

## **Chapter 2 Alternatives, Including the Proposed Action**

### **Introduction**

This chapter describes and compares the alternatives considered for the Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests. It includes a description of each alternative considered in detail. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for choice among options by the decision makers and the public. Some of the information used to compare the alternatives is based upon the design of the alternative and some of the information is based upon the environmental, social, and economic effects of implementing each alternative.

#### ***Chapter 2 Changes between Draft and Final EIS***

In this chapter, the following updates were made:

- Alternative 2-Modified, the preferred alternative, was added
- Clarification and corrections to the descriptions of the alternatives
- Additional discussion on alternatives eliminated from detailed study

### **2.1 Alternatives Considered in Detail**

The Forest Service developed five alternatives, including the no action and proposed action alternatives. Two alternatives were developed in response to issues raised by the public during scoping, and one other alternative (the preferred alternative) was developed in response to comments received on the DEIS.

To help the reader understand the terms used in the various alternatives, see Figure 4.

Some grizzly bear management direction would continue under all action alternatives, including direction contained in agreements, state management plans, and the Forest Service directives system. This includes direction on:

- Coordination with other Forest Service regions and other federal and state agencies
- Participation on the IGBC and associated subcommittees
- Grizzly bear mortality prevention
- Information and education programs to inform users of proper behavior in bear country
- Translocation of grizzly bears including the use of helicopters in wilderness
- Habitat analysis and planning
- Animal damage control efforts
- Designation of the grizzly bear as a sensitive species once the bear is removed from protection under the ESA

Additionally, minerals development under the 1872 General Mining Law would be allowed, but mitigated to avoid impacts to bears.

Figure 4. Criteria and definitions common to all action alternatives.

Criteria	Definition
Motorized access routes	Motorized access routes are all routes having motorized use or the potential for motorized use (restricted roads) including motorized trails, highways, and forest roads. Private roads and state and county highways are counted.
Restricted road	A restricted road is a road on which motorized vehicle use is restricted seasonally or yearlong. The road requires effective physical obstruction, generally gated (IGBC Taskforce Report 1998).
Permanently restricted road	A road restricted with a permanent barrier and not a gate. A permanently restricted road is acceptable within secure habitat.
Decommissioned or Obliterated or Reclaimed road	A decommissioned or obliterated or reclaimed road refers to a route which is managed with the long-term intent for no motorized use, and has been treated in such a manner to no longer function as a road. An effective means to accomplish this is through one or a combination of several means, including recontouring to original slope, placement of logging or forest debris, planting of shrubs or trees, etc. (IGBC Taskforce Report 1998).
Secure habitat	Secure habitat is more than 500 meters from an open or gated motorized access route or recurring helicopter flight line. Secure habitat must be greater than or equal to 10 acres in size <sup>8</sup> . Large lakes (greater than one square mile) are not included in the calculations.
Project	A project is an activity requiring construction of new roads, reconstructing or opening a permanently restricted road, or recurring helicopter flights at low elevations. Opening a gated road for public or administrative use is not considered a project as the area behind locked gated roads is not considered secure habitat.
Temporary project	To qualify as a temporary project under the Application Rules, project implementation will last no longer than three years.
Opening a permanently restricted road	Removing permanent barriers such that the road is accessible to motorized vehicles.
Permanent barrier	A permanent barrier refers to such actions as placement of earthen berms or ripping the road surface to create a permanent closure.
Removing motorized routes	To result in an increase in secure habitat, motorized routes must either be decommissioned or restricted with permanent barriers, not gates. Non-motorized use is permissible.
Seasonal periods	Season 1 – March 1 through July 15 Season 2 – July 16 through November 30 Project activities occurring between December 1 and February 28 do not count against secure habitat.
Developed site	A developed site includes but is not limited to sites on public land developed or improved for human use or resource development such as campgrounds, trailheads, improved parking areas, lodges (permitted resorts), administrative sites, service stations, summer homes (permitted recreation residences), restaurants, visitor centers, and permitted resource development sites such as oil and gas exploratory wells, production wells, plans of operation for mining activities, work camps, etc.
Vacant allotments	Vacant allotments are livestock grazing allotments without an active permit, but that may be restocked or used periodically by other permittees at the discretion of the land management agency to resolve resource issues or other concerns.
Recurring conflicts	Recurring grizzly bear/human or grizzly bear/livestock conflicts are defined as three or more years of recorded conflicts during the most recent five-year period.

<sup>8</sup> Secure habitat in this FEIS did not include areas open to cross country off-highway vehicle (OHV) travel.

### **2.1.1 Alternative 1**

Alternative 1 is the no action alternative. NEPA regulations require the Forest Service to identify the no action alternative and use it as a baseline for comparing the environmental consequences of the other alternatives (40 CFR 1502.14(d), and Forest Service Handbook 1909.15 Environmental Policy and Procedures).

Under Alternative 1, current forest plans would continue to guide management of grizzly bear habitat in the recovery zone. All forest plans have goals that provide suitable and adequate amounts of habitat for recovery of a viable grizzly bear population in the GYA as identified in the Recovery Plan. All forest plans have incorporated the Guidelines for areas inside the recovery zone. Some forests have added more specific forest plan direction that builds upon general statements in the Guidelines for the recovery zone. Individual forests have added forest plan direction on grizzly bear management since 1986.

Other direction includes special orders, biological opinions issued by the USFWS, cooperative agreements, and the Forest Service directives system. The goals and objectives of the forest plans, as amended, and other direction would remain unchanged under this alternative.

The grizzly bear would retain its protected threatened status under the ESA and all forests would continue to consult with the USFWS on all actions authorized, permitted, or carried out by the Forest Service.

#### ***Grizzly Bear Guidelines***

The Guidelines require management of grizzly bear habitat by Management Situation (MS) 1, 2, or 3 (appendix B). Specific management guidelines for each of five resource areas for each MS are identified. The five resource areas are wildlife; timber and fire; range; recreation; and minerals, watershed and special uses. The specific guidelines relate to maintaining or improving habitat, minimizing grizzly bear/human conflict potential, and resolving grizzly bear/human conflicts. Direction for habitat management, keeping attractants unavailable to bears, and resolving conflicts in the Guidelines is specific to the recovery zone. No direction is given for management of grizzly bears or their habitat outside the recovery zone. Outside the recovery zone, forests implement management direction in their existing forest plans and consult as necessary with the USFWS in areas occupied by grizzly bears. The Guidelines are considered dynamic and subject to change as research provides additional data. In addition, MS designations are subject to review and reclassification.

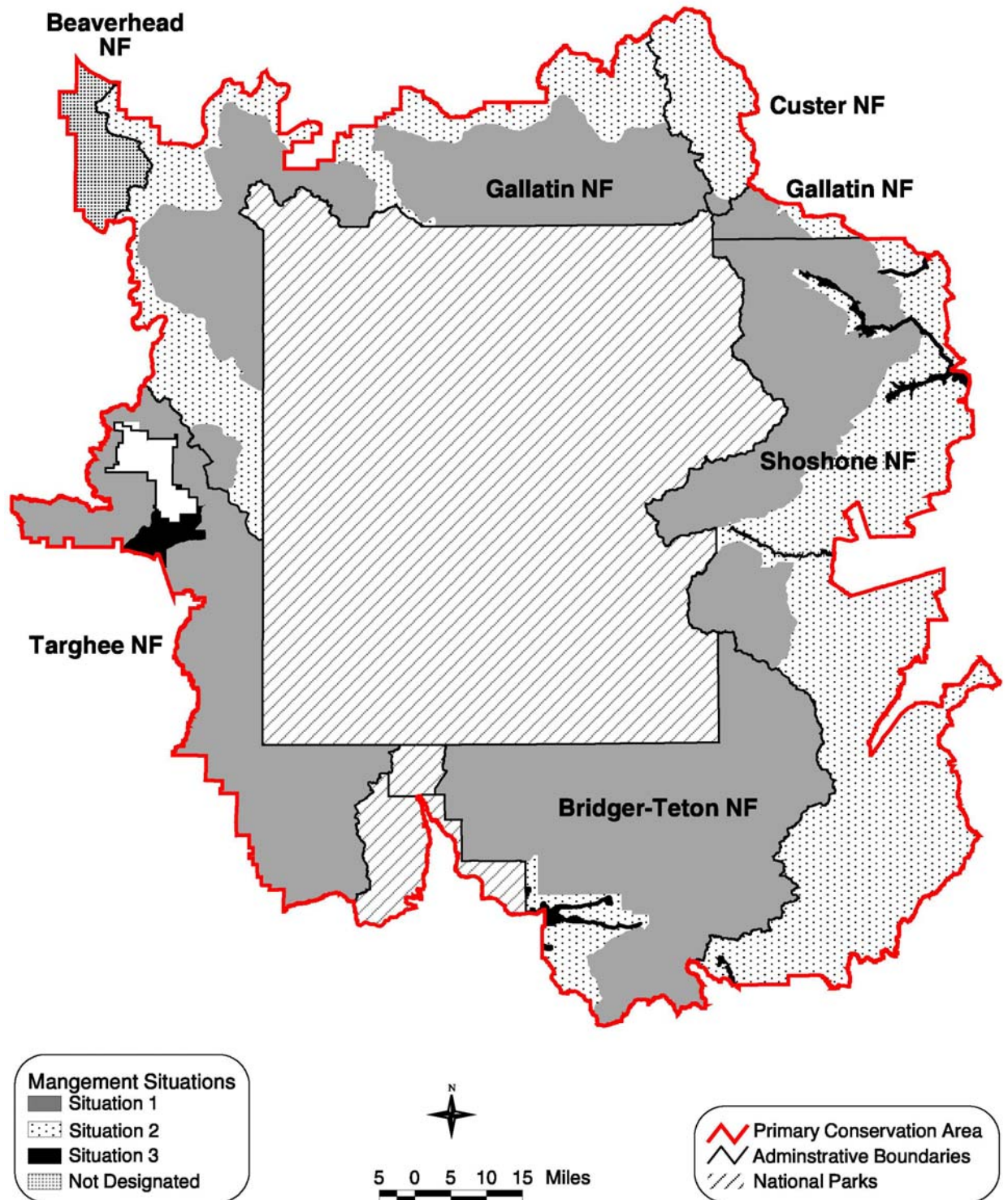
For the National Forest System lands in the grizzly bear recovery zone

- 59.3 percent are within MS 1
- 37.3 percent are within MS 2
- 1.4 percent are within MS 3
- 2 percent are not identified as a MS

The acres not identified as MS are all on the Beaverhead National Forest and are primarily designated wilderness (Figure 5).

The following is a brief description of each MS and a summary of the direction for maintaining and improving habitat and minimizing conflicts. Definitions and descriptions of the management situations and specific direction for resolving grizzly bear/human conflicts under the Guidelines can be found in appendices B and F.

Figure 5. Management Situations 1, 2, and 3 inside the recovery zone on the six GYA national forests.



**Management Situation 1.** The area contains grizzly population centers and habitat components needed for the survival and recovery of the species or a segment of its population. Grizzly habitat maintenance and improvement and grizzly bear/human conflict minimization receive the highest management priority.

The guidelines for MS 1 specify direction that will be implemented on timing and spacing of resource management activities, management of roads and trails to preclude conflicts, management of attractants, habitat improvement through vegetation manipulation, maintenance of mature whitebark pine, protection of important food production areas from livestock grazing, and management of wildlife and ungulate carcasses. Clauses are required in operating plans, permits, contracts, and special use permits to maintain or improve habitat for grizzlies, to cooperate in meeting agency goals and objectives for grizzly bears, and to resolve grizzly bear/human conflicts. Logging, fire activities, minerals activities, special uses, grazing, and recreation activities that will adversely affect grizzly populations and their habitat would not be permitted. Conflicts with bears and livestock are resolved in favor of the bear.

**Management Situation 2.** Current information indicates that the area lacks distinct population centers; highly suitable habitat does not generally occur, although some grizzly habitat components exist and grizzlies may be present occasionally. The grizzly bear is an important, but not the primary use of the area.

Specific guidelines for MS 2 are similar to those identified for MS 1 but in many cases the direction is to be implemented where feasible and/or only where grizzly presence is likely. Where grizzly presence is likely, the Guidelines require keeping attractants unavailable to bears and managing ungulate and wildlife carcasses. Generally, grizzly habitat improvement is not a consideration. Some exceptions are that silvicultural treatments will be designed to maintain or favor mature whitebark pine, and important food production areas will be protected from livestock grazing. Logging, fire activities, minerals activities, special uses, grazing, and recreation activities that will adversely affect grizzly populations will be avoided, if feasible. Conflicts with bears and livestock are resolved on a case-by-case basis.

**Management Situation 3.** Developments, such as campgrounds, resorts or other high human use associated facilities and human presence result in conditions that make grizzly bear presence untenable for humans and/or grizzlies. Grizzly habitat maintenance and improvement are not management considerations.

Guidelines are specific with direction that will be implemented on management of attractants and wildlife and ungulate carcasses where grizzly bear presence is likely. Clauses are required in operating plans, permits, contracts, and special use permits to cooperate in meeting agency grizzly management goals and objectives. Conflicts with livestock and bears are generally resolved by removing or relocating the bear.

***Individual Forest Plan Direction for Grizzly Bear Habitat Management***

*Beaverhead National Forest*

The Beaverhead Forest Plan, approved in 1986, includes a goal to provide habitat that contributes to the recovery of threatened and endangered species in accordance with approved recovery plans.

The Forest Plan states there is no occupied habitat on the Forest. The Forest Plan contains direction to document all grizzly bear use of the Forest and to evaluate habitat suitability in the Madison Range. Any habitat designated in the future as occupied will be managed according to the Recovery Plan. The Recovery Plan states that the Guidelines should be applied. Nuisance bears will also be managed according to the Guidelines. Amendment 10 closed the non-wilderness portion of the recovery zone to motorized access. Motorized access is restricted to designated routes.

The grizzly bear is a management indicator species and the Forest Plan requires annual monitoring of acres of habitat and number of animals.

The Draft Revised Land and Resource Management Plan for the Beaverhead-Deerlodge National Forest was issued in June 2005. In addition to incorporation of direction from this amendment, some specific direction is proposed for the grizzly bear, including managing for 60 percent or greater secure areas in the Gravelly Landscape.

*Bridger-Teton National Forest*

Forestwide grizzly bear recovery objectives identified in the 1990 Bridger-Teton National Forest Land and Resource Management Plan are:

- Provide suitable and adequate amounts of habitat for recovery of a viable grizzly bear population in the GYA as identified in the Recovery Plan
- Long-term Forest habitat management should provide vegetation diversity, approximate natural conditions, and include all successional stages important to the grizzly bear
- Prevent needless encounters between grizzly bears and people, and prevent grizzly bears from gaining access to attractants such as food and garbage

Management of grizzly bears and habitat inside the recovery zone is directed by “existing and future Interagency Grizzly Bear Management Guidelines.” Direction is also specified to follow the special order for sanitation, to make some changes in livestock distribution and numbers as necessary to avoid adverse effects to grizzly bears, and not to allow changes in class of livestock in MS 1 and MS 2. Several management areas inside the recovery zone emphasize enhancement of habitat and maintenance of recovered grizzly bear populations. Various standards and guidelines in these management areas require considerations for cover retention, size of openings, duration of activities, and size of the area impacted. Direction for several management areas inside the recovery zone states that no surface disturbing activities can occur until the grizzly bear CEM can be run to help determine potential effects on the bear. An oil and gas stipulation on part of the recovery zone states that if the grizzly bear is removed from protections under the ESA, a no surface occupancy stipulation will apply. Motorized access is restricted to designated routes with the exception of 60,000 acres in the Buffalo/Spread Creek BMU and 122,000 acres outside the PCA.

The grizzly bear is a management indicator species and monitoring requirements include compliance with the Guidelines by ground checking 75 percent of certain Forest activities to ensure compliance with food storage regulations and to use the CEM to ensure habitat capability for grizzly bears does not drop below recovery levels.

*Custer National Forest*

There is a Forestwide goal in the 1987 Custer National Forest and Grasslands Land and Resource Management Plan for the management of threatened and endangered species “to provide habitat that contributes to the recovery of the species.” Management inside the recovery zone is directed by the Guidelines and is incorporated into the Forest Plan by reference. Forestwide wildlife standards state that if threatened or endangered species are found during project level planning, the surface disturbing activity will be modified in such a way that the species will not be adversely affected, the surface disturbing activity will be disallowed, or consultation with the USFWS will be arranged. Additionally, all non-wilderness areas inside the recovery zone have oil and gas stipulations for no surface occupancy, or are available but not offered for lease. The Forest Plan requires monitoring of acres by habitat condition for grizzly bears. Motorized access is restricted to designated routes.

*Gallatin National Forest*

The 1987 Gallatin National Forest Plan has a goal to provide habitat for viable populations of threatened and endangered species, including the grizzly bear.

A modified version of the Guidelines provides direction for grizzly bear management inside the recovery zone and is included in the Forest Plan as appendix G. Direction is in the form of either standards or guidelines and the applicable MS. Additional direction for MS 1 and MS 2 areas on the duration of timber harvest activities, timing of re-entry, and maintenance of 5,000-acre

## *Alternatives Considered in Detail*

security areas adjacent to sale activities is incorporated through the Biological Opinion on the Forest Plan and is included in the Forest Plan as appendix H. Management area direction inside the recovery zone includes direction to 1) manage roads and trails and recreation activities to control public use in areas with a high potential for grizzly conflicts, 2) limit minerals activities to specific areas or periods to reduce mortality risk and reduction in habitat quality for grizzly bears, and 3) no new sheep allotments and sheep will not be restocked onto vacant allotments in MS 1 areas.

Amendment 19 established an objective to manage human access within the recovery zone in order to help meet the goal of grizzly bear recovery. Access standards were included in the Forest Plan that require, within BMU subunits, no increase in open motorized access route density and total motorized access route density, no decrease in core areas from 1995 levels, and to adopt “Yellowstone access standards” when they become available.

The Forest Plan includes requirements to monitor preventable grizzly bear mortalities and population trends of the grizzly bear as a management indicator species.

Motorized access is restricted to designated routes. In 2006, the Forest will complete a new travel management plan for public access and travel within the entire Forest and incorporate it into the Forest Plan.

### *Shoshone National Forest*

The 1986 Shoshone National Forest Land and Resource Management Plan includes a goal to “maintain or improve habitat for threatened and endangered species including participation in recovery efforts for listed species.”

An amendment to the Forest Plan in 1991 established the primacy of the Guidelines over all other Plan direction. This amendment incorporated the Guidelines, in total, by reference. In addition, the Forest Plan provides specific direction for minimizing impacts to grizzly bears from timber harvest activities. Standards provide direction on the timing and duration of timber harvest activities, restrict the number of entries per decade in a sale area for MS 1 areas, require periods of inactivity following sale activities before reentry in MS 2, prohibit entry in drainages with cover for grizzly bears below certain levels, and require 5,000-acre security areas adjacent to sale activities. Direction is also specified to apply a permit system in wilderness areas if necessary to prevent grizzly bear/human conflicts. A Forestwide standard in the 1996 Oil and Gas Leasing Record of Decision (USDA Forest Service 1995b) includes a no surface occupancy stipulation for oil and gas development to MS 1 lands outside wilderness, some MS 2 lands, and in moth aggregation areas. Security areas (5,000 acres) are required adjacent to oil and gas activity and no drilling is allowed within two miles of grizzly bear denning sites. A Forestwide standard in the Allowable Sale Quantity amendment (USDA Forest Service 1994a and b) specifies no net increase in roads and a Biological Opinion (USDI FWS 1996) from the USFWS requires no net gain in developed sites along the North Fork Shoshone River corridor. Motorized access is restricted to designated routes.

The grizzly bear is a management indicator species and served as the basis for formulation of habitat diversity standards in the Forest Plan. Monitoring is required for known human-caused grizzly bear mortalities, compliance with the 1986 Guidelines, and grizzly bear habitat effectiveness.

### *Targhee National Forest*

The Revised Targhee National Forest Plan was approved in 1997. Forestwide goals specific to the grizzly bear include direction to maintain habitat conditions sufficient to sustain a recovered population of grizzly bears, to integrate the Forest’s road and trail system with the needs of humans and grizzly bears, and to increase grizzly bear security.

Forestwide objectives for grizzly bear habitat are to

- Meet the recovery criteria in the Recovery Plan

- Implement the IGBC Guidelines
- Provide safe, secure sites for nuisance bears
- Achieve road density standards in the BMUs within three years of the implementation of the ROD [Record of Decision] in coordination with USFWS and state wildlife agencies
- Develop fire management plans for each of the BMUs to address wildfires and prescribed fire

In addition to direction requiring implementation of the Guidelines, the Forest has included Forestwide and specific management area direction for management areas inside the recovery zone. The Forest Plan incorporates many of the management concepts embedded in the Conservation Strategy, as the revised Plan was being developed in close coordination with the development of the Conservation Strategy.

The Forest Plan includes a Forestwide guideline identifying focus groups for grizzly bear education. All sheep allotments inside the recovery zone will be phased out on an opportunity basis. Prescriptions are designated for grizzly bear core and security areas where human activities are restricted or limited. Open and total motorized access route density standards are identified for each of the BMUs inside the recovery zone. Inside the recovery zone, operating plans, special use permits, and grazing permits require management of human attractants and livestock carcasses. Temporary cessation or modification of permitted activities will occur to resolve grizzly bear/human conflicts. Where grazing is allowed inside the recovery zone, high quality food production areas for grizzly bears will receive special grazing direction. In areas where timber harvest is allowed inside the recovery zone, it is required that 7,000-acre security areas are maintained adjacent to sale areas.

There are numerous other standards and guidelines relating to timing of projects, size of projects, location of roads, administrative use of roads, restricting roads to project activities, improving grizzly bear habitat, and minimizing grizzly bear/human conflicts depending on the management area. The recovery zone is not available for oil and gas leasing. All standards and guidelines specifically for grizzly bears are directed only within the recovery zone. Motorized access is restricted to designated routes with the exception of 11,000 acres in the Henrys Lake BMU (MS 3) and 32,000 acres outside the PCA.

The grizzly bear is a management indicator species and monitoring items specific for grizzly bears include grizzly bear population trend in cooperation with the IGBST, habitat changes through annual updates of relevant GIS databases, and improvement of grizzly bear habitat through use of the CEM. In addition, the Forest will monitor achievement of road density standards and road closure effectiveness.

**Summary of Direction for Alternative 1 for all GYA National Forests**

Direction for long-term maintenance of secure habitat would continue as per the management area direction for individual forest plans. Any changes in secure habitat and motorized access route density outside of management areas that preclude road construction would be determined through analysis directed by the Guidelines for each management situation and other specific forest plan direction. Reductions in secure habitat and increases in motorized access route density could occur.

Any proposed changes in the number and capacity of developed sites would primarily be evaluated as directed by the Guidelines according to the management situation. In most situations increases could occur, especially in MS 2 and MS 3 areas.

Increases in the number of allotments or number of sheep would be directed primarily by the Guidelines; increases could occur, particularly in MS 2 and MS 3.

Inside the recovery zone, all forests (except 2.4 percent of the Targhee National Forest and 8.3 percent of the Bridger-Teton National Forest) restrict motorized access to designated routes. Areas on the Targhee and Bridger-Teton National Forests that are not restricted to motorized travel routes will need to comply with the Travel Management Final Rule governing motor vehicle use on national forests (USDA Forest Service 2005e) within the next four years. The



Final Rule requires all national forests to identify and designate roads, trails, and areas that are open to motor vehicle use.

Over-the-snow use would be monitored and mitigated around known denning sites, according to the terms and conditions of the 2002 Biological Opinion on the Effects of Snowmobile Use on Grizzly Bears (USDI FWS 2002). The Targhee National Forest would restrict over-the-snow use to resolve specific conflicts with grizzly bears.

Most areas inside the recovery zone would be either not available for oil and gas leasing or the no surface occupancy stipulation would apply. Approximately 2.8 percent of National Forest System lands in the recovery zone are available for surface occupancy for oil and gas leasing. Outside the recovery zone, oil and gas leasing would vary by forest as specified in existing forest plans because the Guidelines do not apply to those areas. Hardrock minerals and salable minerals operations would be allowed and mitigated under current laws and regulations and forest plan standards.

Direction to keep human food and garbage and pet and processed livestock foods unavailable to bears is included in all forest plans as per the Guidelines.

BMUs and subunits have been used for over a decade to evaluate population and habitat information inside the recovery zone (Figure 6). Subunits provide the optimal scale for evaluation of seasonal feeding opportunities and landscape patterns of food availability for grizzly bears (Weaver et al. 1986). Existing forest plans, except the Gallatin Forest Plan and the 1997 Revised Targhee Forest Plan, do not contain specific direction for management of habitats by subunit. Habitat inside the PCA on all forests would continue to be evaluated and monitored by subunits in cooperation with the IGBST. Individual forests would monitor whitebark cone production in cooperation with the IGBST as part of monitoring grizzly bear food sources.

Bear baiting, under state direction, is not allowed inside the PCA. Outside the PCA, Montana is closed to bear baiting, Idaho is open for black bear baiting, and Wyoming allows bear baiting in most areas, unless conflicts occur with grizzlies (some areas are currently closed).

Monitoring for Alternative 1 varies by forest, as described above for each forest.

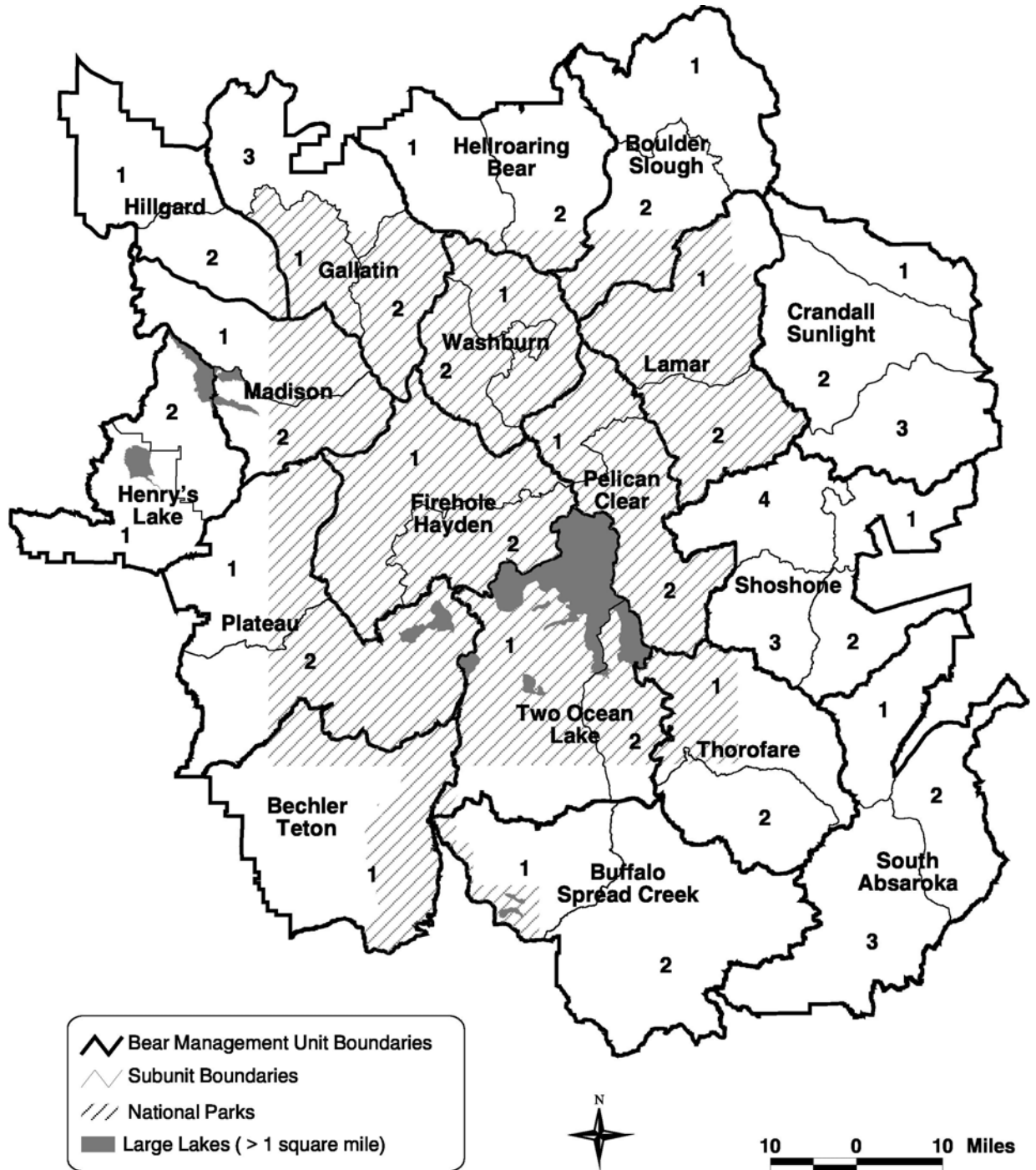
### **2.1.2 Alternative 2 (Proposed Action)**

The purpose of this alternative is to implement the appropriate habitat standards and monitoring protocols as documented in the Conservation Strategy. Alternative 2 was presented as the proposed action during the scoping period and the preferred alternative in the DEIS. Alternative 2-Modified is now the preferred alternative in the FEIS.

This alternative would provide programmatic direction in the form of habitat standards and guidelines for management of grizzly bear habitat security, developed sites, nuisance grizzly bear management, and livestock grazing within the PCA. All standards apply only to the PCA.

Standards are based on 1998 human activity levels. By 1998, all demographic recovery criteria were met, and the population was increasing between 3 percent and 7 percent annually (Eberhardt et al. 1994, Boyce 1995, Knight et al. 1995, Eberhardt and Knight 1996, Eberhardt and Cherry 2000, Boyce et al. 2001, Harris et al. 2005). See discussion in section 3.3.3 on the grizzly bear population in the GYA. The main assumption is that the levels of habitat security and other habitat conditions in 1998 provided the base environment that led to this ongoing growth of the bear population. Secure habitat and the number and capacity of developed sites changed little during the previous 10 years. The secure habitat and developed site standards apply to each of the BMU subunits on National Forest System lands inside the PCA (Figure 6).

Figure 6. Bear management units and subunits.



BMU and subunit information within the PCA—the 1998 baseline—is shown in appendix A. The nuisance bear standards from the Conservation Strategy are reproduced in appendix G.

**Goal—Grizzly Bear Habitat Conservation**

Grizzly bear habitat within the PCA would be managed to sustain the recovered Yellowstone grizzly bear population.

**Standard 1—Secure Habitat**

Inside the PCA, the percent of secure habitat within each BMU subunit would be maintained at or above levels that existed in 1998. Temporary and permanent changes would be allowed under specific conditions identified below.

*Application Rules for Changes in Secure Habitat*

**Permanent changes to secure habitat.** A project may permanently change secure habitat provided that replacement secure habitat of equivalent habitat quality (as measured by the CEM or equivalent technology) would be provided in the same BMU subunit. The replacement habitat must be maintained for a minimum of 10 years and would either be in place before project initiation or be provided concurrently with project development as an integral part of the project plan. A proactive increase in secure habitat may be banked to offset the impacts of future projects of that administrative unit within that subunit.

**Temporary changes to secure habitat.** Temporary reductions in secure habitat could occur to allow projects, if all of the following conditions are met:

- Only one project is active per grizzly subunit at any one time.
- The total acreage of active projects within a given BMU would not exceed 1 percent of the acreage in the largest subunit within that BMU. The acreage of a project that counts against the 1 percent limit is the acreage associated with the 500-meter buffer around any gated or open motorized access route or recurring low level helicopter flight line, where the buffer extends into secure habitat.
- Secure habitat would be restored within one year after completion of the project.

**Acceptable activities in secure habitat.** Activities that do not require road construction, reconstruction, opening a permanently restricted road, or recurring helicopter flight lines at low elevation do not detract from secure habitat. Examples of such activities include thinning, tree planting, prescribed fire, trail maintenance, and administrative studies/monitoring. Activities should be concentrated in time and space to the extent feasible to minimize disturbance. Land management agencies would be sensitive to these activities occurring adjacent to active projects and would analyze the effects in the NEPA process for the project.

- Helicopter use to respond to emergencies such as fire suppression or search and rescue activities does not detract from secure habitat under this definition. Likewise, helicopter use for short-term activities such as prescribed fire ignition/ management, periodic administrative flights, and other similar activities does not constitute a project under this definition.
- Motorized access routes with permanent barriers, decommissioned or obliterated roads, non-motorized trails, winter snow machine trails, and other motorized winter activities do not count against secure habitat.
- Project activities occurring between December 1 and February 28 do not count against secure habitat.
- To the fullest extent of its regulatory authority, the Forest Service would minimize effects on grizzly habitat from activities based in statutory rights, such as access to private lands under the Alaska National Interest Lands Conservation Act (ANILCA) and the 1872 General Mining Law. In those expected few cases where the mitigated effects would result in an exceedance of the 1998 baseline that cannot be compensated for within that subunit, compensation, in the PCA, to levels at or above the 1998 baseline would be accomplished in adjacent subunits when possible, or the closest subunit if this is not possible, or in areas outside the PCA adjacent to the subunit impacted.

- Existing oil and gas and other mineral leases would be honored, and proposed APDs (Application for Permit to Drill) and operating plans within those leases would strive to meet the Application Rules for changes in secure habitat. New leases, APDs, and operating plans would meet Standards 1 and 2.

**Standard 2—Developed Sites**

The number and capacity of developed sites within the PCA would be maintained at or below the 1998 level with the following exceptions: any proposed increase, expansion, or change of use of developed sites from the 1998 baseline in the PCA would be analyzed, and potential detrimental and positive impacts on grizzly bears documented through biological evaluation or assessment by the action agency.

*Application Rules for Developed Sites*

Mitigation of detrimental impacts would occur within the affected subunit and would be equivalent to the type and extent of impact. Mitigation measures would be in place before the initiation of the project or included as an integral part of the completion of the project.

- Consolidation and/or elimination of dispersed campsites would be considered adequate mitigation for increases in human capacity at developed campgrounds if the new site capacity were equivalent to the dispersed camping eliminated.
- New sites would require mitigation within that subunit to offset any increases in human capacity, habitat loss, and increased access to surrounding habitats.
- Administrative site expansions would be exempt from human capacity mitigation expansion if such developments were necessary for enhancement of management of public lands and other viable alternatives were not available. Temporary work camps for highway construction or other major maintenance projects would be exempt from human capacity mitigation if other viable alternatives were not available. Food storage facilities and management must be in place to ensure food storage compliance, i.e., regulations established and enforced, camp monitors, etc. All other factors resulting in potential detrimental impacts to grizzly bears would be mitigated as identified for other developed sites.
- To benefit the bear, land managers may improve the condition of existing developed sites by adjusting the capacity, season of use, and access to surrounding habitats. The improvements may then be used at a future date to mitigate equivalent impacts of proposed site development increase, expansion, or change of use for that administrative unit within that subunit.
- To the fullest extent of its regulatory authority, the Forest Service would minimize effects on grizzly habitat from activities based in statutory rights, such as the 1872 General Mining Law. In those expected few cases where the mitigated effects would result in an exceedance of the 1998 baseline that cannot be compensated for within that subunit, compensation, in the PCA, to levels at or below the 1998 baseline would be accomplished in adjacent subunits when possible, or the closest subunit if this is not possible, or in areas outside the PCA adjacent to the subunit impacted. Mitigation for Mining Law site impacts would follow standard developed site mitigation to offset any increases in human capacity, habitat loss, and increased access to surrounding habitats.
- Existing oil and gas and other mineral leases would be honored, and proposed APDs and operating plans within those leases would strive to meet the developed site standard. New leases, APDs, and operating plans would meet the developed site standard.
- Developments on private land are not counted against this standard.

**Standard 3—Livestock Grazing**

Inside the PCA, no new active commercial livestock grazing allotments would be created and there would be no increases in permitted sheep AMs from the identified 1998 baseline. Existing sheep allotments would be monitored, evaluated, and phased out as opportunities arise with willing permittees.

*Application Rules for Livestock Grazing*

Allotments include both vacant and active commercial grazing allotments. Reissuance of permits for vacant cattle allotments may result in an increase in the number of permitted cattle, but the number of allotments would remain the same as the 1998 baseline. Combining or dividing existing allotments would be allowed as long as acreage in allotments does not increase. Any such use of vacant cattle allotments resulting in an increase in permitted cattle numbers would be allowed only after an analysis to evaluate impacts on grizzly bears. Where recurring conflicts occur on cattle allotments inside the PCA, and as opportunities exist with willing permittees, one alternative for resolving the conflict may be to phase out cattle grazing or to move the cattle to a currently vacant allotment where there is less likelihood of conflict. Should such cattle grazing be phased out, the cattle allotment with the history of chronic conflicts may be closed to grazing without further NEPA analysis.

**Standard 4**

The Guidelines and Management Situations would no longer apply<sup>9</sup>.

**Standard 5—Nuisance Bears**

Forests would coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.

**Guideline 1—Winter Motorized Access**

Inside the PCA, localized area restrictions would be used to address conflicts with winter use activities, where conflicts occur during denning or after bear emergence in the spring.

**Monitoring**

Monitoring requirements in the proposed action include monitoring adherence to the standards, and monitoring changes in motorized access route density and habitat effectiveness inside the PCA. These requirements are described in section 2.1.6.

**2.1.3 Alternative 2-Modified (Preferred Alternative)**

Alternative 2-Modified was developed in response to comments received on the DEIS. A key public concern was the lack of direction and guidance outside the PCA for grizzly bear habitat management. Alternative 2-Modified is similar to Alternative 2 but adds additional direction and guidance for management of grizzly bears, including a goal for accommodating grizzly bears outside the PCA, direction on managing livestock allotments with recurring grizzly bear conflicts, allowing for the retirement of those allotments on a willing permittee basis (Guideline 2), direction for minimizing grizzly bear/human conflicts using food storage and other management tools (Standard 6 and Guideline 3), and guidance on maintaining key grizzly bear food sources (Guideline 4). Most of this additional direction and guidance applies both inside and outside the PCA in areas that are biologically suitable and socially acceptable as described in state plans.

Monitoring of changes in secure habitat outside the PCA was added to Monitoring Item 1, monitoring and evaluation for recurring conflicts with grizzly bears both inside and outside the PCA was added to Monitoring Item 3, and monitoring of whitebark pine was added (Monitoring Item 5). Standard 4, stating that guidelines and management situations would no longer apply, was dropped because that direction could be described in the Record of Decision.

BMU and subunit information within the PCA—the 1998 baseline—is shown in appendix A. The nuisance bear standards from the Conservation Strategy are reproduced in appendix G.

**Goal—Grizzly Bear Habitat Conservation**

Grizzly bear habitat within the PCA would be managed to sustain the recovered Yellowstone grizzly bear population. Outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, accommodate grizzly

---

<sup>9</sup> 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.

bear populations to the extent that accommodation is compatible with the goals and objectives of other uses.

**Standard 1—Secure Habitat**

Inside the PCA, the percent of secure habitat within each BMU subunit would be maintained at or above levels that existed in 1998. Projects that change secure habitat would follow the Application Rules.

*Application Rules for Changes in Secure Habitat*

**Permanent changes to secure habitat.** A project may permanently change secure habitat provided that replacement secure habitat of equivalent habitat quality (as measured by the CEM or equivalent technology) would be provided in the same BMU subunit. The replacement habitat must be maintained for a minimum of 10 years and would either be in place before project initiation or be provided concurrently with project development as an integral part of the project plan. A proactive increase in secure habitat may be banked to offset the impacts of future projects of that administrative unit within that subunit.

**Temporary changes to secure habitat.** Temporary reductions in secure habitat could occur to allow projects, if all of the following conditions are met:

- Only one project is active per grizzly subunit at any one time.
- The total acreage of active projects within a given BMU would not exceed 1 percent of the acreage in the largest subunit within that BMU. The acreage of a project that counts against the 1 percent limit is the acreage associated with the 500-meter buffer around any gated or open motorized access route or recurring low level helicopter flight line, where the buffer extends into secure habitat.
- To qualify as a temporary project, implementation would last no longer than three years.
- Secure habitat would be restored within one year after completion of the project.
- Project activities should be concentrated in time and space to the extent feasible to minimize disturbance.

**Acceptable activities in secure habitat.** Activities that do not require road construction, reconstruction, opening a permanently restricted road, or recurring helicopter flight lines at low elevation do not detract from secure habitat. Examples of such activities include thinning, tree planting, prescribed fire, trail maintenance, and administrative studies/monitoring. Activities should be concentrated in time and space to the extent feasible to minimize disturbance. Land management agencies would be sensitive to these activities occurring adjacent to active projects and would analyze the effects in the NEPA process for the project.

- Helicopter use to respond to emergencies such as fire suppression or search and rescue activities does not detract from secure habitat under this definition. Likewise, helicopter use for short-term activities such as prescribed fire ignition/ management, periodic administrative flights, and other similar activities does not constitute a project under this definition.
- Motorized access routes with permanent barriers, decommissioned or obliterated roads, non-motorized trails, winter snow machine trails, and other motorized winter activities do not count against secure habitat.
- Project activities occurring between December 1 and February 28 do not count against secure habitat.
- To the fullest extent of its regulatory authority, the Forest Service would minimize effects on grizzly habitat from activities based in statutory rights, such as access to private lands under the ANILCA and the 1872 General Mining Law. In those expected few cases where the mitigated effects would result in an exceedance of the 1998 baseline that cannot be compensated for within that subunit, compensation, in the PCA, to levels at or above the 1998 baseline would be accomplished in adjacent subunits when possible, or the closest subunit if this is not possible, or in areas outside the PCA adjacent to the subunit impacted.

## *Alternatives Considered in Detail*

- Existing oil and gas and other mineral leases would be honored, and proposed APDs and operating plans within those leases would strive to meet the Application Rules for changes in secure habitat. New leases, APDs, and operating plans would meet Standards 1 and 2.

### **Standard 2—Developed Sites**

The number and capacity of developed sites within the PCA would be maintained at or below the 1998 level with the following exceptions: any proposed increase, expansion, or change of use of developed sites from the 1998 baseline in the PCA would be analyzed, and potential detrimental and positive impacts on grizzly bears documented through biological evaluation or assessment by the action agency. Projects that change the number or capacity of developed sites would follow the Application Rules.

#### *Application Rules for Developed Sites*

Mitigation of detrimental impacts would occur within the affected subunit and would be equivalent to the type and extent of impact. Mitigation measures would be in place before the initiation of the project or included as an integral part of the completion of the project.

- Consolidation and/or elimination of dispersed campsites would be considered adequate mitigation for increases in human capacity at developed campgrounds if the new site capacity were equivalent to the dispersed camping eliminated.
- New sites would require mitigation within that subunit to offset any increases in human capacity, habitat loss, and increased access to surrounding habitats.
- Administrative site expansions would be exempt from human capacity mitigation expansion if such developments were necessary for enhancement of management of public lands and other viable alternatives were not available. Temporary work camps for highway construction or other major maintenance projects would be exempt from human capacity mitigation if other viable alternatives were not available. Food storage facilities and management must be in place to ensure food storage compliance, i.e., regulations established and enforced, camp monitors, etc. All other factors resulting in potential detrimental impacts to grizzly bears would be mitigated as identified for other developed sites.
- To benefit the bear, land managers may improve the condition of existing developed sites by adjusting the capacity, season of use, and access to surrounding habitats. The improvements may then be used at a future date to mitigate equivalent impacts of proposed site development increase, expansion, or change of use for that administrative unit within that subunit.
- To the fullest extent of its regulatory authority, the Forest Service would minimize effects on grizzly habitat from activities based in statutory rights, such as the 1872 General Mining Law. In those expected few cases where the mitigated effects would result in an exceedance of the 1998 baseline that cannot be compensated for within that subunit, compensation, in the PCA, to levels at or below the 1998 baseline would be accomplished in adjacent subunits when possible, or the closest subunit if this is not possible, or in areas outside the PCA adjacent to the subunit impacted. Mitigation for Mining Law site impacts would follow standard developed site mitigation to offset any increases in human capacity, habitat loss, and increased access to surrounding habitats.
- Existing oil and gas and other mineral leases would be honored, and proposed APDs and operating plans within those leases would strive to meet the developed site standard. New leases, APDs, and operating plans would meet the developed site standard.
- Developments on private land are not counted against this standard.

### **Standard 3—Livestock Grazing**

Inside the PCA, no new active commercial livestock grazing allotments would be created and there would be no increases in permitted sheep AMs from the identified 1998 baseline. Existing sheep allotments would be monitored, evaluated, and phased out as opportunities arise with willing permittees.

*Application Rules for Livestock Grazing*

Allotments include both vacant and active commercial grazing allotments. Reissuance of permits for vacant cattle allotments may result in an increase in the number of permitted cattle, but the number of allotments would remain the same as the 1998 baseline. Combining or dividing existing allotments would be allowed as long as acreage in allotments does not increase. Any such use of vacant cattle allotments resulting in an increase in permitted cattle numbers would be allowed only after an analysis to evaluate impacts on grizzly bears.

**Guideline 2—Livestock Grazing**

Inside the PCA, cattle allotments or portions of cattle allotments with recurring conflicts that cannot be resolved through modification of grazing practices may be retired as opportunities arise with willing permittees. Outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, livestock allotments or portions of allotments with recurring conflicts that cannot be resolved through modification of grazing practices may be retired as opportunities arise with willing permittees.

*Application Rules for Livestock Grazing Guideline*

Permittees with allotments with recurring conflicts would be given the opportunity for placing livestock in a vacant allotment outside the PCA where there is less likelihood for conflicts with grizzly bears as these allotments become available.

**Standard 5—Nuisance Bears**

Forests would coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.

**Standard 6—Food Storage and Other Management Tools**

Inside the PCA, grizzly bear/human conflicts would be minimized using food storage orders, information and education, and other management tools.

**Guideline 3—Food Storage and Other Management Tools**

Outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, proper sanitation techniques would be emphasized, including food storage orders, and information and education, while working with local governments and other agencies.

**Guideline 1—Motorized Access**

Inside the PCA, localized area restrictions would be used to address conflicts with winter use activities, where conflicts occur during denning or after bear emergence in the spring.

**Guideline 4—Food Sources**

Inside the PCA and outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, maintain the productivity, to the extent feasible, of the four key grizzly bear food sources as identified in the Conservation Strategy. Emphasize maintaining and restoring whitebark pine stands inside and outside the PCA.

**Monitoring**

Monitoring requirements in Alternative 2-Modified include monitoring adherence to the standards and monitoring changes in motorized access route density and habitat effectiveness inside the PCA. Outside the PCA, monitoring would obtain information on trends on secure habitat; the status of whitebark pine and monitoring of recurring conflicts would occur on allotments both inside and outside the PCA. These requirements are described in section 2.1.7.

## **2.1.4 Alternative 3**

This alternative was developed in response to comments suggesting the Forest Service provide more restrictive habitat protection for the grizzly bear inside the PCA. The purpose is to address the potential future loss of major bear foods and further reduce the potential for grizzly bear/human conflicts and bear mortality inside the PCA. This alternative maintains the current



size of the area where management direction would favor grizzly bears with more restrictive standards. The major differences between this alternative and Alternatives 1, 2, and 2-Modified are that:

- Inside the PCA, no permanent or temporary reduction in secure habitat would be allowed and secure habitat would be increased
- Inside the PCA, proposed increases in developed sites or capacity of developed sites could not be mitigated and would not be allowed
- Sheep grazing in the PCA would be eliminated within three years rather than phased out

Alternative 3 would require additional restrictions to resolve grizzly bear/human conflicts and protect important food sources, restrict off-road travel (except over-the-snow use) to designated routes, eliminate over-the-snow use in grizzly bear denning areas, and not allow new oil and gas leases.

Standards are based on 1998 human activity levels. The secure habitat and developed site standards apply to each of the BMU subunits on National Forest System lands inside the PCA (Figure 6).

BMU and subunit information within the PCA—the 1998 baseline—is shown in appendix A. The nuisance bear standards from the Conservation Strategy are reproduced in appendix G.

***Goal—Grizzly Bear Habitat Conservation***

Grizzly bear habitat within the PCA would be managed to sustain the recovered Yellowstone grizzly bear population.

***Standard 1—Secure Habitat***

Inside the PCA, the percent of secure habitat within each BMU subunit would be maintained at or above levels that existed in 1998. No permanent or temporary changes would be allowed. Where secure habitat is below 70 percent, it would be increased to 70 percent within five years, where feasible. Areas to be restored would be prioritized based on quality of bear habitat. Inventoried roadless areas would be maintained in a roadless condition, and existing motorized routes in inventoried roadless areas would be removed within five years.

***Application Rules for Secure Habitat***

***Statutory or contractual rights.*** To the fullest extent of its regulatory authority, the Forest Service would minimize effects on grizzly habitat from activities based in statutory rights, such as access to private lands under the ANILCA and the 1872 General Mining Law. In those expected few cases where the mitigated effects would result in a decrease in secure habitat below the 1998 baseline that cannot be compensated for within that subunit, compensation, in the PCA, to levels at or above the 1998 baseline would be accomplished in adjacent subunits when possible, or the closest subunit if this is not possible, or in areas outside the PCA adjacent to the subunit impacted.

Existing oil and gas leases would be honored, and proposed APDs and operating plans within those leases would strive to meet Standards 1 and 2.

***Acceptable activities in secure habitat.*** Activities that do not require road construction, reconstruction, opening a permanently restricted road, or recurring helicopter flight lines at low elevation do not detract from secure habitat. Examples of such activities include thinning, tree planting, prescribed fire, trail maintenance, and administrative studies/monitoring. Activities should be concentrated in time and space to the extent feasible to minimize disturbance. Land management agencies would also be sensitive to these activities occurring adjacent to active projects and would analyze the effects in the NEPA process for the project.

- Helicopter use to respond to emergencies such as fire suppression or search and rescue activities does not detract from secure habitat under this definition. Likewise, helicopter use for short-term activities such as prescribed fire ignition/ management, periodic administrative flights, and other similar activities does not constitute a project under this definition.

- Motorized access routes with permanent barriers, decommissioned or obliterated roads, non-motorized trails, winter snow machine trails, and other motorized winter activities do not count against secure habitat.
- Project activities occurring between December 1 and February 28 do not count against secure habitat.

**Standard 2—Developed Sites**

The number and capacity of developed sites within the PCA would be maintained at or below the 1998 level, except for statutory or contractual rights.

*Application Rules for Developed Sites*

- To the fullest extent of its regulatory authority, the Forest Service would minimize effects on grizzly habitat from activities based in statutory rights, such as the 1872 General Mining Law. In those expected few cases where the mitigated effects would result in an exceedance of the 1998 baseline that cannot be compensated for within that subunit, compensation, in the PCA, to levels at or below the 1998 baseline would be accomplished in adjacent subunits when possible, or the closest subunit if this is not possible, or in areas outside the PCA adjacent to the subunit impacted. Mining Law site impacts would require mitigation to offset any increases in human capacity, habitat loss, and increased access to surrounding habitats.
- Existing oil and gas and other mineral leases would be honored, and proposed APDs and operating plans within those leases would strive to meet Standards 1 and 2.
- Developments on private land are not counted against this standard.

**Standard 3—Livestock Grazing**

Inside the PCA, no new active commercial livestock grazing allotments would be created and permitted sheep grazing would be closed within three years, starting with those allotments with recurring conflicts with grizzly bears. Those portions of cattle allotments with recurring conflicts with grizzly bears would be closed.

*Application Rules for Livestock Grazing*

Allotments include both vacant and active commercial grazing allotments. Reissuance of permits for vacant cattle allotments may result in an increase in the number of permitted cattle, but the number of allotments would remain the same as the 1998 baseline. Combining or dividing existing allotments would be allowed as long as acreage in allotments does not increase. Any such use of vacant cattle allotments resulting in an increase in permitted cattle numbers would be allowed only after an analysis by the action agency to evaluate impacts on grizzly bears.

**Standard 4**

The Guidelines and Management Situations would no longer apply<sup>10</sup>.

**Standard 5—Nuisance Bears**

Forests would coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.

**Standard 7—Off-road Motorized Access**

Inside the PCA, motorized access (except over-the-snow use) would be restricted to designated routes. In denning areas, over-the-snow use would be eliminated during the denning period (November 1 through April 30).

**Standard 8—Oil and Gas and Other Mineral Leasing**

Inside the PCA, no new oil and gas or other mineral leases would be allowed. Existing leases would be honored. Locatable minerals would be allowed and mitigated under current laws and regulations and forest plan standards. (See the Application Rules for Standards 1 and 2.)

---

<sup>10</sup> 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.

**Standard 9—Recreation Conflicts**

Inside the PCA, developed sites or dispersed camping, including outfitter camps, with recurring grizzly bear/human conflicts would be eliminated. Human use of backcountry trails would be reduced or eliminated seasonally or yearlong in areas with recurring grizzly bear/human conflicts.

**Standard 10—Food Sources**

Inside the PCA, where needed, critical food sources including whitebark pine seed production, army cutworm moth aggregation sites, major fish spawning areas, elk parturition areas, and big game winter ranges would be maintained. Seasonal area closures would be used to provide adequate security to ensure important food areas are available to bears.

**Monitoring**

Monitoring requirements in Alternative 3 would include monitoring adherence to the standards, and monitoring changes in motorized access route density and habitat effectiveness inside the PCA. These requirements are described in section 2.1.6.

**2.1.5 Alternative 4**

This alternative was developed in response to comments suggesting the Forest Service extend grizzly bear habitat protection beyond the PCA. The purpose is to address the potential future loss of major bear foods, increase the probability of habitat connectivity with other ecosystems, improve linkage and connectivity between key habitats within the six GYA national forests, and further reduce the potential for grizzly bear/human conflicts and bear mortality throughout the GYA. This alternative increases the size of the area where management direction would favor grizzly bears with the more restrictive standards described for Alternative 3. For Alternative 4, the boundary outside the PCA and the standards and guidelines were developed using information obtained from scoping (Figure 7). Existing evaluations of suitable habitat and linkage areas for grizzly bears within the six GYA forests were used as the basis for delineation of this boundary (Walker and Craighead 1997, Willcox and Ellenberger 2000, Merrill and Mattson 2003). The boundary was again reviewed after receiving comments on the DEIS to expand the Alternative 4 boundary, for example, to the Wyoming Range, portions of the Wind River Range, and the Salt River Range. These areas were reconsidered in the finalization of Alternative 4 and were again determined to be unlikely to be effectively occupied by grizzly bears due to high levels of agricultural use. Similarly, the Wyoming Game and Fish Department has determined that these areas are socially unacceptable (State of Wyoming 2005).

Standards are based on 1998 human activity levels inside the PCA and 2003 levels in areas outside the PCA. The secure habitat and developed site standards apply to each of the BMU subunits and analysis areas on National Forest System lands inside this area.

Analysis units created for this assessment outside the PCA were similar in size to BMU subunits inside the PCA. Fourth and fifth level watershed boundaries were used as the primary delineators because grizzly bear habitat use information was incomplete to assist in the development of these analysis units.

BMU and subunit information within the PCA—the 1998 baseline—and outside the PCA—the 2003 baseline—are shown in appendix A. The nuisance bear standards from the Conservation Strategy are reproduced in appendix G.

**Goal—Grizzly Bear Habitat Conservation**

Grizzly bear habitat within the PCA and additional areas outside the PCA would be managed to sustain the recovered Yellowstone grizzly bear population.

**Standard 1—Secure Habitat**

Inside the PCA the percent of secure habitat within each BMU subunit would be maintained at or above levels that existed in 1998, outside the PCA at or above 2003 levels. No permanent or temporary changes would be allowed. Where secure habitat is below 70 percent, it would be increased to 70 percent within five years, where feasible. Areas to be restored would be

prioritized based on quality of bear habitat. Inventoried roadless areas would be maintained in a roadless condition, and existing motorized routes in inventoried roadless areas would be removed within five years. Projects would be limited to no more than three years in duration and associated activities would occur at a time when the habitat is of little or no importance to grizzly bears.

*Application Rules for Secure Habitat*

**Statutory or contractual rights.** To the fullest extent of its regulatory authority, the Forest Service would minimize effects on grizzly habitat from activities based in statutory rights, such as access to private lands under the ANILCA and the 1872 General Mining Law. In those expected few cases where the mitigated effects would result in a decrease in secure habitat below the appropriate baseline that cannot be compensated for within that subunit or analysis unit, compensation, to levels at or above the appropriate baseline would be accomplished in adjacent subunits or analysis units when possible, or the closest subunit if this is not possible, or in areas outside the Alternative 4 boundary as close as possible to the impacted subunit or analysis unit. Existing oil and gas and other mineral leases would be honored, and proposed APDs and operating plans within those leases would strive to meet Standards 1 and 2.

**Acceptable activities in secure habitat.** Activities that do not require road construction, reconstruction, opening a permanently restricted road, or recurring helicopter flight lines at low elevation do not detract from secure habitat. Examples of such activities include thinning, tree planting, prescribed fire, trail maintenance, and administrative studies/monitoring. Activities should be concentrated in time and space to the extent feasible to minimize disturbance. Land management agencies would be sensitive to these activities occurring adjacent to active projects and would analyze the effects in the NEPA process for the project.

- Helicopter use to respond to emergencies such as fire suppression or search and rescue activities does not detract from secure habitat under this definition. Likewise, helicopter use for short-term activities such as prescribed fire ignition/ management, periodic administrative flights, and other similar activities does not constitute a project under this definition.
- Motorized access routes with permanent barriers, decommissioned or obliterated roads, non-motorized trails, winter snow machine trails, and other motorized winter activities do not count against secure habitat.
- Project activities occurring between December 1 and February 28 do not count against secure habitat.

**Standard 2—Developed Sites**

The number and capacity of developed sites within the PCA would be maintained at or below the 1998 level, and at or below the 2003 level outside the PCA, except for statutory or contractual rights.

*Application Rules for Developed Sites*

To the fullest extent of its regulatory authority, the Forest Service would minimize effects on grizzly habitat from activities based in statutory rights, such as the 1872 General Mining Law. In those expected few cases where the mitigated effects would result in an exceedance of the appropriate baseline that cannot be compensated for within that subunit or analysis unit, compensation, to levels at or below the appropriate baseline would be accomplished in adjacent subunits or analysis units when possible, or the closest subunit if this is not possible, or in areas outside the Alternative 4 boundary as close as possible to the impacted subunit or analysis unit. Mining Law site impacts would require mitigation to offset any increases in human capacity, habitat loss, and increased access to surrounding habitats.

Existing oil and gas and other mineral leases would be honored, and proposed APDs and operating plans within those leases would strive to meet Standards 1 and 2.

Developments on private land would not be counted against this standard.

**Standard 3—Livestock Grazing**

No new active commercial livestock grazing allotments would be created and permitted sheep grazing would be closed within three years, starting with those allotments with recurring conflicts with grizzly bears. Those portions of cattle allotments that have a trend of recurring conflicts with grizzly bears would be closed.

*Application Rules for Livestock Grazing*

Allotments include both vacant and active commercial grazing allotments. Reissuance of permits for vacant cattle allotments may result in an increase in the number of permitted cattle, but the number of allotments would remain the same as the identified baseline. Combining or dividing existing allotments would be allowed as long as acreage in allotments does not increase. Any such use of vacant cattle allotments resulting in an increase in permitted cattle numbers would be allowed only after an analysis by the action agency to evaluate impacts on grizzly bears.

**Standard 4**

The Guidelines and Management Situations would no longer apply<sup>11</sup>.

**Standard 5—Nuisance Bears**

Forests would coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.

**Standard 7—Off-road Motorized Access**

Motorized access (except over-the-snow use) would be restricted to designated routes. In denning areas, over-the-snow use would be eliminated during the denning period (November 1 through April 30).

**Standard 8—Oil and Gas and Other Mineral Leasing**

No new oil and gas or other mineral leases would be allowed. Existing leases would be honored. Locatable minerals would be allowed and mitigated under current laws and regulations and forest plan standards. (See the Application Rules for Standards 1 and 2.)

**Standard 9— Recreation Conflicts**

Developed sites or dispersed camping, including outfitter camps, with recurring grizzly bear/human conflicts would be eliminated. Human use of backcountry trails would be reduced or eliminated seasonally or yearlong in areas with recurring grizzly bear/human conflicts.

**Standard 10—Food Sources**

Where needed, critical food sources including whitebark pine seed production, army cutworm moth aggregation sites, major fish spawning areas, elk parturition areas, and big game winter ranges would be maintained. Seasonal area closures would be used to provide adequate security to ensure areas are available to bears.

**Guideline 1—Black Bear Baiting**

Forests would coordinate as necessary with states in closing black bear baiting where grizzly bear conflicts occur because of black bear baiting.

**Objective 1— Food Storage**

A uniform forestwide food storage order, where not currently in place, would be implemented within one year.

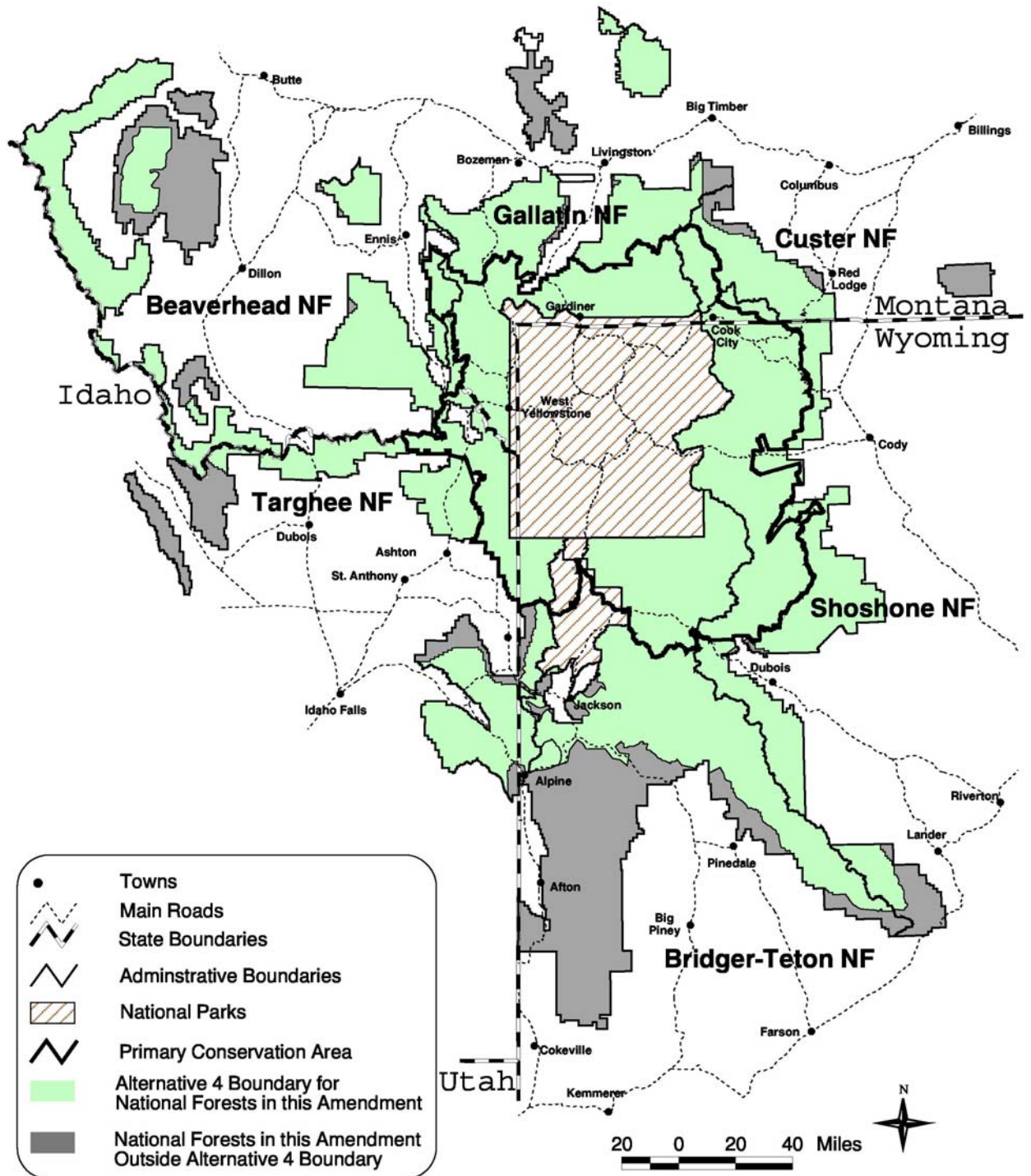
**Monitoring**

Monitoring requirements in Alternative 4 include monitoring adherence to the standards, and monitoring changes in motorized access route density and habitat effectiveness inside the PCA and to areas outside the PCA included in Alternative 4. These requirements are described in section 2.1.6. Additionally, compliance with food storage orders would be monitored.

---

<sup>11</sup> 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.

Figure 7. The boundary of Alternative 4.



### **2.1.6 Habitat Monitoring Common to All Action Alternatives**

Habitat monitoring would focus on evaluation of implementation of the habitat standards identified in the Conservation Strategy. Monitoring of other important habitat parameters would provide additional information to fully evaluate the status of the habitat for supporting the recovered grizzly bear population and the effectiveness of habitat standards.

Habitat monitoring is key to an adaptive management approach. All monitoring information would be submitted to the IGBST annually and included as part of their Annual Report as required by the Conservation Strategy. Concerns created from either population or habitat monitoring could result in a Biology and Monitoring Review completed by IGBST. The YGCC would meet twice a year and evaluate the need for changes in management direction. The Conservation Strategy would be updated by the management agencies every five years or as necessary allowing public comment in the updating process. Similarly, the land management plans for the GYA national forests would be updated as needed. A complete description on evaluation, reporting, and monitoring is included in chapter 6 of the Conservation Strategy.

Additional monitoring for whitebark pine cone production and winter-killed ungulate carcasses would be implemented as described in the Conservation Strategy. The Forest Service would not have the lead on these monitoring activities, but would work in cooperation with other land management agencies. Habitat connectivity would be evaluated in association with road construction and reconstruction activities on National Forest System lands as described in the Conservation Strategy.

Habitat standards and other habitat parameters would be monitored as follows for Alternatives 2, 2-Modified, 3, and 4 inside the PCA and compared to 1998 activity levels. Protocols for monitoring are described in the Conservation Strategy. Additional monitoring for Alternative 4 and Alternative 2-Modified is presented in the following sections.

#### ***Secure Habitat and Motorized Access Route Density Monitoring Protocol***

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 in each subunit on the national forest would be monitored, compared to the 1998 baseline and annually submitted for inclusion in the IGBST Annual Report.

#### ***Developed Sites Monitoring Protocol***

Changes in the number and capacity of developed sites on the national forest would be monitored, compared with the 1998 baseline, and annually submitted for inclusion in the IGBST Annual Report and

#### ***Livestock Grazing Monitoring Protocol***

The number of commercial livestock grazing allotments on the national forest and the number of permitted domestic sheep animal months would be monitored, compared to the 1998 baseline, and annually submitted for inclusion in the IGBST Annual Report.

#### ***Habitat Effectiveness Monitoring Protocol***

*Alternatives 2, 3, and 4:* Changes in seasonal habitat effectiveness in each BMU subunit would be monitored by regular application of the grizzly bear CEM or the best available system, compared to the 1998 baseline, and included in the IGBST Annual Report, as applicable. CEM databases would be annually reviewed and updated as needed. When funding is available, representative non-motorized trails or access points would be monitored where risk of grizzly bear mortality is highest.

*Alternative 2-Modified:* Changes in seasonal habitat effectiveness in each BMU subunit would be monitored every five years by application of the grizzly bear CEM or the best available system, compared to the 1998 baseline, and included in the IGBST Annual Report, as applicable. CEM databases would be annually reviewed and updated as needed. When funding is available,

representative non-motorized trails or access points would be monitored where risk of grizzly bear mortality is highest.

### **2.1.7 Additional Habitat Monitoring for Alternative 2-Modified**

Because of public input on the DEIS, some additional monitoring was added to Alternative 2-Modified as described below. The additional monitoring provides for obtaining information on trends on secure habitat outside the PCA, status of whitebark pine, and monitoring of recurring conflicts on allotments inside and outside the PCA.

#### ***Additional Monitoring for Secure Habitat***

Outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, changes in secure habitat would be monitored and submitted for inclusion in the IGBST Annual Report by national forest every two years.

#### ***Additional Monitoring for Livestock Grazing***

Inside and outside the PCA, allotments would be monitored and evaluated for recurring conflicts with grizzly bears.

#### ***Additional Monitoring for Whitebark Pine***

Whitebark pine occurrence, productivity, and health inside and outside the PCA would be monitored in cooperation with other agencies. Results of whitebark pine cone production from transects or other appropriate methods, and results of other whitebark pine monitoring, would be annually submitted for inclusion in the IGBST Annual Report.

### **2.1.8 Additional Habitat Monitoring for Alternative 4**

Habitat monitoring would focus on evaluation of implementation of the habitat standards identified in the Conservation Strategy but would be extended to the Alternative 4 area outside the PCA. Monitoring information would be compared to 2003 activity levels.

All monitoring information from outside the PCA would be submitted to the IGBST on an annual basis and included as part of the Annual Report.

Habitat standards and other habitat parameters would be monitored as follows.

#### ***Secure Habitat and Motorized Access Route Density Monitoring Protocol***

Secure habitat, OMARD greater than one mile/square mile, and TMARD greater than two miles/square mile would be monitored utilizing the CEM Geographic Information System (GIS) databases, compared to the 2003 baseline, and reported annually within each subunit in the IGBST Annual Report.

#### ***Developed Sites Monitoring Protocol***

Changes in the number and capacity of developed sites on public lands would be compiled annually, compared to the 2003 baseline, and included in the IGBST Annual Report.

#### ***Livestock Grazing Monitoring Protocol***

To ensure no increase from the 2003 baseline, numbers of commercial livestock grazing allotments and numbers of sheep AMs would be monitored and reported to the IGBST annually by the permitting agencies.

#### ***Habitat Effectiveness Monitoring Protocol***

Changes in seasonal habitat effectiveness in each BMU subunit would be monitored by regular application of the grizzly bear CEM or the best available system, compared to the 2003 baseline, and included in the IGBST Annual Report, as applicable. CEM databases would be annually reviewed and updated as needed. When funding is available, representative non-motorized trails or access points would be monitored where risk of grizzly bear mortality is highest.



## **2.2 Alternatives Considered but Eliminated from Detailed Study**

Federal agencies are required by the NEPA to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the proposed action provided suggestions for alternative methods for achieving the purpose and need. Some of these alternatives may have been outside the scope or similar to the alternatives considered in detail. Therefore, a number of alternatives were considered, but dismissed from detailed consideration for reasons summarized in this section.

### **2.2.1 Alternative 5**

This alternative proposes implementation of the appropriate habitat standards and monitoring protocols as documented in the Conservation Strategy (similar to Alternative 2), plus less restrictive habitat direction for areas outside the PCA. These areas were described in the state management plans. The interdisciplinary team initiated detailed study of this alternative until determining it was similar to Alternative 4. Alternative 5 would extend habitat standards outside the PCA to nearly the same area as Alternative 4. Standards would be less restrictive than Alternative 4. A complete analysis was unnecessary because the effects would have been within the range of effects for Alternatives 2 and 4.

### **2.2.2 Alternative 6**

This alternative was developed in response to public comments both in scoping and on the DEIS suggesting the Forest Service reduce the area of habitat protection and the amount of restrictions for the grizzly bear and allow more natural resource development to better support local economies. In particular, the Plateau BMU would be removed from the PCA. Some of the reduction in restrictions included less restrictive application rules for the secure habitat standard, such as allowing more than one active project per subunit at a time, and emphasizing the use of silviculture in improving grizzly bear habitat. This alternative was not given further detailed study in this analysis as it did not meet the purpose and need for action, which is to ensure conservation of habitat to support continued recovery of the grizzly bear population in GYA national forests. The standards and application rules in the Conservation Strategy were identified as minimums to sustain a recovered grizzly bear population upon delisting. The application rules do permit a temporary 1 percent change in secure habitat within a BMU subunit, which would allow silvicultural activities and related road construction to occur that could benefit the grizzly bear.

During the planning process to revise the Targhee Forest Plan, public comments were received suggesting that the Plateau BMU should be removed as a bear management unit. This suggestion was made based on the perception that the Plateau BMU was poor quality habitat and had low grizzly bear use.

During 1993 and 1994, a technical committee appointed by the YES conducted a study to evaluate habitat capability and grizzly bear use in the Plateau BMU (Puchlerz 1994). Results and recommendations from that study are summarized below.

Methods used in the study included calculating habitat value and habitat effectiveness values for the Plateau BMU using the Unified Cumulative Effects Model and other modeling software. The habitat value is a measure of the amount and quality of vegetative and non-vegetative habitat currently in the unit, and habitat effectiveness is the habitat value after discounting for current human activity. Results indicated that subunits within the Plateau BMU were of adequate size to support an adult female grizzly bear with young. Each subunit was larger than the average annual home ranges of females with young.

Grizzly bear use of habitat within the Plateau BMU was examined through an analysis of historic records, including mortality data, and through a special effort to capture and instrument individual grizzly bears during 1993 and 1994. Results of the historic information from records of

grizzly bear mortalities between 1959 and 1993 documented six mortalities in the Plateau BMU.<sup>12</sup> Other historic information and numerous references immediately adjacent to this area would lead one to believe that grizzly bears were common inhabitants of these areas. The results of the capture and instrument study showed one grizzly bear within that BMU in 1994, plus the occurrence of other sightings and tracks in 1993 and 1994.

The technical committee recommended that the Targhee National Forest improve habitat effectiveness levels by implementing access management measures approved by the IGBC in July 1994. With improved habitat effectiveness, occupancy should be expected. Continued monitoring for evidence of reproducing females was recommended. These recommendations implied that the BMU should be kept in the recovery zone. In addition, this recommendation was brought before the YES in 1995, where it was approved that the Plateau BMU remains in the recovery zone.

### **2.2.3 Other Alternatives**

Many public comments included variations on providing additional habitat protection for the grizzly bear through extension of habitat standards beyond the PCA. Some of the reasons were to address the potential future loss of major bear foods and increase the probability of habitat connectivity with other ecosystems. Some comments called for extending habitat standards either to occupied grizzly bear habitat or to inventoried roadless areas (and keep roadless areas roadless), or to all National Forest System lands in the GYA. Some commenters asked that the Merrill and Mattson (2003) map be used to identify areas likely to be occupied. These alternatives were combined and are represented by Alternative 4.

Another suggestion was termination or removal of existing oil and gas leases as one variation on Alternative 4, and to consider the use of alternative energy sources to obviate the need for oil and gas leasing and development in the GYA.

The variation will not be considered in detail because the Forest Service and BLM have limited authorities to implement this alternative. The agencies could recommend existing lease rights be purchased by the government, or recommend existing lease rights be condemned. Implementing both of the above recommendations would involve legislation to prevent existing lease rights from being exercised and possibly money appropriated, or congressional action to exchange lease rights for rights of equal value elsewhere. Additionally, the Forest Service has not completed court-ordered NEPA and ESA compliance on the suspended leases on the Gallatin National Forest; therefore, our administrative duties have not been completed. The leases cannot be developed until the court-ordered work is completed. Removal of current oil and gas leases is premature.

Under a buy-back scenario, the final value of mineral rights granted under existing oil and gas leases would be negotiated and could ultimately be determined by the courts. Currently, there are approximately eight issued, but suspended, oil and gas leases on the Gallatin National Forest inside the PCA. There are approximately 50 leases on the forests in the Alternative 4 area outside the PCA; only eight of the leases are active (Figure 90 and Figure 93) and the rest are suspended pending an oil and gas leasing decision on the Gallatin National Forest. Special appropriation from Congress would be required to authorize the buy back of existing leases.

Condemnation proceedings could be initiated by the government to permanently enjoin leaseholders from exercising their lease rights. Condemnation requires conclusive evidence that lease activities are environmentally unacceptable. Regardless, lessees would still be compensated for their losses as described above.

---

<sup>12</sup> The DEIS quoted the 1994 report which stated that nine grizzly bears had been killed in the Plateau BMU on the Targhee National Forest. The 1997 Revised Forest Plan stated that six grizzly bears had been killed in the same BMU. The documented mortality records were rechecked and the correct number is six.

*Alternatives Considered but Eliminated from Detailed Study*

The Forest Service and BLM could propose legislation, or recommend that Congress enact legislation, to prevent lease development. Legislation could be worded such that compensation would be granted for those rights lost due to condemnation. Evaluating an exchange of equal value for existing leases was also considered. Under this concept, lease rights of a value equal to those lease rights within Alternative 4 would be offered to existing lessees.

In regard to encouraging the use of alternative energy sources, the National Energy Policy (Cheney et al. 2001) encourages reliable, affordable, and environmentally sound energy for the future. Use of alternative energy sources by American citizens, although supported by the Forest Service, would be outside the scope of Forest Service decision making.

### 2.3 Summary of the Specific Features of the Alternatives Considered in Detail

This section provides a *summary* of the features of each alternative. Complete descriptions of the alternatives are in section 2.1.

*Figure 8. Components of Alternatives 1, 2, and 2-Modified.*

Alternative 1	Alternative 2	Alternative 2-Modified
No action (existing forest plans) The Guidelines apply inside the PCA.	Proposed action Direction applies inside the PCA.	Preferred alternative
Goal All forest plans have direction to provide suitable and adequate amounts of habitat for recovery of a viable grizzly bear population in the GYA as identified in the Recovery Plan.	Goal Manage grizzly bear habitat within the PCA to sustain the recovered Yellowstone grizzly bear population.	Goal Manage grizzly bear habitat within the PCA to sustain the recovered Yellowstone grizzly bear population. Outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, accommodate grizzly bear populations to the extent that accommodation is compatible with the goals and objectives of other uses.
Secure habitat Long-term secure habitat maintained by existing forest plan direction. Consultation with USFWS required for all access decisions.	Standard 1—Secure habitat Inside the PCA, maintain the percent of secure habitat in BMU subunits at or above 1998 levels. Projects that change secure habitat must follow the Application Rules.	Standard 1—Secure habitat Inside the PCA, maintain the percent of secure habitat in BMU subunits at or above 1998 levels. Projects that change secure habitat must follow the Application Rules.
Developed sites Consultation with USFWS using the Guidelines required for all developed site decisions.	Standard 2—Developed sites Inside the PCA, 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 in the PCA is analyzed and potential detrimental and positive impacts on grizzly bears are documented through biological evaluation or assessment. Projects that change the number and capacity of developed sites must follow the Application Rules.	Standard 2—Developed sites Inside the PCA, 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 in the PCA is analyzed and potential detrimental and positive impacts on grizzly bears are documented through biological evaluation or assessment. Projects that change the number and capacity of developed sites must follow the Application Rules.

Summary of the Specific Features of the Alternatives Considered in Detail

Alternative 1	Alternative 2	Alternative 2-Modified
No action (existing forest plans) The Guidelines apply inside the PCA.	Proposed action Direction applies inside the PCA.	Preferred alternative
Livestock grazing Grizzly bear/livestock conflicts in MS 1 favor the grizzly bear.	Standard 3—Livestock grazing Inside the PCA, do not create new active commercial livestock grazing allotments, do not increase permitted sheep AMs from the identified 1998 baseline, and phase out existing sheep allotments as opportunities arise with willing permittees.	Standard 3—Livestock grazing Inside the PCA, do not create new active commercial livestock grazing allotments, do not increase permitted sheep AMs from the identified 1998 baseline, and phase out existing sheep allotments as opportunities arise with willing permittees.
		Guideline 2—Livestock Grazing Inside the PCA, cattle allotments or portions of cattle allotments with recurring conflicts that cannot be resolved through modification of grazing practices may be retired as opportunities arise with willing permittees. Outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, livestock allotments or portions of allotments with recurring conflicts that cannot be resolved through modification of grazing practices may be retired as opportunities arise with willing permittees.
The Guidelines and management situations apply.	Standard 4 The Guidelines and management situations no longer apply.	The Guidelines and management situations no longer apply; this is not included as a standard under Alternative 2-Modified.
Nuisance bears Nuisance bear management is guided by the Guidelines.	Standard 5—Nuisance bears Coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.	Standard 5—Nuisance bears Coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.
Motorized access Inside the PCA, all forest plans restrict motorized access to designated routes, with some exceptions. Over-the-snow use is monitored and would be mitigated around known denning sites.	Guideline 1—Winter motorized access Inside the PCA, localized area restrictions would be used to address conflicts with winter use activities where conflicts occur during denning or after bear emergence in the spring.	Guideline 1—Winter motorized Access Inside the PCA, localized area restrictions would be used to address conflicts with winter use activities where conflicts occur during denning or after bear emergence in the spring.

Summary of the Specific Features of the Alternatives Considered in Detail

Alternative 1	Alternative 2	Alternative 2-Modified
No action (existing forest plans) The Guidelines apply inside the PCA.	Proposed action Direction applies inside the PCA.	Preferred alternative
Oil and gas leasing Most areas inside the PCA are either not available or no surface occupancy for oil and gas leasing. Outside the PCA, oil and gas leasing varies by forest.	Oil and gas leasing Same as Alternative 1. New leases, APDs, and operating plans would meet Standards 1 and 2.	Oil and gas leasing Same as Alternative 1. New leases, APDs, and operating plans would meet Standards 1 and 2.
Recreation conflicts The Guidelines provide direction for grizzly bear/human conflicts at developed and dispersed sites.	Recreation conflicts See Standard 5.	Recreation conflicts See Standards 5 and 6 and Guideline 3.
Food sources The Guidelines provide direction for grizzly bear habitat improvement, including whitebark pine.		Guideline 4—Food sources Inside the PCA and outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, maintain the productivity, to the extent feasible, of the four key grizzly bear food sources as identified in the Conservation Strategy. Emphasize maintaining and restoring whitebark pine stands inside and outside the PCA.
Bear baiting Bear baiting is not allowed inside the PCA, per state regulations. Outside the PCA, state management varies.	Bear baiting Same as Alternative 1.	Bear baiting Same as Alternative 1.
Food storage Food storage orders would remain in place in all areas inside the PCA and in some areas outside the PCA.	Food storage Same as Alternative 1.	Standard 6—Food storage Inside the PCA, minimize grizzly bear/human conflicts using food storage, information and education, and other management tools.

Summary of the Specific Features of the Alternatives Considered in Detail

Alternative 1	Alternative 2	Alternative 2-Modified
No action (existing forest plans) The Guidelines apply inside the PCA.	Proposed action Direction applies inside the PCA.	Preferred alternative
		Guideline 3—Food storage Outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, emphasize proper sanitation techniques, including food storage orders, and information and education, while working with local governments and other agencies.
Monitoring Monitoring under forest plan direction would continue.	Monitoring Item 1 Inside the PCA, annually monitor changes in secure habitat and motorized access routes and compare with the 1998 baseline.	Monitoring Item 1 Inside the PCA, annually monitor changes in secure habitat and motorized access routes and compare with the 1998 baseline. Outside the PCA in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, monitor changes in secure habitat every two years.
	Monitoring Item 2 Inside the PCA, annually monitor number and capacity of developed sites and compare with the 1998 baseline.	Monitoring Item 2 Inside the PCA, annually monitor number and capacity of developed sites and compare with the 1998 baseline.
	Monitoring Item 3 Inside the PCA, annually monitor the number of commercial livestock grazing allotments and the number of permitted domestic sheep AMs and compare with the 1998 baseline.	Monitoring Item 3 Inside the PCA, annually monitor the number of commercial livestock grazing allotments and the number of permitted domestic sheep AMs and compare with the 1998 baseline. Inside and outside the PCA, monitor and evaluate allotments for recurring conflicts with grizzly bears.

Summary of the Specific Features of the Alternatives Considered in Detail

Alternative 1	Alternative 2	Alternative 2-Modified
No action (existing forest plans) The Guidelines apply inside the PCA.	Proposed action Direction applies inside the PCA.	Preferred alternative
	Monitoring Item 4 Inside the PCA, regularly measure changes in seasonal habitat effectiveness and compare with the 1998 baseline.	Monitoring Item 4 Inside the PCA, every five years measure changes in seasonal habitat effectiveness and compare with the 1998 baseline.
		Monitoring Item 5 Monitor whitebark pine occurrence, productivity, and health inside and outside the PCA in cooperation with other agencies.



Summary of the Specific Features of the Alternatives Considered in Detail

Figure 9. Components of Alternatives 1, 3, and 4.

Alternative 1	Alternative 3	Alternative 4
No action (existing forest plans) The Guidelines apply inside the PCA.	Direction applies inside the PCA.	Direction applies inside the PCA and to additional areas outside the PCA.
Goal All forest plans have direction to provide suitable and adequate amounts of habitat for recovery of a viable grizzly bear population in the GYA as identified in the Recovery Plan.	Goal Manage grizzly bear habitat within the PCA to sustain the recovered Yellowstone grizzly bear population.	Goal Manage grizzly bear habitat within the area defined for Alternative 4 to sustain the recovered Yellowstone grizzly bear population.
Secure habitat Long-term secure habitat maintained by existing forest plan direction. Consultation with USFWS required for all access decisions.	Standard 1—Secure habitat Maintain secure habitat in BMU subunits at or above 1998 levels. Where secure habitat is below 70 percent, increase to 70 percent where feasible. Maintain inventoried roadless areas in a roadless condition, and remove any existing motorized routes in inventoried roadless areas.	Standard 1—Secure habitat Maintain secure habitat in BMU subunits at or above 1998 levels inside the PCA and at or above 2003 levels outside the PCA. Where secure habitat is below 70 percent, increase to 70 percent where feasible. Maintain inventoried roadless areas in a roadless condition, and remove any existing motorized routes in inventoried roadless areas.
Developed sites Consultation with USFWS using the Guidelines required for all developed site decisions.	Standard 2—Developed sites Maintain the number and capacity of developed sites at or below 1998 levels.	Standard 2—Developed sites Maintain the number and capacity of developed sites at or below 1998 levels inside the PCA and at or below 2003 levels outside the PCA.
Livestock grazing Grizzly bear/livestock conflicts in MS 1 favor the grizzly bear.	Standard 3—Livestock grazing Do not create new active commercial livestock grazing allotments and close all sheep allotments within three years, starting with those allotments with recurring conflicts with grizzly bears. Close those portions of cattle allotments that have a trend of recurring conflicts with grizzly bears.	Standard 3—Livestock grazing Do not create new active commercial livestock grazing allotments and close all sheep allotments within three years, starting with those allotments with recurring conflicts with grizzly bears. Close those portions of cattle allotments that have a trend of recurring conflicts with grizzly bears.
The Guidelines and management situations apply.	Standard 4 The Guidelines and management situations no longer apply.	Standard 4 The Guidelines and management situations no longer apply.

Summary of the Specific Features of the Alternatives Considered in Detail

Alternative 1	Alternative 3	Alternative 4
No action (existing forest plans) The Guidelines apply inside the PCA.	Direction applies inside the PCA.	Direction applies inside the PCA and to additional areas outside the PCA.
Nuisance bears Nuisance bear management is guided by the Guidelines.	Standard 5—Nuisance bears Coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.	Standard 5—Nuisance bears Coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.
Motorized access Inside the PCA, all forest plans restrict motorized access to designated routes. Over-the-snow use is monitored and would be mitigated around known denning sites.	Standard 7—Motorized access Restrict motorized access (except over-the-snow use) to designated routes. In denning areas, eliminate over-the-snow use during the denning period.	Standard 7—Motorized access Restrict motorized access (except over-the-snow use) to designated routes. In denning areas, eliminate over-the-snow use during the denning period.
Oil and gas leasing Most areas inside the PCA are either not available or no surface occupancy for oil and gas leasing. Outside the PCA, oil and gas leasing varies by forest.	Standard 8—Oil and gas leasing No new oil and gas leases.	Standard 8—Oil and gas leasing No new oil and gas leases.
Recreation conflicts The Guidelines provide direction for grizzly bear/human conflicts at developed and dispersed sites.	Standard 9—Recreation conflicts Eliminate developed sites or dispersed camping, including outfitter camps, with recurring grizzly bear/human conflicts. Limit human use of backcountry trails in high bear-use areas.	Standard 9—Recreation conflicts Eliminate developed sites or dispersed camping, including outfitter camps, with recurring grizzly bear/human conflicts. Limit human use of backcountry trails in high bear-use areas.
Food sources The Guidelines provide direction for grizzly bear habitat improvement, including whitebark pine.	Standard 10—Food sources Where needed, maintain and restore critical food sources. Use area closures to provide adequate security to ensure areas are available to bears.	Standard 10—Food sources Where needed, maintain and restore critical food sources. Use area closures to provide adequate security to ensure areas are available to bears.
Bear baiting Bear baiting is not allowed inside the PCA, per state regulations. Outside the PCA, state management varies.	Bear baiting Same as Alternative 1.	Bear baiting Inside the PCA, same as Alternative 1. Outside the PCA, Guideline 1. As necessary, coordinate with states in closing black bear baiting where grizzly bear conflicts occur.

Summary of the Specific Features of the Alternatives Considered in Detail

Alternative 1	Alternative 3	Alternative 4
No action (existing forest plans) The Guidelines apply inside the PCA.	Direction applies inside the PCA.	Direction applies inside the PCA and to additional areas outside the PCA.
Food storage Food storage orders would remain in place in all areas inside the PCA and in some areas outside the PCA.	Food storage Same as Alternative 1.	Objective 1 - Food storage Within one year, implement a uniform food storage order forestwide, where not currently in place.
Monitoring Monitoring under forest plan direction would continue.	Monitoring Item 1 Annually monitor changes in secure habitat and motorized access routes and compare with the 1998 baseline.	Monitoring Item 1 Annually monitor changes in secure habitat and motorized access routes and compare with the 1998 inside the PCA and the 2003 baseline outside the PCA.
	Monitoring Item 2 Inside the PCA, annually monitor number and capacity of developed sites and compare with the 1998 baseline.	Monitoring Item 2 Annually monitor number and capacity of developed sites and compare with the 1998 baseline inside the PCA and the 2003 baseline outside the PCA.
	Monitoring Item 3 Annually monitor the number of commercial livestock grazing allotments and the number of permitted domestic sheep AMs and compare with the 1998 baseline.	Monitoring Item 3 Annually monitor the number of commercial livestock grazing allotments and the number of permitted domestic sheep AMs and compare with the 1998 baseline inside the PCA and the 2003 baseline outside the PCA.
	Monitoring Item 4 Inside the PCA, regularly measure changes in seasonal habitat effectiveness and compare with the 1998 baseline.	Monitoring Item 4 Regularly measure changes in seasonal habitat effectiveness and compare with the 1998 baseline inside the PCA and the 2003 baseline outside the PCA.

### 2.3.1 Summary of the Comparison of the Effects of the Alternatives

This comparison of effects is a *summary* of the conclusions presented in chapter 3. Effects common to all alternatives are not included in this table. See chapter 3 for a full discussion of the anticipated environmental effects of the alternatives.

*Figure 10. Comparison of the effects of the alternatives.*

	Alternative 1	Alternative 2	Alternative 2-Modified	Alternative 3	Alternative 4
<b>Grizzly Bears</b>					
Acres of long-term secure habitat within the PCA	2.5 million	2.8 million	2.8 million	3.0 million	3.0 million
Acres of long-term secure habitat outside the PCA	3.1 million	3.1 million	3.1 million	3.1 million	5.1 million
Acres of denning habitat closed to snow machine use	3.9 million	3.9 million	3.9 million	4.7 million	6.3 million
Potential for conflicts at developed sites inside the PCA	Low	Low	Low	Very low	Very low
Potential for conflicts at developed sites outside the PCA	Moderate	Moderate	Low	Moderate	Very low
Potential for conflicts with sheep inside the PCA	Low	Low	Low	Very low	Very low
Potential for conflicts with sheep outside the PCA	Moderate - high	High	Moderate	High	Very low
Potential for conflicts with cattle inside the PCA	Moderate	Moderate - high	Moderate	Low	Low
Potential for conflicts with cattle outside the PCA	Moderate - high	High	Moderate	High	Very low
Potential for temporary area closures to provide adequate security for major foods	Low	Low	Low - moderate	Moderate - high	High

Summary of the Specific Features of the Alternatives Considered in Detail

	Alternative 1	Alternative 2	Alternative 2-Modified	Alternative 3	Alternative 4
Potential for major food source enhancement inside the PCA	Low -moderate	Low	Moderate	High	High
Potential for major food source enhancement outside the PCA	Low	Low	Moderate	Low	High
Potential for sustaining the recovered grizzly bear population	High	High	High - very high	High	Very high
<b>Vegetation</b>					
Potential change from existing level of timber management	None	Potential limit to size and number of individual projects	Potential limit to size and number of individual projects	10% decrease	33% decrease
Potential change from existing level for whitebark pine enhancement	None	Some reduction; no specific direction	Increased emphasis inside and outside PCA	Most emphasis in PCA, no specific direction outside	Most emphasis inside and outside PCA
<b>Fire and Fuels</b>					
Effects to access for fire suppression	No change from existing	Low	Low	Moderate	High
Reduction in flexibility for fire treatments	No change from existing	Low	Low	Moderate	High
Ability to treat fuels in the wildland urban interface	No change from existing	Potential limit to size and number of individual projects requiring new motorized access inside PCA	Potential limit to size and number of individual projects requiring new motorized access inside PCA	Precludes projects requiring new motorized access inside PCA	Precludes projects requiring new motorized access inside and outside PCA
<b>Grazing</b>					
Number of domestic sheep allotments closed inside the PCA <sup>13</sup>	2 (phase out)	4 (phase out)	4 (phase out)	4 (close)	4 (close)

<sup>13</sup> Two of the four sheep allotments under all action alternatives inside the PCA are planned for closure by the Gallatin National Forest in 2006.

Summary of the Specific Features of the Alternatives Considered in Detail

	Alternative 1	Alternative 2	Alternative 2-Modified	Alternative 3	Alternative 4
Number of domestic sheep allotments closed outside the PCA	0	0	0	0	75
Estimated number of cattle allotments closed inside the PCA	0	0	0	3	3
Estimated number of cattle allotments closed outside the PCA	0	0	0	0	2
Amount of change from existing level of sheep AMs	3,590 (phase out)	7,130 (phase out)	7,130 (phase out)	7,130 (close)	232,260 (close)
<b>Minerals</b>					
Potential change to oil and gas leasing decisions or proposed operations inside the PCA	Operations could be allowed in accordance with Guidelines and consultation with USFWS.	Operations could be allowed. Time delays and costs could increase due to increased mitigations.	Operations could be allowed. Time delays and costs could increase due to increased mitigations.	Approximately 0.7 million additional acres not available for oil and gas leasing/exploration.	Approximately 0.7 million additional acres not available for oil and gas leasing/exploration.
Potential change to oil and gas leasing decisions or proposed operations outside the PCA	Operations could be allowed following existing forest plan direction and consultation with USFWS.	Operations could be allowed following existing forest plan direction.	Operations could be allowed following existing forest plan direction.	Operations could be allowed following existing forest plan direction.	Approximately 3.3 million additional acres not available for oil and gas leasing/exploration.
Effects on hardrock mineral development	No change	Operations allowed in the PCA. Time delays and costs could increase due to increased mitigations.	Operations allowed in the PCA. Time delays and costs could increase due to increased mitigations.	Operations allowed in the PCA. Time delays and costs could increase due to increased mitigations.	Operations allowed in the PCA. Time delays and costs could increase due to increased mitigations.

Summary of the Specific Features of the Alternatives Considered in Detail

	Alternative 1	Alternative 2	Alternative 2-Modified	Alternative 3	Alternative 4
Effects on salable and mineral materials operations	No change	Operations could be allowed in the PCA. Time delays and costs could increase due to increased mitigations.	Operations could be allowed in the PCA. Time delays and costs could increase due to increased mitigations.	Mineral material sites classified as developed sites could be precluded. Approximately 50% of future large sites might not be possible.	Mineral material sites classified as developed sites could be precluded. Approximately 80% of future large sites might not be possible.
<b>Recreation</b>					
Effects to developed recreation—number of sites where capacity is held to 1998 or 2003 levels	0	267 sites Mitigation allowed	267 sites Mitigation allowed	267 sites No mitigation	721 sites No mitigation
Effects to motorized summer recreation—miles of motorized access routes to be decommissioned	0	0	0	487	1,850
Effects to developed and dispersed summer recreation—closures where conflicts occur inside the PCA	Closure in MS1, as identified. 1986 nuisance Guidelines apply.	No closures. CS <sup>14</sup> nuisance bear standards apply.	No closures. CS nuisance bear standards apply. Increased emphasis on minimizing conflicts.	Closure where recurring conflicts. CS nuisance bear standards apply	Closure where recurring conflicts. CS nuisance bear standards apply.
Effects to developed and dispersed summer recreation—closures where conflicts occur outside the PCA	No closures	No closures. State nuisance bear standards apply.	No closures. State nuisance bear standards apply. Increased emphasis on minimizing conflicts.	No closures. State nuisance bear standards apply.	Closure where recurring conflicts. State nuisance bear standards apply.
Effects to motorized winter recreation—acres closed to snow machine use	Temporary closures as conflicts identified in denning areas inside PCA.	Temporary closures as conflicts identified in denning areas inside PCA.	Temporary closures as conflicts identified in denning areas inside PCA.	0.6 million acres inside PCA	1.6 million acres inside and outside the PCA

<sup>14</sup> CS = Conservation Strategy

Summary of the Specific Features of the Alternatives Considered in Detail

	Alternative 1	Alternative 2	Alternative 2-Modified	Alternative 3	Alternative 4
<b>Transportation</b>					
Miles of road to be decommissioned	0	0	0	487	1,850
<b>Social and economic</b>					
Community infrastructure <sup>15</sup> /developed sites affected	No plan direction	15 Mitigation allowed	15 Mitigation allowed	15 No mitigation	16 No mitigation
Acres of land area with restrictions and mitigation allowed or not allowed	2.0 million acres in MS 1. Current forest plan direction.	3.4 million acres Mitigation allowed	3.4 million acres Mitigation allowed	3.4 million acres with more strict standards than Alternative 2. No mitigation allowed.	9.4 million acres with more strict standards than Alternative 2. No mitigation allowed.
Effects on ranching lifestyles—number of active sheep allotments inside the PCA and number of sheep allotments affected inside the PCA <sup>16</sup>	4 (2 phase out)	4 (4 phase out)	4 (4 phase out)	4 (4 close)	4 ( 4 close)
Effects on ranching lifestyles—number of active sheep allotments outside the PCA and number of sheep allotments affected outside the PCA	73 none	73 none	73 (allotments with recurring conflicts phased out on willing permittee basis)	73 none	73 (73 allotments to be closed)
Effects on ranching lifestyles—number of active cattle allotments inside the PCA and number of cattle allotments affected inside the PCA	70 Some reduction in MS 1	70 No change	70 (allotments with recurring conflicts retired on willing permittee basis)	70 (allotments with recurring conflicts would be closed)	70 (allotments with recurring conflicts would be closed)

<sup>15</sup> Infrastructure includes water treatment sites, power sub-stations, landfills, city/county/state facilities, dams, etc. on National Forest System lands.

<sup>16</sup> Two of the four sheep allotments are planned for closure by the Gallatin National Forest in 2006.



*Summary of the Specific Features of the Alternatives Considered in Detail*

	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 2-Modified</b>	<b>Alternative 3</b>	<b>Alternative 4</b>
Effects on ranching lifestyles—number of active cattle allotments outside the PCA and number of cattle allotments affected outside PCA	280 No change	280 No change	280 (allotments with recurring conflicts retired on willing permittee basis )	280 No change	280 (allotments with recurring conflicts would be closed)
Timber-related employment and income	No change	No change	No change	Some decrease	Most decrease