BMUs within the recovery zone must be occupied by females with young, including COY, yearlings, or two-year olds, as confirmed by the IGBST from a six-year sum of observations. No two adjacent BMUs may be unoccupied during the same six-year period. This is equivalent to verified evidence of at least one female grizzly bear with young at least once in each BMU over a six-year period.
- The running six-year average for total known, human-caused mortality as confirmed by the IGBST is not to exceed 4 percent of the minimum population estimate. The running six-year average annual known, human-caused female grizzly bear mortality is not to exceed 30 percent of the 4 percent total mortality limit over the most recent three-year period. These mortality limits cannot be exceeded in any two consecutive years.

No critical habitat was designated, nor did the Recovery Plan specify recovery targets for habitat. Habitat management for grizzly bears in the GYA has been implemented according to the Guidelines. In 1994, The Fund for Animals, Inc., and 42 other organizations and individuals filed suit over the adequacy of the 1993 Recovery Plan. The Proposed Rule to remove the Yellowstone Distinct Population Segment from the federal list of endangered and threatened wildlife (USDI FWS 2005a) provides the necessary supplements to the Recovery Plan as ordered by the U.S District Court for the District of Columbia and subsequent settlement, including the addition of habitat-based recovery criteria. Those habitat-based recovery criteria are similar to the habitat standards identified in the proposed action in this document.

Land and Resource Management Plans for the Greater Yellowstone Area National Forests

The forest plans for the GYA forests were approved at various times between 1986 and 1997. Since their approval, the Forest Service has amended these plans with some amendments relating directly to the management of grizzly bear habitat. As a minimum, all six GYA forests included the Guidelines in their plans or incorporated them through amendment; some forests have incorporated additional direction for grizzly bear management. As a result, existing forest plan direction regarding grizzly bear habitat management and the age of that direction vary between the six GYA national forests. A summary of current forest plan direction related to habitat for grizzly bears is found in the description of Alternative 1 in chapter 2. USFWS biological opinions on the forest plans and amendments for the six GYA national forests have consistently noted that the implementation of the plans are not likely to jeopardize the continued existence of the grizzly bear.

Management Actions Related to Habitat and Mortality Risk

The following is a summary of the actions and projects that national forests have accomplished both inside and outside the recovery zone to maintain or improve grizzly bear habitat and reduce grizzly bear/human conflicts. A more detailed list of the actions and projects for each national forest is included in the project record.

Food storage orders/regulations. Forests began implementing food storage orders in the mid to late 1980s. Food storage orders require food and garbage to be stored properly so bears cannot obtain access to the food or garbage. Food storage orders have been applied to the recovery zone and many areas outside the recovery zone. In some areas where grizzly bears have expanded outside the recovery zone, some forests have implemented sanitation programs to reduce grizzly bear/human conflicts.

Bear resistant facilities/sanitation. Forests have provided bear resistant facilities (i.e., bear resistant food boxes, food tubes, garbage containers, meat hanging poles, panniers, etc.) at campgrounds, trailheads, dispersed campsites, and other areas. These bear resistant facilities have been provided within the recovery zone and some areas outside of the recovery zone. Some forests have programs to loan or rent bear resistant facilities for short-term uses. National forests have worked with local communities to fence garbage dumps and close garbage dumps to resolve conflicts with grizzly bears. The Forest Service has worked with communities, counties, and organizations to implement food and garbage storage ordinances and to provide bear resistant garbage containers on lands outside of the national forests.

Information and education. Substantial information and education materials (pamphlets, brochures, signs, videos, etc.) and programs have been provided to the public at all GYA Forest Service offices. Signs and brochures are available at campgrounds, trailheads, dispersed recreation sites, picnic areas, etc. Forests contributed financing for the production of the information and education film “Living in Grizzly Country.” Forests have cooperated with state wildlife management agencies and other cooperating institutions and individuals in giving “Living in Bear Country Workshops,” which include bear identification, safe camping, hiking, hunting, and working procedures to use in bear country, and the proper use of bear deterrent pepper spray. Wilderness rangers and other backcountry patrols have been used to inform and educate the public on food storage orders and check on compliance with these orders. Field patrols have been used during hunting seasons to reduce hunter-caused conflicts and grizzly bear mortalities.

Special grizzly bear requirements in contracts and permits. Contracts and special use permits contain clauses requiring protection of the grizzly bear and its habitat, as well as proper food storage and sanitation. Some contract and permit clauses require temporary or permanent cessation of permitted activities to resolve grizzly bear/human conflicts. Timber sale prescriptions and contracts incorporate provisions to protect grizzly bear habitat; for example, silvicultural prescriptions maintain or enhance food sources, timing clauses reduce chances of grizzly bear/human conflicts, and contract clauses require proper food storage and sanitation and temporary or permanent cessation of permitted activities to resolve grizzly bear/human conflicts. Oil and gas leases have been modified, including food storage requirements and seasonal use restrictions, to protect grizzly bear habitat.

Access restrictions/regulations. Off road vehicle use has been restricted to designated routes in the Montana GYA national forests since 2001 (USDI BLM and USDA Forest Service 2001) All other forests in the GYA restrict use to designated routes, with a few exceptions. In November 2005, the Forest Service published the Travel Management Final Rule, governing off-highway vehicles and other motor vehicle use on national forests and grasslands (USDA 2005e). This Final Rule requires each national forest to identify and designate those roads, trails, and areas that are open to motor vehicle use. All national forests are expected to comply with the new rule within the next four years.

During the last two decades, roads and trails have been decommissioned (permanently closed) to provide security for grizzly bears. Many areas within and outside the recovery zone have been closed to cross-country motorized travel to provide security and habitat protection. Areas have been closed to overnight camping to avoid grizzly bear/human conflicts. Temporary area closures have been implemented when necessary to resolve grizzly bear/human conflicts. Annual monitoring is performed to evaluate compliance with access restrictions and to provide information and education to the public. Gates and signs are maintained annually. The Forest Service has completed formal consultation with the USFWS on the effects of snow machine use on grizzly bears. Important food sites (such as army cutworm moth sites) have been identified, with management emphasis to keep new trails and other human activities away from these sites.

Black bear baiting. In Idaho and Wyoming, forests have worked with state wildlife management agencies to prohibit black bear baiting within the recovery zone, and to educate hunters on the identification of grizzly bears. Black bear baiting is illegal in Montana.

Whitebark pine. Whitebark pine seeds are an important food source for grizzly bears. The Greater Yellowstone Whitebark Pine Subcommittee and the Greater Yellowstone Whitebark Pine Monitoring Group were formed to gather information on the status of this tree in the GYA. Current work on whitebark pine includes planting in several areas of the GYA to provide long-term habitat improvement, cone collection from healthy superior trees, silvicultural treatments to improve growth and establishment, prescribed burning to encourage whitebark pine seedling establishment, inventories to locate superior trees that appear resistant to blister rust, work to prevent mountain pine bark beetle attacks on superior trees, and reading of whitebark pine cone production transects every year in cooperation with the IGBST. In 2004, 51 transects were established and monitored by the Greater Yellowstone Whitebark Pine Monitoring Group to evaluate the viability and health of whitebark stands inside the grizzly bear recovery zone. In 2005, 76 transects were established and monitored outside the PCA.

Planning, coordination, monitoring, and cooperation. The Guidelines, developed in cooperation with other federal and state agencies, have been incorporated into existing forest plans and have provided the overall management direction for maintaining or improving grizzly bear habitat on National Forest System lands. Forest Service personnel contributed to the development of the Conservation Strategy and the state management plans for the grizzly bear, and participated in annual coordination meetings with state agencies, other federal agencies, organizations, and various committees. In cooperation with other federal agencies, the Forest Service developed the grizzly bear Cumulative Effects Model (CEM) (Weaver et al. 1986, Bevins 1997, Dixon 1997, Mattson et al. 2004) to help assess the habitat value and habitat effectiveness of grizzly bear habitat within the recovery zone. The Forest Service cooperates in the collection of data on the grizzly bear population and habitat throughout the GYA. The national forests also work cooperatively with the USFWS and state wildlife management agencies on nuisance grizzly bear management.

Livestock grazing. To resolve conflicts with grizzly bears, many domestic sheep allotments both within and outside the recovery zone have been closed. Portions of cattle allotments have been rested from cattle grazing to reduce conflicts with grizzly bears, and one cattle allotment has been closed to grazing. Livestock grazing permits include special provisions such as proper food and attractant storage and carcass removal. Annual monitoring of livestock allotments is performed to check on compliance and conflicts. Animal carcasses are disposed of to reduce conflicts with grizzly bears.

Land adjustment. On the Gallatin, Shoshone, and Targhee National Forests, important grizzly bear habitat has been acquired through land exchanges and acquisitions.

Conservation Strategy

The Recovery Plan called for the development of a grizzly bear conservation strategy to 1) describe and summarize habitat and population management, and 2) demonstrate the adequacy, continuity, and continued agency application of population and habitat management regulatory mechanisms. Development of a conservation strategy began in 1993, when biologists representing federal and state land and wildlife management agencies were appointed to the Interagency Conservation Strategy Team. In March 2000, a draft conservation strategy was released to the public for review and comment. In 2003, the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (Conservation Strategy) (Interagency Conservation Strategy Team 2003) was released. The Conservation Strategy

- Describes and summarizes the coordinated efforts to manage the grizzly bear population and its habitat to ensure continued conservation in the GYA
- Specifies the population, habitat, and nuisance bear standards to maintain a recovered grizzly bear population

Grizzly Bear Conservation in the Greater Yellowstone Area

- Documents the regulatory mechanisms and legal authorities, policies, and management and monitoring programs that exist to maintain a recovered grizzly bear population
- Documents the commitment of the participating agencies

The Conservation Strategy was developed to be the document guiding management and monitoring of the Yellowstone grizzly population and its habitat upon recovery and delisting. The Conservation Strategy describes a Primary Conservation Area (PCA), which is the Yellowstone grizzly bear recovery zone identified in the Recovery Plan. Upon implementation of the Conservation Strategy, management using grizzly bear management situations would no longer be necessary. The PCA boundary would replace the recovery zone boundary.

Upon delisting, land management agencies would work cooperatively with state wildlife agencies to meet identified population and habitat goals for grizzly bears in the GYA. The process of implementing these goals would be coordinated by the Yellowstone Grizzly Coordinating Committee⁵ (YGCC), representing all the agencies with responsibility for grizzly bear and grizzly bear habitat management in the GYA. Counties and tribes would also have representation on this committee. The Conservation Strategy emphasizes the importance of continued coordination and cooperative working relationships among management agencies to continue application of best scientific principles and maintain effective actions to benefit the coexistence of grizzly bears and humans in the ecosystem. The YGCC is committed to an adaptive management process; based on the best biological data and the best available science, management direction could be revised and the Conservation Strategy amended. Any such amendments would be subject to public review and comment. Amendments would be made by the YGCC with a majority vote.

Monitoring required under the Conservation Strategy would be summarized and reviewed by the IGBST annually. A Biology and Monitoring Review would be undertaken after the annual summary of monitoring information is presented to the YGCC and in response to deviations from required population or habitat standards.

A Biology and Monitoring Review examines management of habitat, populations, or efforts of participating agencies to complete required monitoring. Any YGCC member agency can request that a Biology and Monitoring Review be considered. Such consideration would be a topic for discussion by the YGCC and the review would be initiated based on the decision of the YGCC. The Biology and Monitoring Review process would be completed within six months and the written report presented to the YGCC and made available to the public.

Two of the purposes of a Biology and Monitoring Review related to adaptive management are:

- To identify the reasons why particular demographic or habitat objectives have not been achieved and to recommend modifications to the YGCC for changes as necessary
- To consider and establish a scientific basis for possible changes in management due to changed conditions in the ecosystem and make those recommendations to the YGCC

Idaho, Montana, and Wyoming State Grizzly Bear Management Plans

The states of Idaho, Montana, and Wyoming developed state grizzly bear management plans that would be implemented when the grizzly bear is delisted. The state plans were incorporated as integral parts of the Conservation Strategy. These state grizzly bear management plans recommend and encourage land management agencies to maintain or improve habitats that are important to grizzly bears and to monitor habitat conditions outside the PCA. Each state recognizes the importance of motorized access management and road density issues related to grizzly bears and other wildlife. This access management issue has also been recognized in each state's elk management efforts.

Each state plan includes nuisance bear guidelines for areas within the respective states outside the PCA, encourages proper sanitation and other efforts to minimize grizzly bear/human and grizzly

⁵ The YGCC (Yellowstone Grizzly Coordinating Committee) replaces the YES (Yellowstone Ecosystem Subcommittee) when the grizzly bear is delisted.

bear/livestock conflicts, promotes educating the public on safety in bear country, identifies the importance of coordination with land management agencies, recognizes the importance of balancing the needs of grizzly bears with other resource values and uses, and identifies regulated hunting as a future management tool.

Population monitoring information required by the Conservation Strategy would be collected in a consistent manner under each state plan and submitted annually for inclusion in the IGBST Annual Report. Part of the Conservation Strategy's adaptive process is to determine allowable mortality by state to ensure that the overall mortality quota for the GYA is not exceeded. This allocation is especially important as occupancy goals within states are met and regulated hunting seasons are considered. How the mortality would be divided among states is currently being evaluated in cooperation with the IGBST. The state wildlife management agencies are designated as members of the YGCC and would participate in annual monitoring reviews and adaptive management decisions. Each state has signed the Memorandum of Understanding agreeing to implement the Conservation Strategy.

Wyoming Grizzly Bear Management Plan. The plan identifies a 12 million-acre Grizzly Bear Data Analysis Unit (GBDAU) where the Wyoming Game and Fish Department would manage for grizzly bear occupancy. Grizzly bear dispersal and occupancy would be discouraged on private lands and on some public lands in the GBDAU that were determined to be socially unacceptable for grizzly bear occupancy. The area north of the Snake and Hoback Rivers and Boulder Creek in the Wind River Mountains on National Forest System lands has been identified as biologically suitable and socially acceptable for grizzly bear occupancy. All females with COY documented within the entire GBDAU would be used to estimate population size and all human-caused mortalities within the entire GBDAU would be applied to the allowable mortality threshold identified in the Conservation Strategy for the entire GYA population. Grizzly bears would not be allowed to occupy habitats outside the GBDAU and any bears killed outside would not count toward the overall mortality limits.

Grizzly Bear Management Plan for Southwestern Montana. The grizzly bear management area in southwest Montana is identified as a seven-county area adjacent to or near Yellowstone National Park. Not all portions of the counties are suitable grizzly bear habitat. The plan notes, "To maximize the area of Montana that is 'socially acceptable' grizzly bear range, the state planning and management effort will employ an adaptive learning process to develop innovative, on the ground management." The plan recognizes that grizzly bear distribution is increasing and would be allowed to continue and identifies a long-term goal of allowing the grizzly populations in western Montana to reconnect by occupying currently unoccupied habitats.

State of Idaho Yellowstone Grizzly Bear Management Plan. The plan does not specifically identify a management area for grizzly bears in eastern Idaho, but rather identifies the generally biologically suitable areas where bears are likely to occur during the next 10 years. These areas are primarily on the Caribou-Targhee National Forest with some suitable habitat on state and private lands adjacent to National Forest System lands. Areas suitable for occupancy and expansion in eastern Idaho are somewhat limited compared to Montana and Wyoming. The plan recognizes that bears can successfully occupy a wide range of habitats. Bears would be allowed to expand to suitable habitats but would not be tolerated in areas with high human activity and/or development.

Current Population Characteristics

All demographic recovery targets identified in the Recovery Plan were met from 1998 through 2003. Although mortality limits for female grizzly bears were exceeded in 2004, the numbers of females with COY at the end of 2004 were more than double the target identified in the Recovery Plan. At the end of 2004, the minimum population estimate was 431 bears, the running six-year average of known and probable human-caused grizzly bear mortality was 13.3, and the running-six-year average of known and probable human-caused female grizzly bear mortality was 6.0. The total mortality is under the mortality threshold set in the Recovery Plan, but the female mortality exceeds the mortality threshold set in the Recovery Plan (Figure 32). Beginning in

Purpose and Need for Action

2000, the number of mortalities counted each year includes known and probable mortalities, but the mortality thresholds are set using only the minimum population estimate. The YES has approved new analysis protocols for estimating total population and sustainable mortality limits developed by the IGBST. This methodology will be incorporated into the Recovery Plan and appended to the Conservation Strategy.

The grizzly bear population continues to expand in distribution and increase in numbers (Eberhardt et al. 1994, Boyce 1995, Boyce et al. 2001, Schwartz et al. 2002, Interagency Conservation Strategy Team 2003, Schwartz et al. 2005d). Section 3.3.3 provides a more detailed description of the status of the Yellowstone grizzly bear population.

Potential for Delisting

The USFWS reviewed the status of the Yellowstone grizzly bear population under the ESA. The Proposed Rule designating the Greater Yellowstone population of grizzly bears as a distinct population segment and removing it from protection under the Endangered Species Act was published in the Federal Register November 17, 2005 (USDI FWS 2005a). The Proposed Rule evaluates the status of the population according to the five factors in the Endangered Species Act section 4(a)(1). This analysis includes an evaluation of threats that existed at the time of listing and those that currently exist or that could potentially affect the species in the foreseeable future once the protections of the ESA are removed. These factors include threats to the habitat, over utilization, disease or predation, the inadequacy of existing regulatory mechanisms, and other factors affecting the continued existence of the species. The Proposed Rule identifies potentially suitable grizzly bear habitat in the GYA, provides the necessary supplements to the Recovery Plan as ordered by the U.S District Court for the District of Columbia and subsequent settlement, and appends the revised methodology for calculating total population size and establishing sustainable mortality limits to the Recovery Plan and the Conservation Strategy.

A public comment period and public hearings followed publication of the Proposed Rule. The USFWS will consider and incorporate public comments and new information as a result of the comment period. Remaining USFWS actions include publication of the Final Rule in the Federal Register that either removes the Yellowstone population from protection under ESA or maintains the existing status as threatened.

1.2 Purpose and Need for Action

The management of grizzly bear habitat on national forests in the GYA is a dynamic process. Experience provides the public and land managers with new understanding and insights regarding the conservation of grizzly bear habitat. Scientific research continues to bring forth new theories, observations, and findings relevant to the management of these resources. This learning is continuous. Most importantly, the Yellowstone grizzly bear population has increased over the past 25 years to the point where all demographic targets in the Recovery Plan were met or exceeded by 1998. As a result, the USFWS reviewed the status of the Yellowstone grizzly bear population to determine whether protection under the ESA is still warranted. Part of the Status Review involved a determination of the adequacy of regulatory mechanisms and an evaluation of the threats to the habitat of the grizzly bear in the GYA. On November 17, 2005, the USFWS published the Proposed Rule to delist the Yellowstone population.

The proposed action to amend the six GYA national forests' forest plans has been initiated to incorporate the habitat standards and other relevant provisions in the Conservation Strategy into the forest plans of the six GYA national forests.

The purpose of this proposal is to:

- Ensure conservation of habitat to sustain the recovered Yellowstone grizzly bear population
- Update the management and monitoring of grizzly bear habitat to incorporate recent interagency recommendations and agreements, as described in the Conservation Strategy
- Improve consistency among GYA national forests in managing grizzly bear habitat

- Ensure the adequacy of regulatory mechanisms for grizzly bear habitat protection upon delisting as identified in the Recovery Plan

There is a need to improve the coordination and consistency of forest plan direction in the GYA regarding grizzly bear habitat management, and to update this direction to reflect new management insight, the latest scientific information, and the changing characteristics of the Yellowstone grizzly bear population. Direction for managing the grizzly bear was developed through a nine-year interagency effort documented in the Conservation Strategy. There is a need to clarify forest plan grizzly bear habitat management direction with the pending change in the Yellowstone grizzly bear population's status under the ESA. Further, there is a need to maintain habitat conditions in the PCA to sustain the recovered grizzly bear population in the foreseeable future.

1.3 Proposed Action

The proposed direction is tied to the purpose and need and is summarized below. (The proposed action was the starting point for this environmental analysis and is represented by Alternative 2. The preferred alternative in this FEIS is Alternative 2-Modified.) Both the proposed action and the preferred alternative incorporate an adaptive management approach where monitoring results would be used to modify management direction as necessary.

The Forest Service proposes to amend the forest plans for the Beaverhead, Bridger-Teton, Custer, Gallatin, Shoshone, and Targhee National Forests.

The following definitions apply to the descriptions of management direction shown in Figure 1.

Goals are concise statements that describe a desired condition to be achieved sometime in the future. Goals are normally expressed in broad general terms and are timeless in that there is no specific date by which goals are to be completed. Goal statements form the principal basis from which objectives are developed.

Objectives are concise time-specific statements of measurable plan results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

Standards are measurable constraints on management activities or practices often expressed as a maximum or minimum. Deviation from compliance with a standard requires a forest plan amendment.

Guidelines represent a preferred or advisable course of action that is generally expected to be carried out. Deviation from compliance with a guideline does not require a forest plan amendment, but the rationale for such a deviation shall be documented in the project decision document.

Scope

Figure 1. Summary of direction under the proposed action (Alternative 2) within the PCA.

Goal	Manage grizzly bear habitat within the PCA to sustain the recovered Yellowstone grizzly bear population.
Standard 1 Secure Habitat	Maintain the percent of secure habitat in BMU subunits at or above 1998 levels. Temporary and permanent changes are allowed under specific conditions identified in the Application Rules.
Standard 2 Developed Sites	Maintain the number and capacity of developed sites at or below 1998 levels, with the following exceptions: any proposed increase, expansion, or change of use of developed sites from the 1998 baseline must be consistent with the Application Rules and will be analyzed, and potential detrimental and positive impacts documented, through biological evaluation or assessment.
Standard 3 Livestock Grazing	Do not create new active commercial livestock grazing allotments and do not increase permitted sheep AMs from the 1998 baseline. Monitor, evaluate, and phase out remaining domestic sheep allotments as opportunities arise with willing permittees. Implementation must be consistent with the Application Rules.
Standard 4	The Guidelines and Management Situations no longer apply ⁶ .
Standard 5 Nuisance Bears	Coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.
Guideline 1 Motorized Access	Use localized area restrictions to address conflicts with winter use activities, where conflicts occur during denning or after bear emergence in the spring.
Monitoring Item 1	Monitor, compare to the 1998 baseline, and annually submit for inclusion in the Interagency Grizzly Bear Study Team Annual Report: secure habitat, open motorized access route density (OMARD) greater than one mile/square mile, and total motorized access route density (TMARD) greater than two miles/square mile.
Monitoring Item 2	Monitor, and annually submit for inclusion in the Interagency Grizzly Bear Study Team Annual Report: changes in the number and capacity of developed sites on the national forest, and compare with the 1998 baseline identified in appendix A.
Monitoring Item 3	Monitor, compare to the 1998 baseline, and annually submit for inclusion in the Interagency Grizzly Bear Study Team Annual Report: the number of commercial livestock grazing allotments on the national forest and the number of permitted domestic sheep AMs (animal month ⁷) within the PCA.
Monitoring Item 4	Measure changes in seasonal habitat effectiveness in each BMU and subunit by regular application of the Cumulative Effects Model (CEM) or the best available system and compare outputs to the 1998 baseline. Annually review CEM databases, and update as needed. When funding is available, monitor representative trails or access points where risk of grizzly bear mortality is highest.

Application Rules and definitions for Standards 1 through 3 are described in detail in chapter 2.

1.4 Scope

Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The proposed action and alternatives consist of goals, objectives, standards, and guidelines, and will not establish new management areas, nor change suitability designations. The analysis evaluates five alternatives:

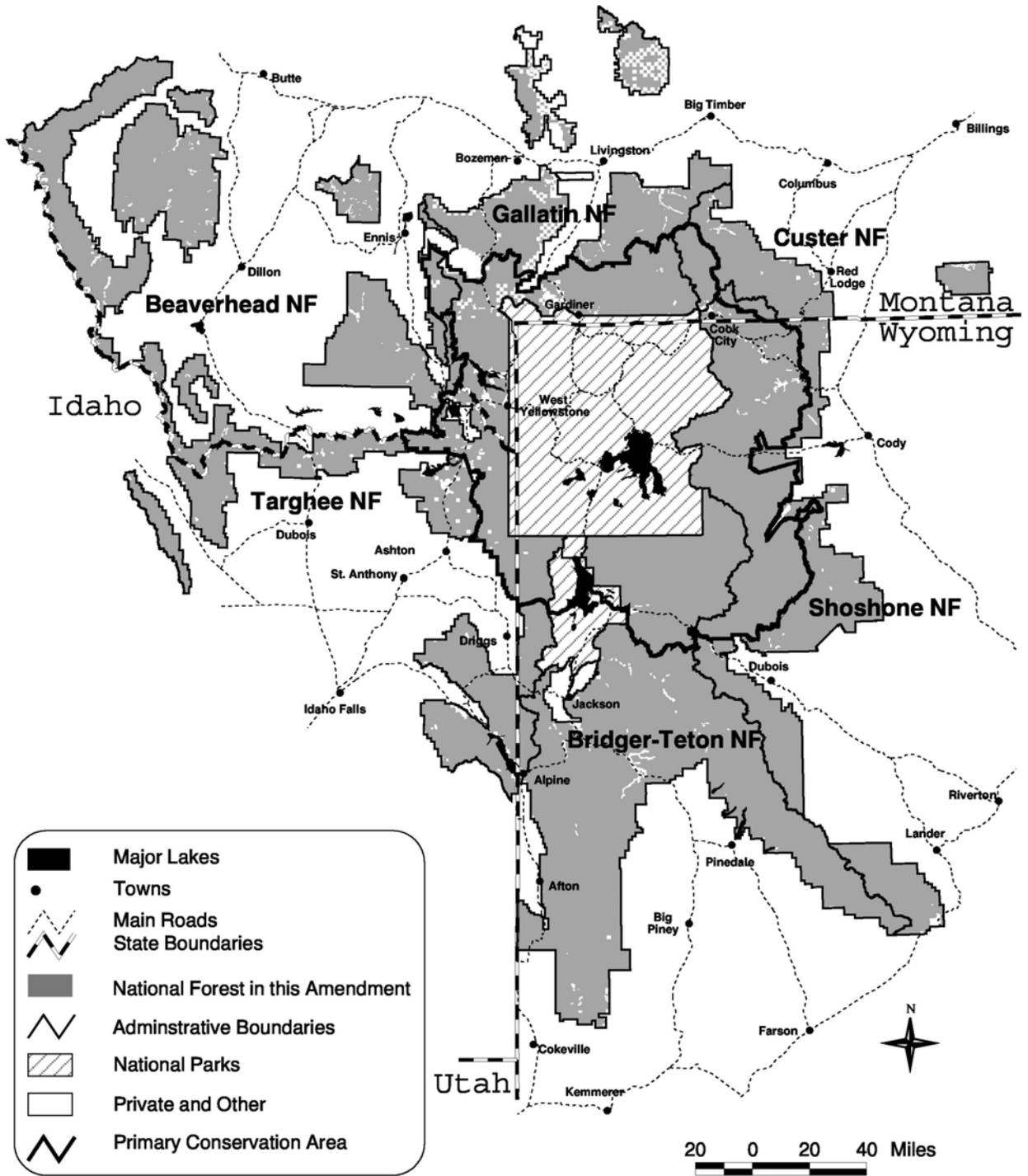
- Alternative 1, the no action alternative
- Alternative 2, the proposed action
- Alternative 2-Modified, the preferred alternative
- Other reasonable courses of action, Alternatives 3 and 4

This analysis evaluates the direct, indirect, and cumulative effects of the proposed action and alternatives.

⁶ An exception is the Caribou-Targhee National Forest. The use of management situation lines is an integral part of management under the Targhee National Forest 1997 Revised Forest Plan.

⁷ One animal month (AM) is one sheep, cow, or horse with or without young grazing on an allotment for one month.

Figure 2. The six GYA national forests and the Primary Conservation Area (PCA) boundary.



Scope

The proposed action is focused on grizzly bears and grizzly bear habitat and does not direct all actions that relate to grizzly bear management. Other actions related to grizzly bears and grizzly bear habitat that can occur outside this proposal are:

- Coordination among governments and organizations through MOUs, agreements, and other organizing structures
- Information and education about the bear through the general operations of the agency
- Continued implementation of food storage orders and associated efforts to keep attractants unavailable to bears (new or changes in food storage orders could occur as local situations warrant)
- Special management emphasis for the grizzly bear under the Forest Service directives system, once the bear is removed from protection under the ESA. Existing manual direction for grizzly bears would be modified to be consistent with the designation of the grizzly bear as a sensitive species.

The geographic area of interest for the proposed action is the Primary Conservation Area (PCA) (Figure 2).

This proposed action is programmatic in nature and guides implementation of site-specific projects that tier to forest plans. Additional NEPA compliance would be required for site-specific projects as part of a two-stage decision making process. For example, an alternative that has a standard that increases secure habitat and requires motorized route closures represents a programmatic decision and would have no direct effects. Any direct effects would occur later at the project level when site-specific decisions are made about motorized access restrictions. Most of the effects identified in this analysis would be indirect effects in that they would occur later in time because of this programmatic decision.

Six national forests in Forest Service Region 1 (Northern Region), Region 2 (Rocky Mountain Region), and Region 4 (Intermountain Region) are part of this proposal. Reconsideration of other goals, objectives, land allocations, and other direction in a forest plan are not part of this proposed action, but may be addressed when forest plans are revised. Figure 3 lists the schedule for forest plan revisions. The forest plans affected by this proposal are different from the administrative units affected because some units have been consolidated.

Figure 3. Units and plans affected by this proposal.

National forest	Forest Service region	Land and resource management plan to be amended	Year plan approved	Year scheduled for plan revision completion ¹
Beaverhead-Deerlodge	Region 1	Beaverhead Forest Plan	1986	2006
Bridger-Teton	Region 4	Bridger-Teton National Forest Land and Resource Management Plan	1990	2007
Caribou-Targhee	Region 4	1997 Revised Forest Plan—Targhee National Forest	1997	2010
Custer	Region 1	Custer National Forest and Grasslands Land and Resource Management Plan	1986	2009
Gallatin	Region 1	Gallatin National Forest Plan	1987	2009
Shoshone	Region 2	Shoshone National Forest Land and Resource Management Plan	1986	2007

¹ USDA Forest Service 2005d.

1.5 Decision Framework

This FEIS was prepared to evaluate the effects of the proposed action and to look at alternative ways of achieving the purpose and need, while responding to the significant issues. The FEIS is being accomplished through an intra-agency agreement called Greater Yellowstone National Forests Coordinated Grizzly Bear Amendments between the Beaverhead-Deerlodge National Forest, Bridger-Teton National Forest, Caribou-Targhee National Forest, Custer National Forest, Gallatin National Forest, Shoshone National Forest, Intermountain Region Regional Office, Northern Region Regional Office, and the Rocky Mountain Region Regional Office that was signed in May 2003. The agreement called for establishing a core interdisciplinary team and an extended team of resource specialists to assist with effects analyses and write-ups. A steering team comprised of the six forest supervisors and key personnel from regional offices helped guide this effort.

All requirements under Section 7 of the ESA were completed for all listed species.

The proposed action and the preferred alternative do not propose to change management prescriptions or alter management area boundaries, and do not propose to alter the desired future condition of the land and resources.

Given the purpose and need, the responsible officials will decide whether to amend forest plans to ensure conservation of habitat to support the recovered grizzly bear population by incorporating standards, guidelines, and monitoring requirements from the Conservation Strategy, and if so, what that direction would contain.

Responsible Officials

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The selected alternative, as described in the Record of Decision, is proposed to go into effect when all partner agencies have signed the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area, the Final Rule delisting the Yellowstone grizzly population has been published in the Federal Register, and the Record of Decision has been signed for the Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests. If the grizzly bear is not delisted, existing forest plan direction for grizzly bears would remain in place.

Grizzly bear management direction for Yellowstone and Grand Teton National Parks is being updated to incorporate relevant portions of the Conservation Strategy. Upon delisting, the states

Decision Framework

of Idaho, Montana, and Wyoming would manage grizzly bear populations as directed by the Conservation Strategy and associated state grizzly bear management plans. This proposal is an integral part of the interagency efforts agreed to under the Conservation Strategy for management of the recovered grizzly bear population in the GYA.

Additional direction for the grizzly bear, including but not limited to, guidance on information and education, coordination with other agencies on project level analyses for habitat connectivity, and the designation of the grizzly bear as a regionally sensitive species, would be promulgated, as necessary, through the Forest Service directives system and special orders.

Other Related Efforts

Canada lynx

The Forest Service is currently in the process of amending 18 forest plans in the northern Rockies (Northern Rockies Lynx Amendment) (USDA Forest Service and USDI BLM 2004a) to incorporate recommended management direction for lynx conservation that was not included in the existing plans. The management direction proposed for the Northern Rockies Lynx Amendment was developed by an interagency team of government biologists and was written into the Lynx Conservation Assessment and Strategy (Ruediger et al. 2000). Canada lynx were listed as a threatened species in 2000 due to lack of guidance for conservation of lynx and snowshoe hare habitat in existing plans. The recommended management direction focuses on managing vegetation within the historic range of variability, maintaining dense understory conditions for prey (primarily snowshoe hares) by limiting pre-commercial thinning with some exceptions, recommending no expansion of snow routes and play areas in lynx habitat to minimize snow compaction, and identifying and maintaining connectivity within and between habitat areas. Lynx habitat exists within the lodgepole pine, subalpine fir, and Engelmann spruce forests within the six GYA national forests.

In 2005, the Proposed Rule to designate critical habitat for the Canada Lynx was published in the Federal Register (USDI FWS 2005b). The GYA is not recommended as critical habitat in the Proposed Rule. The USFWS is developing a recovery plan for the Canada lynx.

Forest Health Initiatives

Based on direction in the National Fire Plan, the Healthy Forests Initiative, and the Healthy Forests Restoration Act of 2003, the Forest Service has initiated proposals for maintaining or restoring healthy forests and lands by reducing heavy fuel loading and insect and disease risks. Management of vegetation and reduction of fuel loadings is generally emphasized around structures, called the wildland urban interface. The effects of this proposed action and the alternatives on these initiatives are briefly discussed in chapter 3.

Roadless

Since 2000, the Forest Service has had various roadless management policies in place. In May 2005, the Department of Agriculture announced the adoption of a Final Rule (USDA Forest Service 2005f) that establishes a process for governors to propose locally supported regulations for conserving inventoried roadless areas within their states.

Forest Plan Revision and other Amendments

Five GYA national forests will revise their forest plans in the next few years, as shown in Figure 3. Six national forests in Forest Service Region 1 (Northern Region), Region 2 (Rocky Mountain Region), and Region 4 (Intermountain Region) are part of this proposal. Reconsideration of other goals, objectives, land allocations, and other direction in a forest plan are not part of this proposed action, but may be addressed when forest plans are revised. The forest plans affected by this proposal are different from the administrative units affected because some units have been consolidated. Additionally, the Gallatin National Forest is amending its forest plan for travel management. All national forests will comply with the Travel Management Final Rule (USDA Forest Service 2005e) within the next four years and provide a system of national forest roads,

trails, and areas on National Forest System lands that are designated for motor vehicle use by class and if appropriate, by season.

National Park Plans

Yellowstone National Park and Grand Teton National Park manage bears under the Guidelines and respective park General Management Plans. Until such time that each park is able to incorporate the Conservation Strategy into its General Management Plan, the parks would implement the Conservation Strategy by amending their respective Superintendents' Compendiums, followed by concurrence from the Regional Director that this mechanism would stand in place until each Park is able to incorporate the Conservation Strategy into a General Management Plan. The superintendents of each park would incorporate the guidelines and procedures outlined in the Conservation Strategy during their next respective updates of the park General Management Plans.

National Elk Refuge

The National Elk Refuge and Grand Teton National Park are developing an updated plan for the management of elk and bison. A draft EIS (USDI FWS NPS 2005) was released in July 2005 and the final EIS is scheduled for release in 2006. This effort involves addressing problems related to high animal concentrations and effects on habitat. The proposed action in the draft EIS calls for a reduction in the number of wintering bison and elk from current levels, restoration of habitat and improvement of forage, and phasing back supplemental feeding. Hunting in the Park and on the Refuge would be used to achieve population objectives.

1.6 Public Involvement

The Notice of Intent to prepare an environmental impact statement was published in the Federal Register on July 16, 2003. The Notice of Intent asked for public comment on the proposal from July 16 through August 15, 2003. On August 12, 2003, a revised Notice of Intent was published, extending the comment period to September 2, 2003. As part of the public involvement process, a description of the proposed action was:

- Mailed to 3,577 individuals, organizations, and agencies in July 2003
- Published in news releases in local Greater Yellowstone Area newspapers
- Posted on the Web at http://www.fs.fed.us/r1/wildlife/igbc/Subcommittee/yes/YEamend/gb_internet.htm
- Listed on each forest's quarterly Schedule of Proposed Actions report beginning in the summer of 2003

Briefings were held with individuals and organizations, as requested. An email address was established to receive comments electronically. Nearly 55,000 responses were received, including 396 original responses and 54,505 organized campaign responses.

The DEIS was published August 13, 2004.

The Notice of Availability of the DEIS was published in the Federal Register on August 13, 2004. Documents (DEIS, abstract and Web address, and/or executive summary) were:

- Mailed to 872 individuals, organizations, and agencies
- Posted on a Web site and available for downloading at http://www.fs.fed.us/r1/wildlife/igbc/Subcommittee/yes/YEamend/gb_internet.htm

News releases were published in local newspapers in the GYA and the proposal was listed in each forest's Schedule of Proposed Actions quarterly report beginning in the summer of 2003.

Five open houses were held throughout the GYA at the following places and times:

- September 9, 2004 at Cody, WY in the EOC Room at the County Courthouse
- September 10, 2004 at Alpine, WY at the Alpine Civic Center

Issues

- September 14, 2004 at Idaho Falls, ID in the Conference Room at the Caribou-Targhee National Forest
- September 15, 2004 at Bozeman, MT at the Holiday Inn
- September 16, 2004 at Billings, MT in the Conference Room at the Custer National Forest Supervisor's Office

One additional meeting was held on September 30, 2004 in Jackson, Wyoming.

The comment period on the DEIS ended November 12, 2004. The Forest Service received 675 original responses and 44,984 organized campaign responses. A content analysis was completed in February 2005.

Responses to comments are detailed in chapter 5. All correspondence is retained in the project file.

1.7 Issues

NEPA regulations (40 CFR 1501.2(c)) require that federal agencies study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflict concerning alternative uses of available resources. The scoping process was used to identify conflicts associated with the proposed action and to identify issues to use as a basis for developing alternatives.

Comments that addressed the effects of the proposed action were sorted into several primary issues—these issues were used to develop alternatives to the proposed action that meet the purpose and need.

Some issues were not addressed in this FEIS. A list of issues not carried forward can be found in section 1.7.2. A detailed summary of comments received during scoping can be found in the project record.

1.7.1 Primary Issues

Issue 1 - Adequate Habitat Standards

Many respondents requested more restrictive habitat standards or an extension of habitat standards to lands outside the PCA, or both, to provide additional protection for the grizzly bear, including habitat connectivity within the GYA. Some respondents requested the elimination of temporary changes in secure habitat, no new developed sites, mandatory phase out of sheep grazing, and establishing road density standards. Some felt logging would degrade habitat for the bear. Others felt habitat standards should be extended to areas outside the PCA. Others requested fewer restrictions, including omitting the Plateau Bear Management Unit from habitat standards. Many respondents had concerns about 1998 as a baseline for resource management. Although the grizzly bear population achieved all demographic recovery goals by 1998 with this management regime in place, some respondents felt the baseline could be adjusted to allow either more management flexibility, or increase protections for the grizzly bear. Some respondents mentioned key roadless areas for maintaining secure habitat.

Issue Indicators

- Acres of long-term secure habitat within the PCA
- Acres of long-term secure habitat outside the PCA
- Acres of denning habitat closed to snow machine use
- Potential for conflicts at developed sites
- Areas with food storage requirements
- Potential for conflicts with sheep (number of allotments)
- Potential for conflicts with cattle (number of allotments)
- Potential area closures to provide adequate security for major foods
- Potential for major food source enhancement

- Potential for sustaining the recovered grizzly bear population

Issue 2 - Changes in the PCA Boundary

There were concerns about the size of the PCA boundary. Some felt the PCA is adequate because it has allowed the grizzly bear population to achieve all demographic recovery targets. Others felt the PCA is too small as habitats outside the PCA have been occupied by grizzly bears and contributed to the recovery of the grizzly bear. Others felt that the PCA should be smaller and the numbers of bears reduced.

Issue Indicators

- Acres of long-term secure habitat within the PCA
- Acres of long-term secure habitat outside the PCA

Issue 3 - Recreation Opportunities

Many respondents had concerns the habitat standards would result in reduced motorized recreation opportunities and in closing more roads. Some respondents were concerned about public safety while recreating in grizzly bear habitat. Although not part of the proposed action, concerns about food storage requirements were expressed and some respondents felt black bear baiting should be restricted in grizzly bear habitat. There were concerns about the effects to special use permitted resorts, ski areas, and lodges if developed sites were limited to 1998 levels. Additionally, some respondents felt information and education could play an important role in how to recreate in bear country.

Issue Indicators

- Effects to developed recreation—number of sites where capacity is held to 1998 or 2003 levels
- Effects to motorized summer recreation—miles of motorized access routes to be decommissioned
- Effects to developed and dispersed summer recreation use—closures where grizzly bear/human conflicts occur
- Effects to motorized winter recreation—acres closed to snow machine use

Issue 4 - Social and Economic Effects

Some respondents were concerned with the effects on income, employment, and lifestyle changes related to livestock operations, ranches, people associated with the timber industry, and recreation-related businesses. Some counties have passed resolutions banning the presence of grizzly bears and are concerned about the social and economic well being of their areas. Some expressed that reduced grazing could accelerate the breakup of ranches into subdivisions in the GYA if ranching is not economically viable.

Issue Indicators

- Community infrastructure/developed sites affected
- Government coordination—level of agreement about bear management
- Effects on ranching lifestyles—number of allotments affected
- Livestock-related employment and income
- Timber-related employment and income
- Acres of land area with restrictions and mitigation allowed or not allowed

Issue 5 - Vegetation, Fuels, and Access

Some respondents, including land managers, were concerned the standards would be too restrictive and would affect the ability to manage hazardous fuels; programs such as the Healthy Forests Initiative would be compromised and treatment of fuels in the wildland urban interface could be affected. Managers were concerned the proposed action would limit the administrative use of roads and motorized trails and the construction of roads and motorized trails—this potentially influences activities such as timber harvest, wildfire suppression, administrative management activities, and other uses associated with Forest Service roads and motorized trails.

Issues

Issue Indicators

- Potential change from existing level of timber management
- Potential change from existing level for whitebark pine enhancement
- Effects to access for fire suppression
- Reduction in flexibility for fire treatments
- Ability to treat fuels in the wildland urban interface
- Miles of motorized access routes to be restricted or decommissioned

Issue 6 - Minerals

Some respondents were concerned the habitat standards would limit oil and gas and mining and exploration programs because of limitations on developed sites and secure habitat. Others felt additional restrictions should be imposed on these programs.

Issue Indicators

- Potential change to oil and gas leasing decisions or proposed operations
- Effects on hardrock mineral development
- Effects on salable and mineral materials operations

Issue 7 - Food Source Stability

Some respondents said threats to food sources are not fully understood and must be further studied, suggesting that major foods for bears, such as army cutworm moths, spawning cutthroat trout, whitebark pine nuts, and wild ungulate carcasses may not be available in future years because of disease or other threats. Some said fire prevention is a prime factor in the decline of whitebark pine. Some respondents felt that due to the uncertainty of the loss of these major foods, a larger area should be managed for grizzly bears.

Issue Indicators

- Potential area closures to provide adequate security for major foods
- Potential for major food source enhancement
- Acres of long-term secure habitat outside the PCA
- Potential change from existing level for whitebark pine enhancement

Issue 8 - Connectivity and Linkage between the Six GYA National Forests

Some respondents felt the ability for bears to move between important habitats in the GYA should be addressed. They suggested the Forest Service should increase efforts to make the landscape in these linkage areas less lethal for bears through implementation of food storage requirements, elimination of domestic sheep, and habitat maintenance and restoration of degraded areas.

Issue Indicators

- Acres of long-term secure habitat within the PCA
- Acres of long-term secure habitat outside the PCA

Issue 9 - Commercial Livestock Grazing

Some respondents were concerned about how much impact the habitat standards would have on livestock grazing, and in particular, what the effects would be from phasing out sheep grazing. Grizzly bear/livestock conflicts were also a concern, as well as changes in livestock operations.

Issue Indicators

- Number of sheep allotments closed
- Number of cattle allotments estimated to be closed

1.7.2 Issues Not Addressed in this Analysis

The following issues and comments were received through public and internal scoping. The interdisciplinary team did not carry them forward in the analysis because they were either outside the scope of the proposed action, already decided by law, regulation, forest plan, or other higher

level decision, or may be a project level issue that will be addressed during future site-specific analyses as projects are proposed.

Connectivity and Linkage Zones outside the GYA National Forests

Issue: Many respondents felt the Forest Service should manage for increased habitat connectivity and linkage zones connecting the Yellowstone grizzly bear population with grizzly bear populations in other recovery zones.

Response: The scope of the proposed action addressed in this FEIS is limited to the six national forests within the GYA. It does not propose any changes to management direction on other national forests. Land management and grizzly bear habitat management direction for other national forests is outside the scope of this proposal. Issues and concerns associated with habitat connectivity between grizzly bear recovery zones may be addressed through appropriate interagency coordination efforts. The analysis in the FEIS addresses how the proposed action and alternatives potentially affect habitat connectivity within the six GYA national forests.

Concerns for maintaining the genetic diversity of the Yellowstone grizzly bear population in the absence of movement between ecosystems is addressed in the Conservation Strategy. Because the Yellowstone population is an isolated population, genetic declines over time are expected due to inbreeding effects. The Conservation Strategy recommends appropriate actions to maintain genetic diversity between the Yellowstone and the Northern Continental Divide Ecosystem (NCDE) grizzly populations, with monitoring and managing adaptively for genetic health.

An evaluation of the potential linkage between existing ecosystems is a key task in the Recovery Plan. In 2001, the USFWS issued a report titled Identification and Management of Linkage Zones for Wildlife between Large Blocks of Public Land in the Northern Rocky Mountains (USDI FWS 2001). This report was updated in 2003 (Servheen et al. 2003b) and documents a five-year process of evaluating potential linkages between the NCDE, Selkirk and Cabinet/Yaak, and Bitterroot recovery areas. Servheen et al. (2003b) define linkage zones as “the area between larger blocks of habitat where animals can live at certain seasons where they can find the security they need to successfully move between these larger blocks of habitat.” Linkage zones are not corridors, which imply an area used just for travel. Linkage zones are areas that can support low-density wildlife populations often as seasonal residents. The USFWS is currently working on a similar evaluation of habitat fracture and potential linkage between the Yellowstone recovery area and the NCDE and Bitterroot recovery zones.

The linkage opportunities for connecting grizzly bear ecosystems are in Montana and Idaho. The Yellowstone Grizzly Bear Management Plan (State of Idaho 2002) does not preclude allowing bears to occupy new habitats. The Grizzly Bear Management Plan for Southwestern Montana (State of Montana 2002) recognizes the importance of linkage zones and has a long-term goal for grizzly bears “to allow populations in western Montana to reconnect by occupying currently unoccupied habitats.”

The conclusion that this issue is outside of the scope of this proposed action does not imply that the Forest Service considers habitat connectivity and the need for maintaining linkage between recovery zones to be unimportant. Maintenance of linkage zones between ecosystems is a multifaceted issue, involves more species than just grizzly bears, and is well beyond the authorities of the Forest Service alone to address. The Forest Service, in concert with the IGBC, the USFWS, and various other governmental and non-governmental groups, continues to evaluate opportunities to improve habitat connectivity and linkage zones. The IGBC has agreed through an MOU to support linkage zone identification and the maintenance of existing linkage opportunities for wildlife. The IGBC has appointed three task forces (public lands, private lands, and highways) to evaluate linkage opportunities. The private land task force has completed a report (Parker and Parker 2002) that provides agency personnel with guidance for involving rural communities in the development of linkage zones. The Public Lands Task Force Report, completed in 2004 (IGBC Public Lands Wildlife Linkage Taskforce 2004) serves four functions:

Issues

- A tool to public land managers for use in developing and revising land and resource management plans
- Presents the results of wildlife linkage assessments in three specific high priority areas in northern Idaho and western Montana.
- Protocols developed in the report can be used as a template by agencies in other locations to assist in maintaining healthy wildlife populations where fragmentation due to human development is a threat
- Complements and provides supportive information for the IGBC private lands and highways linkage taskforces

Forest Service wildlife biologists are evaluating regional and finer scale opportunities for maintaining and improving habitat connectivity and linkage zones. The Forest Service created a national level position to coordinate efforts to maintain linkage associated with roads and highways. Region 1 of the Forest Service conducts an annual workshop entitled “People, Economics and Forest Carnivore Management” that stresses connectivity issues for carnivores. Invitees include Forest Service personnel and representatives from the Federal Highways Administration and the three state highway departments. Connectivity analyses and considerations for wildlife in road construction and reconstruction have become common practice within the Forest Service. The Conservation Strategy directs the agencies to ensure that habitat connectivity is addressed for new road construction or reconstruction in the GYA and to evaluate habitat connectivity during NEPA analysis.

Management of the Grizzly Bear Population

Issue: Many respondents were concerned about the size of the population (there are too few, or too many, grizzly bears); how populations would be managed, including the use of hunting as a management tool; banning of black bear baiting; and mortality limits.

Response: Management of grizzly bear populations, including size, mortality rates, and possible hunting of the bear are outlined in the Conservation Strategy, and are outside the scope of this analysis. The USFWS and three state wildlife management agencies manage the grizzly bear population. Additional direction for management of grizzly bear populations is included in the grizzly bear management plans for Idaho, Montana, and Wyoming (see section 1.1).

In regards to black bear baiting, wildlife management agencies have the authority and responsibility to regulate black bear baiting, although Alternative 4 would require Forest Service coordination with states in closing black bear baiting where grizzly bear conflicts occur. Currently black bear baiting is prohibited throughout the PCA. Black bear baiting is not allowed in the State of Montana. The State of Idaho allows black bear baiting outside the PCA in Idaho. The State of Wyoming allows black bear baiting outside the PCA in some areas; other areas are closed to baiting and in other areas, baits are restricted to non-processed foods to minimize grizzly bear conflicts. Grizzly bear hunting is identified as a future management tool in the Conservation Strategy; hunting would be under the authority and responsibility of the state wildlife management agencies, not the Forest Service.

Delisting the Grizzly Bear

Issue: Some respondents wanted to see the grizzly bear delisted immediately, while some do not want the grizzly bear delisted at all.

Response: The decision to delist the grizzly bear is the responsibility of the USFWS. The relationship between this proposal and delisting is discussed in sections 1.1 and 1.5.

Thresholds and Mechanisms to Compensate for Possible Food Declines, including Establishing Specific Levels of Habitat Effectiveness and Road Density Standards

Issue: Some respondents felt an approach is needed that recognizes differences in habitat productivity, including food sources, between BMUs throughout the ecosystem and that defines thresholds for habitat security by BMU so as to prompt corrective actions if such thresholds are violated. They also felt the approach should determine what level of habitat security and habitat

effectiveness is needed to ensure a positive growth rate in each of the BMUs, accounting for changing levels of key foods in the future.

Response: Differences in habitat productivity between BMUs were evaluated in the Conservation Strategy. The analysis demonstrated that secure habitat in each BMU subunit contained similar proportions of relative habitat value when compared to the subunit as a whole. Habitat effectiveness values for the 1998 baseline have been calculated for each bear management subunit using the CEM (Figure 128). The amount of secure habitat, habitat effectiveness values, or the abundance of certain key foods within specific BMUs and subunits and the relationship to birth and death rates of grizzly bears for specific BMUs and subunits is not known. Grizzly bears in the GYA are effectively one population. All research to date has focused on addressing the relationships among bears and environmental variables at the population level. Grizzly bear home ranges are large and often overlap several BMUs; therefore, it is not appropriate to manage populations at a BMU level and the mechanisms to manage populations at the BMU level are not available (sections 3.3.1 and 3.16).

Research efforts have provided insights into the relationships among bears and the components of habitat. Recognizing that grizzly bears are opportunistic omnivores and that a landscape's ability to support grizzly bears is a function of overall habitat productivity, the distribution and abundance of major food sources, the levels and type of human activities, grizzly bear social systems, bear densities, and stochasticity (random variation), there is no known way to deductively calculate minimum habitat values (USDI FWS 2005a). The 1998 level of secure habitat and corresponding vegetative conditions have provided the habitat necessary for the Yellowstone grizzly bear population to reach and exceed population recovery goals. Proposed habitat security thresholds for each BMU subunit do provide the necessary trigger to prompt corrective action if those thresholds are violated.

The uncertainty over future availability of the major foods and the effect on the grizzly bear population is discussed in chapter 3 and identified as an issue in this chapter. The potential loss of major foods is addressed in this FEIS through consideration of Alternative 4 and Alternative 2-Modified. Alternatives 2-Modified, 3, and 4 include monitoring requirements related to trends in the abundance of the major foods. Further, the Conservation Strategy commits other agencies, such as the NPS, to contribute to monitoring key foods.