FINAL REPORT

STATEWIDE PROGRAMMATIC BALD EAGLE BIOLOGICAL ASSESSMENT

Submitted to:

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ACRONYMS AND ABBREVIATIONS

ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
APD	Application for Permit to Drill
AML	Appropriate Management Level
AMP	Allotment Management Plan
APHIS	Animal and Plant Health Inspection Service
APLIC	Avian Power Line Interaction Committee
ARPA	Archeological Resources Protection Act
AUM	Animal Unit Month
BA	Biological Assessment
BLM	Bureau of Land Management
BMP	Best Management Practice
BOR	Bureau of Reclamation
CBM	Coal Bed Methane
CFR	Code of Federal Regulations
C&MU	Classification and Multiple Use
COA	Conditions of Approval
DEQ	Department of Environmental Quality
DDT	Dichloro-diphenyl-trichloroethane
DPC	Desired Plant Communities
EA	Environmental Assessment
EEA	Environmental Education Area
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ERMA	Extensive Recreation Management Area
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
FO	Field Office
GML	General Mining Law
GTNP	Grand Teton National Park
HMP	Habitat Management Plan
HMU	Habitat Management Unit
H_2S	Hydrogen Sulfide
LBA	Lease by Application
MMBF	Million Board Feet
NEPA	National Environmental Policy Act
NPS	National Park Service
NRHP	National Register of Historic Places
NSO	No Surface Occupancy
OHV	Off-Highway Vehicle
ORV	Off-Road Vehicle
PLO	Public Land Order
POD	Plan of Development
PSD	Prevention of Significant Deterioration
RAMP	Recreation Area Management Plan
RMP	Resource Management Plan
RMU	Resource Management Unit
ROW	Right of way

R&PP	Recreation and Public Purpose
RPS	Rangeland Program Summary
SHPO	State Historic Preservation Office
SRMA	Special Recreation Management Area
T&E	Threatened and Endangered
TUP	Temporary Use Permit
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VRM	Visual Resource Management
WDEQ	Wyoming Department of Environmental Quality
WGFD	Wyoming Game and Fish Department
WHHMA	Wild Horse Herd Management Area
WSA	Wilderness Study Area
WSR	Wild and Scenic Rivers
WY	Wyoming
WYNDD	Wyoming Natural Diversity Database
YNP	Yellowstone National Park

1.0 INTRODUCTION

PURPOSE

The purpose of this programmatic biological assessment (BA) is to assess the potential effects to the bald eagle (*Haliaeetus leucocephalus*) from management actions included in 12 Resource Management Plans (RMPs) of the Wyoming Bureau of Land Management (BLM) (**Figures 1 through 5)**. Specific objectives of this biological assessment include the following:

- Summarize the biology of the bald eagle, including known and potential distribution in Wyoming;
- Review pertinent RMPs and identify proposed actions with the potential to affect the bald eagle;
- Assess the potential effects of management actions proposed in the RMPS on the bald eagle; and
- Prepare an effects determination for the bald eagle for each management action in each RMP.

The analysis area for each management action is based on the boundaries specified in the individual RMPs for each action. These boundaries are described in the analysis section for each RMP and shown in Figures 1 through 5. The determination for each management action is based on the nature of that action and on the available bald eagle data for the area that is affected by the management action.

REPORT ORGANIZATION

This report is organized into four sections, including the following:

1.0 Introduction – describes the purpose of the analysis, the scope of the biological assessment, the action area, and the methods.

2.0 Species Information – summarizes the current listing status, and the ecology, abundance, distribution, threats, and current conservation measures implemented to protect the bald eagle in Wyoming.

3.0 Analysis of Resource Management Plans – presents a summary of each RMP, a description of bald eagle habitat use and occurrence within the area affected by each RMP, an analysis of effects from each of the management prescriptions, recommended conservations measures, and a determination specific to each management action for each RMP.

4.0 Conservation Recommendations – provides recommendations that may further reduce potential effects to bald eagle behavior and habitats. These recommended measures were prepared in consultation with the U.S. Fish and Wildlife Service office in Cheyenne, Wyoming.

Figure 1: Wyoming Bald Eagle Nest, Winter Roost, and Foraging Locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

Figure 2: Wyoming BLM Northwest Region – Bald Eagle Nest, Winter Roost, and Foraging Locations

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Figure 3: Wyoming BLM Northeast Region – Bald Eagle Nest, Winter Roost, and Foraging Locations

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Figure 4: Wyoming BLM Southeast Region – Bald Eagle Nest, Winter Roost, and Foraging Locations

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Figure 5: Wyoming BLM Southwest Region – Bald Eagle Nest, Winter Roost, and Foraging Locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

METHODS

Each management action within 11 RMPs (**Table 1)** was reviewed to identify those with the potential to affect the bald eagle. For the Snake River Resource Area of the Pinedale Field Office (FO), management actions from the Draft Environmental Impact Statement (EIS) were evaluated. Each of the BLM FOs was contacted and all available occurrence and habitat data for the bald eagle were requested. Bald eagle occurrence data was also obtained from the Wyoming Game and Fish Department and Wyoming Natural Diversity Database (WYNDD). Bald eagle information was evaluated and potential effects from the management actions were analyzed. Management actions were evaluated in terms of their potential to directly and indirectly affect the bald eagle. State, private, local, and tribal activities were also evaluated to assess their potential to cumulatively affect the bald eagle.

TABLE 1: RMPS ANALYZED IN BALD EAGLE BIOLOGICAL ASSESSMENT

Field Office	Resource Management Plan (Year Published)
Buffalo	Buffalo Resource Management Plan (2001)
Casper	Platte River Resource Area Resource Management Plan (1985)
Cody	Cody Resource Area Resource Management Plan (1990)
Kemmerer	Kemmerer Resource Management Plan (1986)
Lander	Lander Resource Management Plan (1987)
Newcastle	Newcastle Resource Management Plan (2000)
Pinedale	Pinedale Resource Management Plan (1988)
Pinedale	Snake River Draft Resource Management Plan EIS (2003)
Rawlins	Great Divide Resource Area Resource Management Plan (1990)
Rock Springs	Green River Resource Management Plan (1997)
Worland	Grass Creek Resource Management Plan (1998)
Worland	Washakie Resource Management Plan (1988)

After potential effects were identified, the results were used to establish a determination for each management action under each RMP. Determination categories considered as part of this BA include the following:

- **No effect**;
- May affect, but is **not likely to adversely affect** due to:
  - Beneficial effects,
  - Discountable effects, and/or
  - Insignificant effects; or
- May affect, **is likely to adversely affect**.

These determinations are further defined in the U.S. Fish and Wildlife Service (USFWS) Endangered Species Consultation Handbook (USFWS 1998), as summarized in the following text.

"No effect" means there are absolutely no effects to the species and its critical habitat, either positive or negative. A no effect determination does not include small effects or effects that are unlikely to occur. If effects are insignificant (in size) or discountable (extremely unlikely), a determination of "not likely to adversely affect" is appropriate.

"Not likely to adversely affect" means that all effects to the species and its critical habitat are beneficial, insignificant, or discountable. Beneficial effects have contemporaneous positive effects without adverse effects to the species or its critical habitat. (For example, there cannot be "balancing," where the benefits of the action would outweigh the adverse effects.) Insignificant effects relate to the size of the impact and should not reach the scale where take occurs. Discountable effects are extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur (USFWS 1998). Determinations of "not likely to adversely affect, due to beneficial, insignificant, or discountable effects" require written concurrence from the USFWS.

"Likely to adversely affect" means that the action would have an adverse effect on the species or its critical habitat. Any action that would result in take of an endangered species is considered an adverse effect. A combination of beneficial and adverse effects is still considered "likely to adversely affect," even if the net effect is neutral or positive. Adverse effects are not considered discountable because they are expected occur. The probability of occurrence must be extremely small to qualify as discountable effects. Likewise, an effect that can be detected in any way or that can be meaningfully articulated in a discussion of analysis results is not insignificant: it is an adverse affect. This determination requires formal consultation with the USFWS.

2.0 SPECIES INFORMATION

LISTING STATUS

The bald eagle was listed as endangered on February 14, 1978, in all of the conterminous United States with the exception of Minnesota, Wisconsin, Michigan, Oregon, and Washington, where it was classified as threatened (USFWS 1978). On July 12, 1995, USFWS reclassified the bald eagle from endangered to threatened throughout its range in the lower 48 states (USFWS 1995). Most recently, on July 6, 1999, the bald eagle was proposed for delisting (USFWS 1999). This proposal has not been finalized or withdrawn to date.

DESCRIPTION

The bald eagle is a large, long-lived bird of prey. Adults have dark-brown bodies, white heads, and white tails. Characteristic adult plumage is not achieved until at least 4 years of age. Juveniles exhibit a series of plumages before they achieve adult coloration; in some plumages, the young may resemble adult golden eagles (*Aquila chrysaetos*).

HABITAT USE

Nesting Habitat

Bald eagles typically nest in forested areas adjacent to large bodies of water. Nests are most often constructed in the tops of large trees but can be built on cliffs or the ground in treeless areas. Besides the distance to nearest water, other features that influence nest location can include diversity, abundance, and vulnerability of prey base; presence and proximity of shallow water; and absence of human development and disturbance (Buehler 2000). In Wyoming, groves of mature cottonwoods found along streams and rivers are typically used as bald eagle nesting habitat. Conifers are also commonly used for nesting. Known active nests that occur throughout Wyoming are discussed in the Environmental Baseline section of the FO where they occur.

Communal Winter Roosting Habitat

Wintering bald eagles occur throughout the country but are most abundant in the West and Midwest. Abundant, readily available food supplies in conjunction with one or more suitable night roost sites are the primary characteristics of occupied winter habitat. The majority of wintering bald eagles are found near open water where they feed on fish and waterfowl, often taking those that are dead or vulnerable. When suitable conditions exist, particularly lack of human disturbance, wintering bald eagles will forage in terrestrial habitats capturing small and medium sized mammals (such as prairie dogs and rabbits). They also may scavenge carrion of roadkill, winter mortalities of big game or livestock, or livestock associated with ranching (USFWS 1983). The majority of bald eagle wintering range occurs along major river systems and large bodies of water in the Midwestern states, the Chesapeake Bay region, the Pacific Northwestern states, and the states of the intermountain west, including Wyoming, Utah, Colorado, New Mexico, and Arizona. Roosts are commonly situated in riparian forests (cottonwoods or conifers) and upland conifer forests, particularly northeast facing ponderosa pines. Known communal winter roosting areas that occur throughout Wyoming are discussed in the Environmental Baseline section of the FO where they occur.

Foraging Habitat and Behavior

The bald eagle typically hunts from perches or while soaring over suitable prey habitat. Prey is often taken off the wing and can include snatching fish from surface waters, snaring waterfowl on the wing, and pouncing on small mammals. When it is available, carrion is also eaten. General foraging habitats include nearly all upland and aquatic habitats that support sufficient prey species. In Wyoming, suitable general foraging habitats can include grasslands, shrublands, streams, rivers, lakes, and reservoirs. Concentrated foraging habitats typically support high densities of prey species and can often be a reliable source of prey for wintering bald eagles. In Wyoming, concentrated foraging habitats can include big game crucial winter ranges, ice-free water bodies that support fish and waterfowl during the winter, cattle and sheep stockyard operations, and big game roadkill.

DISTRIBUTION

Bald eagles occur year-round in Wyoming. Wintering bald eagles generally occur in areas associated with large, ice-free water bodies and near winter concentrations of ungulates, livestock, waterfowl, or fish. The distribution of bald eagle nesting and communal winter roosting areas is associated with habitat availability and amount of human disturbance. Most open habitats with sufficient prey base in Wyoming can be utilized for foraging by bald eagles. Eagles are also sensitive to disturbances within foraging areas and their distribution patterns may be affected by human activity.

The largest nesting concentration of bald eagles in Wyoming is in the northwestern corner of the state, in the Greater Yellowstone area. Bald eagle nesting has also been documented along several major drainages throughout the state (WGFD 2000). Results of annual surveys indicate bald eagle populations within the state are increasing and have exceeded management goals since 1987. In 1999, 97 bald eagle pairs produced 85 young in Wyoming (WGFD 2000).

THREATS

The decline of nesting bald eagle populations in the lower 48 states during the last century has been attributed to several factors, including habitat loss or alteration, environmental contamination, poisoning, shooting, and collisions and electrocutions.

Habitat loss includes the physical disturbance associated with development and with human activities that can deter eagles from otherwise suitable habitats. Bald eagles are particularly sensitive to human activities near active nests and communal winter roosting areas. Unfamiliar or new activities near active nests can be harmful during egg incubation and brooding periods. Disturbance can flush adults from nests and expose eggs or young to adverse weather conditions or deprive them of food, and thus decrease hatch rates and young survivability (USFWS 1995). Human activities near active communal winter roosting areas can cause eagles to abandon these habitats and expend energy finding other suitable roost areas. The additional energy used and the added stresses can lead to general deterioration in health and possibly affect survivability and reproductive success.

Before the use of organochlorine-based pesticides, including dichloro-diphenyl-trichloroethane (DDT), was banned in the U.S. in 1972, bald eagle populations declined significantly. The use of regulated pesticides and poisons still accounts for bald eagle deaths in many of the western states, where these chemicals are used to control rodent pests and coyotes (USFWS 1995).

Long-term exposure to environmental contaminants is also a concern in the recovery of this species. Lead can poison bald eagles when they ingest prey that contains lead shot or fragments, or where the prey has assimilated lead into its own tissues. Mercury exposure is also a concern in some parts of the country. Exposure to high levels of mercury can result in neurological problems that affect flight and other motor skills and can alter and reduce hatching success in bald eagle eggs (USFWS 1995).

Illegal shooting still poses threats to individual bald eagles. Increased law enforcement and public awareness have reduced shooting deaths to a small fraction of the number of mortalities that once occurred in the early 1900s (USFWS 1995).

Eagles are also susceptible to collision with and electrocution from aboveground utility lines. In open habitats, eagles may collide with new or unfamiliar support structures or electrical lines. Eagles are also susceptible to electrocution from contact with utility lines while they fly or perch on poles that are not equipped with devices intended to minimize electrocution risks. In addition, eagles often scavenge carcasses from roadways. This behavior can lead to increased risks of vehicle collisions with bald eagles.

3.0 ANALYSIS OF RESOURCE MANAGEMENT PLANS

INTRODUCTION

The management actions in the RMP for each FO with known bald eagle habitats (active nests, communal winter roosts, or concentrated foraging habitats) were reviewed. Management actions were evaluated for their potential to affect bald eagles and their known habitats, including management actions or mitigation measures that are incorporated in the RMP. The following is a summary of the bald eagle habitats and management actions for 12 RMPs and an analysis and determination of the potential effects.

The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* (**Appendix A**) is intended to attain statewide consistency in establishing requirements for avoiding and mitigating environmental impacts and resource and land use conflicts. The *BLM Guidelines for Livestock Grazing Management* (**Appendix B**) also applies to surface disturbing activities. The guidelines apply to all actions that may disturb or disrupt the surface in all of the FOs. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* includes several guidelines that are applicable to a variety of resources, including the bald eagle. These guidelines apply to all surface disturbing activities on lands administered by BLM and are considered in the assessment of potential affects. Under the wildlife mitigation guideline, the following guidance applies to the bald eagle:

- To protect important nesting habitat for raptors, sage grouse, and sharp-tailed grouse, activities or surface use will not be allowed from February 1 to July 31 in certain areas encompassed by the authorization. The same criteria apply to defined raptor and game bird winter concentration areas from November 15 to April 30. These guidelines will be considered for all surface-disturbing activities (subpart 2b of Wildlife Mitigation Guideline).

- No activities or surface use will be allowed on the portion of the authorization area for the purpose of protecting habitats (e.g., sage/sharp-tailed grouse breeding grounds, and/or other species/activities) (subpart 2c of Wildlife Mitigation Guideline).

- When portions of the authorized use area are known or suspected to be essential habitat for the bald eagle, which is threatened, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that bald eagles are identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, and facility design modifications) (subpart 2d of Wildlife Mitigation Guideline).

BUFFALO FIELD OFFICE

The Buffalo Field Office (FO) is located in northeastern Wyoming (encompassing Campbell, Johnson, and Sheridan counties) and occupies 802,531 acres of public surface lands. The objective of the *Buffalo Field Office Resource Management Plan* (BLM 2001) is to provide balance among competing resource and land use demands in the Buffalo FO by providing the sustained production of needed goods and services while protecting environmental values.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Buffalo FO and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Thirty-three bald eagle nests, representing approximately 18 nesting territories, are known to occur within the Buffalo FO (**Figure 6)**. This tally includes five active nests that were observed during surveys conducted in May 2002 and April 2003 (Bills 2003). None of the 33 nest locations occur on surface lands administered by BLM. Twenty-seven nests are located on private lands and six are on State lands. Many of these nests are located in riparian habitats associated with major creeks and rivers, including Powder River, Clear Creek, Lone Tree Creek, Tongue River, Youngs Creek, and Wild Horse Creek.

Communal Winter Roosting Habitat

Over 40 communal winter roosting areas are known to occur in the Buffalo FO, primarily along major rivers, including Old Woman Creek, South Fork Powder River, Middle Fork Powder River, North Fork Powder River, Powder River, and the Belle Fourche River (**Figure 6**) (Bills 2002). Winter roosts are also associated with domestic sheep concentrations and pronghorn winter range (Anderson and Patterson 1988). Many of the domestic sheep operations active in the mid-1980s are no longer active. The associated winter population of bald eagles has decreased and many of the roosts are likely no longer in use (Bills 2002). Land ownership along these rivers is predominantly private, with some areas under BLM administration. Based on the relative proportion of lands administered by BLM versus privately owned lands along these rivers, the majority of communal winter roosting areas in this FO are expected to be on privately owned lands.

Concentrated Foraging Habitat

No known concentrated foraging habitats, such as ice-free water bodies that support fish and waterfowl, cattle or sheep stockyards, or concentrated big game mortality areas, occur in the Buffalo FO (Bills 2002). The rivers, streams, lakes, and upland habitats that occur throughout the Buffalo FO provide general foraging opportunities for bald eagles.

Figure 6: Buffalo Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

Existing Conservation Measures

The following section presents measures included in the Buffalo RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) "Fire: aerial retardant use will be restricted to keep retardant out of water sources" (BLM 2001, p. 6).

(b) "Forest Resources: Timber harvests are prohibited within 200 feet of surface water" (BLM 2001, p. 7).

(c) "Threatened, Endangered, and Candidate Species: Known populations of threatened and endangered species will be protected" (BLM 2001, p. 32).

(d) "Threatened, Endangered, and Candidate Species: Surface disturbance or occupancy will not be allowed within ½ mile of bald eagle communal winter roosts from November 1 through March 30. Documented nest sites, roosts, cottonwood trees, and other potentially critical habitats related to bald eagle hunting and concentration areas will also be protected" (BLM 2001, p. 32).

(e) "Vegetation Resources: Vegetation treatments will be designed to meet overall resource management objectives and will be consistent with the policy to protect or improve biodiversity and water quality" (BLM 2001, p. 33).

(f) "Vegetation Resources: Prescribed burns will be conducted to support vegetation and wildlife habitat objectives" (BLM 2001, p. 33).

(g) "Watershed and Water Resources: No surface disturbance will be allowed within 500 feet of any spring, reservoir, water well, or perennial stream unless waived by the authorized officer" (BLM 2001, p. 35).

(h) "Wildlife Habitat: Maintain biological diversity of plant and animal species" (BLM 2001, p. 35).

(i) "Wildlife Habitat: Support WGFD strategic plan objective levels to the extent practical and to the extent consistent with BLM multiple use management requirements" (BLM 2001, p. 35).

(j) "Wildlife Habitat: Maintain, and where possible, improve fisheries and wildlife habitat" (BLM 2001, p. 35).

(k) "Wildlife Habitat: To the extent possible, provide habitat for threatened and endangered and special status plant and animal species on all public lands in compliance with the Endangered Species Act and approved recovery plans" (BLM 2001, p. 35).

(l) "Wildlife Habitat: Surface disturbance or disruptive activity is not allowed in crucial elk winter range between November 15 and April 30, and in elk calving areas from May 1 to June 30" (BLM 2001, p. 35).

(m) "Wildlife Habitat: Surface occupancy or disturbance is not allowed on approximately 6,000 acres to protect important raptor, sharp-tailed grouse, and sage grouse habitat. An additional 430,700 acres may be restricted from surface-disturbing activities during the breeding and nesting period of February 1 to July 31" (BLM 2001, p. 35).

(n) "Wildlife Habitat: Surface disturbance occupancy is not allowed within ½ mile of bald eagle winter communal roosts from November 1 through March 30" (BLM 2001, p. 35).

(o) "Wild and Scenic Rivers: …Middle Fork of the Powder River meet the WSR suitability factors and should be managed to maintain or enhance their outstanding values" (BLM 2001).

(p) "Surface disturbance will be prohibited within 500 feet of surface water or riparian areas" (BLM 2001.)

(q) "To protect important raptor nesting habitat, activities or surface use will not be allowed from February 1 through July 31 within certain areas encompassed by the authorization. The same criteria apply to defined raptor winter concentration areas from November 15 through April 30" (BLM 2001).

(r) "No activities or surface use will be allowed on that portion of the authorization area identified within (legal description) for the purpose of protecting (e.g., sage/sharp-tailed grouse breeding grounds, and/or other species/activities) habitat" (BLM 2001).

(s) "Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (name) which is a threatened or endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that (name) occurrence is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications)" (BLM 2001).

Analysis of Proposed Management Actions and Effects

The Buffalo RMP (2001) describes each management prescription applied within the FO. The following text summarizes the management action prescriptions as presented in the Buffalo RMP. The effects analysis and determination for each management action is based on the description of each management action provided in the RMP and any measures or guidelines that are included in the RMP. Measures that may minimize impacts to the bald eagle but are not included as part of the RMP will be presented in the Recommended Conservation Measures section. These measures are not considered in the effects determination because they are not included as part of the action. Refer to the Buffalo RMP for a complete description of each management prescription (BLM 2001).

Air Quality Management

Management Actions

The objective of air quality management is to maintain or enhance air quality, protect public health and safety and sensitive natural resources, and minimize emissions that could result in acid rain, violations of air quality standards, or reduce visibility. Any BLM-initiated actions or authorizations that result in air quality or visibility deterioration are conditioned to avoid violating Wyoming and national air quality standards. Dust control measures are used to evaluate visibility and reduce particulate impacts for all construction and other surface-disturbing activities. Air quality permits are obtained from the Wyoming Department of Environmental Quality (WDEQ) before any prescribed fires are set on public land.

Effects Analysis

Dust control and preparation of permits for the Wyoming Department of Environmental Quality are the primary actions associated with this management prescription. Preparation of permits is an administrative duty that would not impact the bald eagle or its habitats. Dust control activities typically occur in the summer months and include the use of a water tanker truck to apply a mist of water to unpaved road surfaces. Dust control activities are typically limited in frequency and intensity. This activity is not expected to impact nesting bald eagles or their habitats because nesting eagles do not typically nest near active roadways that may require dust control. Although dust control activities may occur in suitable terrestrial foraging habitats, these actions are not expected to have a measurable impact to foraging bald eagles.

Determination

Implementation of air quality management actions, as presented in the Buffalo RMP (2001), is **not likely to adversely affect** the bald eagle, due to **insignificant effects**.

Cultural Resource Management

Management Actions

The objective of cultural resource management is to protect, preserve, interpret, and manage significant cultural resources for their informational, educational, scientific, and recreational values. Using the land for scientific purposes such as archeological collections is authorized through a permit system. Site-specific inventories for cultural resources are required before any surface-disturbing activities can begin. Adverse effects on significant resources are mitigated or the resources themselves are avoided. Sites listed on, or eligible for, the National Register of Historic Places (NRHP) are protected. Rock art, as well as prehistoric and historic archaeological sites and districts associated with specific time period or cultures, are managed for scientific, public, and sociocultural use. General areas are managed for research that emphasizes interpretation of the environments in which prehistoric man lived. Specific sites or areas are preserved for future study and use. Cultural resource interpretive sites, such as rock art and historic trails, are developed or will be developed, providing such public benefits as scenic overlooks, signs, and walking trails.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Disturbance or destruction of nesting and communal winter roosting sites is not expected because surface disturbing activities are restricted within these habitats. Disturbance and destruction of terrestrial foraging habitats may occur.

Determination

Implementation of cultural resource management actions, as presented in the Buffalo RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles.

Fire Management

Management Actions

The objectives of fire management are to restore the natural role of fire in the ecosystem, cost effectively protect life, property, and resource values from wildfire, and to use prescribed fire to achieve multiple use management goals. Unwanted wildfires will be suppressed. The use of some types of suppression equipment will be restricted in some areas, and fire and suppression damage will be rehabilitated. Wildfires will be managed in all areas of the FO. Priority will be given to suppressing fires in or those threatening higher value resources including, commercial timber areas, Wilderness Study Areas (WSAs), Middle Fork Powder River management area, developed recreation sites, and areas of wildland/urban interface and keeping fires from spreading onto private, state, or other federal lands. Protecting human life will be the highest priority of fire management. Heavy equipment will be restricted from use during wildfire suppression in the WSAs, the Middle Fork Powder River management area, and areas of known cultural values (for example, ruts of the Bozeman Trail). Aerial retardant use will be restricted to keep retardant out of water resources. Fire lines that are constructed by heavy equipment, or on steep slopes, will be rehabilitated to prevent or control erosion. Rehabilitation includes, but is not limited to, water barring and reseeding. Heavy equipment and hand tools may be used to implement rehabilitation of burned areas. Prescribed burns will be used as a tool to reach management objectives planned for areas in conjunction with such things as range and wildlife habitat management projects.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Buffalo RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression, prescribed burning, and rehabilitation activities to harass or displace bald eagles and to disturb or destroy suitable nesting, communal winter roosting, and foraging habitats.

Forest Management

Management Actions

The objective of forest management is to maintain and enhance the health, productivity, and biological diversity of forest and woodland ecosystems and provide a balance of natural resource benefits and uses, including opportunities for commercial forest production. Timber harvesting is allowed at 10-year harvest levels and not to exceed 10 million board feet. Forest products are sold by permit, as requested. Easements are acquired across private and state land where access is

needed for timber harvest and other forest management purposes. Individual clear cuts are not allowed to exceed 20 acres. Harvested areas are planted if they have not regenerated within 5 years. Regeneration areas are often fenced to prevent livestock from damaging seedlings. Timber harvests are prohibited within 200 feet of surface water. Timber harvesting is limited to commercial forestlands with slopes less than 45 percent. In summary, activities commonly associated with this prescription may include timber harvesting, timber selling, easement acquisition, tree planting, and fencing of regeneration areas, and management of urban/forest interface.

Effects Analysis

In the Buffalo FO, bald eagle nests are typically associated with cottonwood forests of riparian habitats and to a lesser extent, upland conifers. Communal winter roosts occur along riparian areas and in upland conifers (Bills 2003). Open upland habitats may also be used for foraging. These bald eagle habitats are distinct from the coniferous habitats that are subject to forest management actions. Although few bald eagles currently occur in these coniferous forests, these habitats are expected to provide suitable nesting, roosting, and foraging habitats and therefore, may be occupied in the future. If these coniferous habitats were to be used by bald eagles, timber management activities may result in displacement of eagles or the disturbance of suitable habitats.

Determination

Implementation of forest management actions, as presented in the Buffalo RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the possibility of forest management activities in coniferous forests to affect bald eagles or their habitats.

Geology and Mineral Resource Management

Management Actions

The management objective of geology and mineral management is to maintain or enhance opportunities for mineral exploration and development while maintaining other resource values. For split-estate lands (lands where a) the surface is federally-owned and administered by BLM while the subsurface minerals are administered by either private entities or by local or state governments or on b) lands where the surface is owned and administered by private entities or by local and state governments and some or all of the subsurface minerals are federally owned and administered by BLM) the mineral owners are entitled access to their minerals, to explore for and develop them, and to prudently use an area of the land surface and surface resources that are directly necessary for exploration and development. BLM has the authority and the responsibility to plan for and manage the federal minerals under these split-estate lands. Planning and managing the federal estate includes:

- Making planning and management decisions that salable and leasable federal minerals will or will not be sold or leased, and implementing those decisions;
- Deciding whether or not mining claims may be filed for locatable federal minerals and implementing those decisions; and,
- Deciding any required conditional provisions, mitigation measures, and land surface reclamation requirements that would be included in any federal minerals sales or leases (to include use authorizations) that BLM may issue related to exploration and development of the federal minerals in these lands, and implementing those decisions.

Within the Buffalo FO, oil and gas will continue to be leased and developed. There are approximately 4.66 million acres of BLM-administered federal oil and gas mineral estate available for leasing, exploration, and development in the FO. Only 2½ percent of the total federal minerals in the Buffalo FO are not available for lease or development. The environment will be adequately protected by application of BLM's standard stipulations and by case-by-case application of other mitigation of surface disturbance. Prior to oil and gas surface use, an acceptable plan of mitigation of anticipated impacts must be negotiated between the lessees and approved by the authorized officer. This stipulation may affect development, operations, and maintenance of facilities. Stipulations regarding bald eagle timing limitations and surface use are included in the leasing process and expected to minimize effects to nesting and communal winter roosting bald eagles.

All federal coal estates in the Buffalo FO are open to study and exploration. Under the federal coal-leasing program, federal coal lands are screened for coal potential, unsuitability, and multiple use constraints. Federal coal lands available for consideration for competitive coal leasing are open for lease by application (LBA), lease modifications, emergency leases, and exchanges. This includes uncommitted coal land determined to be acceptable for coal development and leasing consideration within the priority areas for competitive leasing. Coal lands outside the priority leasing areas that are applied for must pass the coal screening process before they will be considered for leasing. As part of the coal screening process (Appendix D of the Buffalo RMP, 2001) are criteria pertaining to the occurrence bald eagle nesting, communal winter roosting, and concentration areas on lands considered for coal mining. These criteria include the application of appropriate buffers and timing limitations to minimize effects to bald eagles.

Unless formally withdrawn from mineral location, all lands in the FO are open to exploration, location, and development of locatable, salable, and other minerals or resources on valid mining claims. Stipulations regarding bald eagle timing limitations and surface use are included in the leasing process and expected to minimize effects to nesting and communal winter roosting bald eagles.

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of geology and mineral management actions, as presented in the Buffalo RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Hazardous Materials Management

Management Actions

The objectives of hazardous materials management are to protect public and environmental health and safety on public lands administered by BLM, comply with applicable federal state laws, prevent waste contamination caused by any actions authorized by BLM, minimize federal exposure to liabilities associated with waste management on public lands, and integrate hazardous materials and waste management policies and controls into all BLM programs. If a hazardous material is released on public land, appropriate warnings are provided to potentially affected communities and individuals. Public lands contaminated with hazardous wastes are reported, secured, and cleaned up according to federal and state laws, regulations, and contingency plans.

Effects Analysis

Emergency responses involving increased human presence and the use of machinery and heavy equipment may influence bald eagle behavior by causing eagles to avoid or abandon otherwise suitable habitats. Depending on the location and severity of hazardous material releases, bald eagle nesting, wintering roosting, and foraging habitats may be affected. Hazardous material release and response actions may also affect potential bald eagle prey by causing injury or mortality, displacing prey from suitable habitats, or disturbing prey habitats. These potential effects to prey and their habitats would likely be limited in scale relative to the abundance of prey and foraging habitat available throughout the Buffalo FO.

Determination

Implementation of hazardous materials management actions, as presented in the Buffalo RMP (2001), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that releases of hazardous materials and subsequent response actions will harass or displace bald eagles and disturb or destroy suitable eagle habitats.

Lands and Realty Management

Management Actions

The management objectives of lands and realty management are to avoid the potential of inadvertent trespass by people accessing the public lands and improve access and manageability of the public lands. Non-BLM lands near blocked BLM-administered public land in the South Big Horns or lands with high scenic value are considered more desirable than non-BLM land near blocked BLM-administered lands without timber or scenery. Land with valuable wildlife habitat is also important if blocks of public land adjoin it.

The management objective for rights of way is to support the multiple-use management goals of the various BLM resource programs; respond to public requests for land authorizations, sales, and exchanges; and, acquire access to serve administrative and public needs. Long-term occupancy of the public lands for roads, power lines, pipelines, communication sites, and irrigation ditches is authorized by granting a right of way (ROW). ROWs are to be removed and reclaimed upon termination of the grant. Transmission lines and transportation facilities are located to the extent

feasible within identified corridor areas. Except for the North Middle Butte area, the entire Buffalo FO is open for rights of way development. From 1985 to 1994, an average of 80 miles of roads, 60 miles of pipelines, 150 miles of power lines, and 5 communication sites were built annually. Approximately 20 percent of this activity has occurred on public land surface. This level of activity is expected to remain consistent through the year 2005.

The management objectives of recreation and public purpose (R&PP) use are to provide outdoor recreational opportunities on BLM-administered public land while providing for resource protection, visitor services, and the health and safety of public land visitors. R&PP applications will be considered for recreation purposes. Uses that are not compatible with each R&PP will not be allowed. Three R&PP applications are anticipated before the year 2006.

The management objective of withdrawals is to support management of other resource programs and other Federal agencies. Withdrawals are used to segregate or reserve lands for a specific purpose or use. There are several withdrawals in the FO, including stockdrive withdrawals, military withdrawals, public water reserves, Bureau of Reclamation (BOR) withdrawals, wildlife refuge withdrawals, power site withdrawals, and public housing withdrawals. The Amsden Creek Winter Game Range located approximately 3 miles west of the town of Dayton is a wildlife refuge area withdrawal (about 3,500 acres). This withdrawal is managed as a wildlife protective area by the WGFD through a cooperative agreement. The Middle Fork recreational withdrawal (about 11,000 acres) is located west of the town of Kaycee. It protects the Middle Fork area from mineral entry because this area has unique visual qualities, wildlife habitat, fisheries, and general outdoor recreational qualities.

Approximately 138,700 acres of public lands that are more difficult or less economic to manage than most BLM-administered public lands have priority consideration for exchange, public sale, or transfer of jurisdiction to another agency. Resources such as archeological values, historic values, and wildlife values could cause the lands to be retained. Priority is given to acquiring public land in areas adjacent to major blocks of public land, especially in areas of high recreational potential like the south Big Horn Mountains. Exchanges are used to acquire high resource value lands and to reduce management burdens on other parcels. Exchanges can also be used for the sole purpose of acquiring access. Easements that will provide access to better blocks of public lands for recreation and administrative purposes will continued to be pursued.

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Management actions associated with recreation and public use are expected to consider other resource values when evaluating recreational and public use opportunities. Such considerations will limit recreational opportunities within known bald eagle nesting and communal winter roosting areas, but may occur in the diverse terrestrial foraging habitats available in the Buffalo FO. Recreational and public use of bald eagle terrestrial foraging habitats may cause eagles to avoid or abandon these habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction

that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Activities associated with land resource management, as presented in the Buffalo RMP (2001), are **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Livestock Grazing Management

Management Actions

The objective of livestock grazing management is to maintain or improve forage production and range condition to provide a sustainable resource base for livestock grazing on the public lands while improving wildlife habitat and watershed. Livestock grazing is allowed on all public lands in the FO except on about 6,000 acres (1 percent) where it has been determined to be incompatible with other resource uses or values. Areas closed to livestock grazing due to conflicts with other resource uses include some timber sale areas when these lands are being revegetated following harvests, and public lands within the Taylor, Kerns, and Amsden big game winter ranges. Developed recreation sites such as picnic areas, campgrounds, and the Petrified Tree Environmental Education Area are also closed to livestock grazing. Any permanent increases in the amount of forage produced are considered for wildlife and watershed protection before additional livestock use is authorized. The level of livestock use authorized on the allotments is determined by BLM specialists, in consultation with the grazing lessee and other affected interests, using inventory and monitoring information.

Management actions on grazing allotments are prioritized based on the classification of the allotments into one of three management categories: maintain (M), improve (I), and custodial (C). These categories broadly define our management objectives for the BLM-administered public lands in the allotment. The priority order for management actions on the allotments are "I," "M," and "C." There are 33 "I" category allotments, 75 "M" category allotments, and 313 "C" category allotments in the Buffalo Field Office Area. Slightly over 70 percent of the public lands in the FO are in the "M" and "I" management categories.

Fences will be constructed to maintain wildlife mobility in important habitat areas. Fences on public land that are hindering natural movement of wildlife will be modified to conform to BLM standards. Since 1985, about 329 miles of new fence have been constructed and approximately 0.1 mile modified or reconstructed annually. About 10 percent of this was on BLM-administered public surface. Construction of an average of 33 miles of new fence is expected annually through 2005, of which about 10 percent of this would be on BLM-administered public surface. Since 1985, an average of 10 reservoirs, 15 springs, 70 miles of pipeline, and 40 wells have been constructed annually, of which about 10 percent was on BLM-administered public lands. An average of about 5 reservoirs, 15 springs, 50 miles of pipeline, and 30 wells are expected to be constructed annually through 2005, of which about 10 percent of this will be on BLM-administered public surface.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may affect foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Buffalo RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Off-Highway Vehicle (OHV) Management

Management Actions

The objective of OHV management is to provide outdoor recreational opportunities on BLM-administered public land while providing for resource protection, visitor services, and the health and safety of public land visitors. Using motorized off-highway vehicles requires no fee and no permit, but their use is restricted depending on whether the area has been designated as closed, limited, or open. Until on-the-ground signing has occurred, OHV use in “limited” areas will only be permitted on existing roads and vehicle routes. OHV travel will be prohibited on wet soils and on slopes greater than 25 percent if damage to vegetation, soils, or water quality would result. OHV designations have been made for all public lands in the FO; however, only the Middle Fork recreation area and the Weston Hills recreation area have been signed. Fortification Creek and Gardner Mountain are Wilderness Study Areas (WSAs) and are closed to OHV use.

Signs indicating OHV designations as limited use, open, or closed have been placed over a small portion of the BLM-administered public lands. The Middle Fork and Weston Hills areas are the only limited OHV use areas that have been signed to reflect the actual designations. On areas designated as limited to "designated" roads and trails, OHV travel will be restricted to marked roads. Until actual roads and trails are marked on the ground, travel will be restricted to existing roads and trails. Over-the-snow vehicles will be subject to the same requirements and limitations as all other vehicles.

Effects Analysis

Much of the Buffalo FO is not subject to open OHV use. OHV use in the FO is best characterized as limited in frequency and intensity. OHV management and use in the Buffalo FO is not expected to result in detrimental effects to bald eagle behavior or nesting, communal winter roosting, or foraging habitats.

Determination

Implementation of OHV management actions, as presented in the Buffalo RMP (2001), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that effects from OHV use will result in take.

Paleontology Resources Management

Management Actions

The objective of paleontology resources management is to manage paleontological resources that are part of the BLM-administered public land surface estate for their informational, educational, scientific, public, and recreational uses. Using the land for scientific purposes such as paleontological exploration is authorized through a permit system. A paleontological collecting permit is required before collecting any fossil vertebrates, significant fossil invertebrates, and plants on BLM-administered public lands. Potential effects on paleontological resources on BLM-administered public land will be considered in site-specific environmental analyses before authorizing surface-disturbing activities.

Effects Analysis

Actions associated with paleontology resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with paleontology resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Disturbance or destruction of nesting and communal winter roosting sites is not expected because surface disturbing activities are restricted within these habitats. Disturbance and destruction of terrestrial foraging habitats may occur.

Determination

Implementation of paleontology resource management actions, as presented in the Buffalo RMP (2001), is **not likely to adversely affect** the bald eagle due to **discountable effects**. This determination is based on the limited paleontological resources and the subsequent limited potential for related actions to harass or displace bald eagles.

Recreation Resources Management

Management Actions

The objective of recreation resources management is to provide outdoor recreational opportunities on lands administered by BLM while providing for resource protection, visitor services, and the health and safety of public land visitors. Casual use of BLM-administered public land for hiking, bicycling, hunting, fishing, and similar uses are allowed without charge. Camping is limited to 14 days at any one spot. Based on data collected in 1990, approximately 3 percent of the recreational visitor use days in the Buffalo FO occurred on lands administered by BLM. The overall demand for recreation in the FO is expected to increase approximately 5 percent every five years for most recreational activities. Between 1985 and 1995, 225 permits were issued for recreational activities including as big game outfitting, mountain bike races, and museum fundraisers. In 1990, 30 permits were issued. Approximately 35 permits may be issued each year, through the year 2005.

Effects Analysis

Actions associated with recreational management and uses have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation resource management actions, as presented in the Buffalo RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to cause bald eagle harassment, displacement and to disturb or destroy suitable nesting and communal winter roosting habitats.

Soil Resources Management

Management Actions

The objective for soil resources management is to maintain soil cover and productivity and provide for improvement in areas where soil productivity may be below potential on surface lands administered by BLM. Timber harvest activities will be limited to slopes of 45 percent or less to protect the water quality and to keep soil from eroding. Most of the commercial forestlands in the FO are on slopes under 45 percent (30,950 acres); 12,450 acres of commercial forestland are on slopes greater than 45 percent. Surface occupancy and disturbance will not be allowed on slopes of 25 percent or more (281,100 acres). ORV travel will be prohibited on wet soils and on slopes greater than 25 percent if unnecessary damage to vegetation, soils, or water quality would result. Roads and trails will be closed and reclaimed if they are heavily eroded, washed out, or if access roads in better condition are available. Head seepages on all spring developments on lands administered by BLM will be fenced. No surface disturbance or occupancy will be allowed in areas of severe erosion between March 1 and June 15. As they are needed, conservation practices and state of Wyoming best management practices will be applied to surface-disturbing activities.

Effects Analysis

Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may maintain or improve the condition of some habitats and therefore may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Determination

Implementation of soil resource management actions, as presented in the Buffalo RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles.

Threatened, Endangered, Candidate, and Sensitive Species Protection

Management Actions

The management objectives of threatened, endangered, candidate, and sensitive species protection are to:

1. Maintain biological diversity of plant and animal species;
2. Support WGFD strategic plan population objective levels to the extent practical and o the extent consistent with BLM multiple use management requirements;
3. Maintain, and where possible, improve forage production and quality of rangelands, fisheries, and wildlife habitat; and
4. To the extent possible, provide habitat for threatened and endangered and special status plant and animal species on all public lands in compliance with the Endangered Species Act (ESA) and approved recovery plans.

Known populations of threatened and endangered species will be protected, as mandated by law. The USFWS is the only agency that can list a species as endangered, threatened, or candidate. Surveys conducted by BLM, the WGFD, and the USFWS suggest that bald eagle numbers are increasing in the FO. Surface disturbance or occupancy will not be allowed with ½ mile of bald eagle communal winter roost sites between November 1 and March 30. Documented nests, communal winter roosts, cottonwood trees, and other potential critical habitats related to hunting and concentration areas for bald eagles will be protected.

Other management actions are included in this section that pertain to peregrine falcon, black-footed ferret, whooping crane, and sensitive plant species. Refer to the Buffalo RMP (2001) for a complete description of actions specific to these species.

Effects Analysis

Management actions associated with threatened, endangered, and candidate species protection will not result in detrimental impacts to bald eagle behavior or their habitats. These actions may also result in positive effects to bald eagles by limiting harassment and disturbance to nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the threatened, endangered, and candidate species management actions, as presented in the Buffalo RMP (2001), is **not likely to adversely affect** the bald eagle, due to **insignificant effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and minimize adverse effects to nesting, communal winter roosting, and foraging habitats.

Vegetation Resource Management

Management Actions

The objectives of vegetation resource management are to maintain or improve the diversity of plant communities to support timber production, livestock needs, wildlife habitat, watershed protection, and acceptable visual resources; and reduce the spread of noxious weeds. Vegetation treatments, including timber harvesting and sagebrush spraying or burning, will be designed to meet overall resource management objectives and will be consistent with the policy to protect or improve biodiversity and water quality. Prescribed burns will be conducted to support vegetation and wildlife habitat objectives. Fire is used as a management tool to improve range forage production, wildlife habitat, timber stand improvement, sale debris disposal, and to reduce hazardous fuel buildup. In cooperation with county weed and pest districts, cooperative integrated weed control programs are being implemented on public land in conjunction with control work on adjoining deeded and state lands. Trees will be planted on timber harvest areas that fail to regenerate naturally to minimum stocking levels within five years after completing harvest and rehabilitation activities. Precommercial tree thinning will be initiated on overstocked releasable seedling and sapling size stands.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included in the RMP for this resource.

Effects Analysis

Actions associated with vegetation management including increased human presence and use of machinery or fire to implement management actions may detrimentally influence bald eagle behavior. The potential for these effects is low and the intensity is not expected to have lasting detrimental effects to bald eagle behavior. Terrestrial foraging habitats are most likely to experience vegetation management actions. These habitats are diverse and widespread throughout the FO and therefore isolated disturbances resulting from vegetation management practices are not expected to limit the availability or quality of foraging habitats. Implementation of vegetation management actions are likely to result in positive effects to bald eagle habitats, particularly foraging habitats, such as the creation or expansion of habitats suitable to potential terrestrial prey species.

Determination

Implementation of the vegetation management actions, as presented in the Buffalo RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects. Results of vegetation management may benefit the bald eagle by creating or supplementing habitats that support bald eagle prey species.

Visual Resource Management

Management Actions

The objective of visual resource management is to maintain or improve scenic values and visual quality, and establish visual resource management priorities in conjunction with other resource values. Visual resources are managed in accordance with objectives for visual resource management (VRM) classes that have been assigned to the FO. No activity or occupancy is allowed within 200 feet of the edge of state and federal highways. Facilities or structures such as power lines, oil wells, and storage tanks are required to be screened, painted, and designed to blend with the surrounding landscape, except where safety indicates otherwise. Any facilities or structures proposed in or near WSAs will be designed so as not to impair wilderness suitability.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included in the RMP for this resource.

Effects Analysis

Actions associated with visual resource management will not directly impact bald eagle behavior or habitats. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be suitable for bald eagles or their prey.

Determination

Implementation of visual management actions, as presented in the Buffalo RMP (2001), is **not likely to adversely affect** the bald eagle, due to **insignificant effects.** This determination is based on the potential that implementation of these actions may preserve or minimize disturbance to habitats that may be suitable to bald eagles or their prey.

Watershed and Water Resource Management

Management Actions

The objective of watershed and water resources management is to maintain or improve surface and groundwater quality consistent with existing and anticipated uses and applicable state and federal water quality standards; provide for availability of water to facilitate authorized uses, and to minimize harmful consequences of erosion and surface runoff from BLM-administered public land. No surface disturbance will be allowed within 500 feet of any spring, reservoir, water well, or perennial stream unless waived by the authorized officer. Pollution prevention plans are developed for actions that qualify under the Wyoming Storm Water Discharge Program to reduce the amount of non-point pollution entering waterways. The rights to water-related projects on public lands will be filed with the Wyoming state engineer's office in order to obtain valid water rights.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included in the RMP for this resource.

Effects Analysis

Actions associated with watershed management will not negatively impact bald eagle behavior or their nesting, communal winter roosting, or foraging habitats. These management actions will likely benefit bald eagles by maintaining or improving habitat and foraging areas associated with aquatic systems.

Determination

Implementation of watershed and water resources management actions, as presented in the Buffalo RMP (2001), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions may improve habitats associated with aquatic systems that may be suitable to bald eagles or their prey.

Wildlife Habitat Management

Management Actions

The objectives of wildlife habitat management are to:

1. Maintain biological diversity of plant and animal species;
2. Support WGFD strategic plan population objective levels to the extent practical and to the extent consistent with BLM multiple use management requirements;
3. Maintain, and where possible, improve forage production and quality of rangelands, fisheries, and wildlife habitat; and
4. To the extent possible, provide habitat for threatened and endangered and special status plant and animal species on all public lands in compliance with the Endangered Species Act (ESA) and approved recovery plans.

Big game and fisheries management levels identified in the WGFD 1990-1995 strategic plan are supported by the BLM. BLM cooperates with the WGFD in introducing or reintroducing native and acceptable nonnative wildlife and fish within the FO where potential habitat exists. Accommodating changes to WGFD planning objectives are considered based on habitat capability and availability. Wildlife habitat is monitored and population adjustments and habitat improvements are recommended to the WGFD, as appropriate. BLM works with the USFWS and the WGFD in evaluating and designating critical habitat for threatened and endangered species on

public land. Specific management goals and actions are for several wildlife groups and habitats including: big game ranges, wetland and riparian areas, elk habitat, raptor and grouse breeding areas, and animal and insect damage control. Surface occupancy or disturbance is not allowed on approximately 6,000 acres in the study area to protect important raptor, sharp-tail grouse, and sage grouse habitat, including bald eagle habitats. Surface disturbance or occupancy is not allowed within ½ mile of communal winter roosts for bald eagles from November 1 through March 30. Surface disturbance will not be allowed around "biologic" buffer zones delineated for eagle roosts from November 1 through March 30.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts depend on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife habitat management actions, as presented in the Buffalo RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Wild and Scenic Rivers

Management Actions

The objectives of wild and scenic river management for public lands administered by BLM that meet the wild and scenic rivers (WSR) suitability factors are to maintain or enhance their outstandingly remarkable values and wild and scenic rivers classifications until Congress considers them for possible designation. The Middle Fork of the Powder River meets the WSR suitability factors and should be managed to maintain or enhance the unique qualities of this river. The outstanding scenic, fisheries, wildlife, historic, recreational, and cultural values associated with the BLM-administered public lands within the review segment make this a uniquely diverse waterway segment in the region. Within the review segment of the Middle Fork of the Powder River, fish populations and habitat are of particularly high value.

In keeping with the strong local opposition to the WSR concept in the FO in general, and in keeping with the Wyoming BLM WSR policy statement (June 1993), the BLM will not make or escalate any recommendations for WSR designation of the BLM administered public lands within the Middle Fork of the Powder River review segment. Future Congressional consideration for WSR designation could still occur should Congress decide to do so at its volition, if public opinion should change to support such consideration, or if such a recommendation to Congress should be sponsored and supported by Wyoming state government or some other appropriate entity. In the interim, the BLM will continue its existing management. Under this management, wild and scenic river characteristics were, and will be maintained.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included in the RMP for this resource.

Effects Analysis

Management actions proposed for portions of the Middle Fork of the Powder River are not expected to detrimentally influence bald eagle behavior or impact suitable nesting, communal winter roosting, and foraging habitats. These actions will likely result in positive effects by maintaining or enhancing habitats suitable for bald eagles and their prey.

Determination

Implementation of wild and scenic rivers management actions, as presented in the Buffalo RMP (2001), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions may maintain or improve habitats used by bald eagles and their prey.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Buffalo RMP management actions.

TABLE 2: SUMMARY OF DETERMINATIONS FOR THE BUFFALO RMP

Resource	Determination
Air Quality	Not likely to adversely affect, due to insignificant effects
Cultural Resources	Likely to adversely affect
Fire	Likely to adversely affect
Forest	Likely to adversely affect
Geology and Minerals	Likely to adversely affect
Hazardous Materials	Not likely to adversely affect, due to discountable effects
Lands and Realty	Likely to adversely affect
Livestock Grazing	Likely to adversely affect
Off-Highway Vehicles	Not likely to adversely affect, due to discountable effects
Paleontology	Not likely to adversely affect, due to discountable effects
Recreation	Likely to adversely affect
Soils	Likely to adversely affect
Threatened, Endangered, and Candidate Species	Not likely to adversely affect, due to insignificant effects
Vegetation	Likely to adversely affect
Visual Resources	Not likely to adversely affect, due to insignificant effects
Watershed and Water	Not likely to adversely affect, due to beneficial effects
Wildlife Habitat	Likely to adversely affect
Wild and Scenic Rivers	Not likely to adversely affect, due to beneficial effects

Cumulative Effects

Cumulative effects include those of future State, tribal, local, or private actions that are reasonably certain to occur in the Buffalo FO. Oil and gas development would occur on a mix of federal, state, private, and on split estate lands. Additional oil and gas extraction (coalbed methane [CBM] and non-CBM) may occur at a later date within the FO beyond the level of development currently considered. Activities other than oil and gas extraction contributing to cumulative effects in the FO include: coal mining; uranium mining; sand, gravel, and scoria mining; ranching; agriculture; road and railroad construction, and rural and urban housing development.

On-going coal mining activities within the Buffalo FO disturb surface lands at a rate of approximately 2,000 acres per year, with 1,850 acres reclaimed on an annual basis. At present, coal mining has disturbed approximately 54,000 acres, while 20,200 acres have been reclaimed to State of Wyoming standards. An unknown portion of disturbed coal mining area is currently undergoing reclamation, but has not yet met the Wyoming standards. A similar level of both new disturbance and reclamation is expected in the near future.

Uranium mining within the Buffalo FO has resulted in the disturbance of approximately 4,400 acres, while sand, gravel, and scoria mining has resulted in the disturbance of approximately 1,200 acres. Agriculture has resulted in impacts to approximately 113,643 acres of lands formally occupied by native vegetation that served as suitable habitat for wildlife.

Urban development within the Buffalo FO has resulted in the loss of approximately 4,362 acres of native vegetation as suitable wildlife habitat. A minor amount of new rural and urban development is expected in the foreseeable future, but no estimate of the amount or types of vegetation disturbance has yet been made. Cumulative impacts to vegetation from roads, railroads, and rural development are anticipated but have not been estimated.

CASPER FIELD OFFICE

The *Record of Decision for the Resource Management Plan/Final Environmental Impact Statement* was signed in July 1985 and applies to the Casper Field Office (FO) in Converse, Goshen, Natrona, and Platte Counties, Wyoming. The Platte River RMP (BLM 1985) includes management prescriptions defined for 14 resource management units (RMUs) that focus chiefly on the resource values of the RMU. All management prescriptions applied in the RMUs are based on established planning decisions presented in the Platte River RMP.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Casper FO. It also analyzes the effects of past and ongoing human activities (including Federal, State, tribal, local, and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Eleven bald eagle nests are known to occur within the Casper FO (**Figure 7**) (Fitzgerald 2002; Redder 2002; Van Fleet 2002;). Observations of brooding adults, nestlings, and fledglings are indicators of nest activity. None of these nests occur on lands administered by BLM. These nests occur in riparian habitats that are associated with the North Platte River.

Livestock grazing and irrigated and dryland pasture are the primary land uses near these nests. None of the land within a 2-mile radius of these nests is part of a BLM grazing allotment, however. These past and current practices have had little effect on the nesting bald eagles or their habitats, as evidenced by the active status of these nests in recent years.

Communal Winter Roosting Habitat

As reported in the *Platte River Resource Area and Jackson Canyon ACEC Habitat Management Plan* (BLM 1992) and confirmed by the Casper FO biologist (Fitzgerald 2002), 11 communal winter roosting areas are known to occur within the FO (**Figure 7**). These communal winter roosting areas are described in the following text.

The Big Sulfur Springs Roost occupies approximately 5 square miles in the southernmost foothills of the South Bighorn Mountains of the South Bighorns RMU. The federal lands within the roost area occur as a large single block of approximately 3 square miles; the remainder of the roost occurs on state and privately owned lands. Access to the roost is available via public routes that terminate less than 1 mile from the boundary of the roost (BLM 1992). Livestock grazing and recreation, including hunting, are the primary land uses near the Big Sulfur Springs Roost. Current livestock grazing practices within this RMU and roost area are not likely to affect wintering bald eagles or the roosting habitats, as evidenced by the continued use of this roost. Big game hunting seasons occur before wintering bald eagles arrive at the roost; thus, the potential for hunting and associated human presence to affect communal winter roosting bald eagles is low.

Figure 7: Casper Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

The Pine Mountain West and East wintering roost sites lie within the Pine Mountain-Goldeneye RMU. The west roost occupies nearly 7 square miles, and the east roost occupies 6 square miles of coniferous forest (ponderosa pine, limber pine, and juniper). Drainages in the immediate vicinity are typically dry except after rainfall or during snowmelt. Most of the land within these roosts is administered by the BLM, with the remainder owned by the State and private entities. Access to these roosts is generally via several established roadways and two-track trails that cross federal, state, and private lands. Public access is not available to the Pine Mountain East roost. However, because of a recent land exchange, public access is available to the Pine Mountain West roost. Local topographical relief is varied, which further limits public access to many areas of these roosts (BLM 1992).

Livestock grazing and wildlife use are the major designated land uses within these roosts. In addition, activities associated with oil and gas exploration are authorized for lands within and adjacent to the roost. Current practices associated with these land uses have not had any noticeable effect on wintering bald eagles or their roosting habitats. Current oil and gas exploration companies are obligated to adhere to specific surface occupancy and seasonal restrictions to minimize effects to wintering bald eagles and their roosts. The sustained use of these roosts by wintering bald eagles is a strong indicator that these restrictions have been effective.

A single roost, the Coal Creek Roost, is known to occur within the North Platte River RMU. The Coal Creek Roost occupies nearly 2 square miles along the North Platte River, 15 miles east of Casper, Wyoming. Much of the surface lands within the roost are administered by the state or private entities, with only two small federal parcels (BLM 1992). U.S. Highway 20-26 and an active Burlington Northern rail line pass through the roost.

Land uses within and adjacent to the roost are varied and include recreation (hunting and boating) on the North Platte River, livestock grazing, and oil and gas exploration and development. Activities associated with these land uses and disturbances related to the highway and rail line have apparently had little effect on the wintering bald eagles or their use of this roost, as evidenced by the continued use of this area.

A single roost, Stinking Creek Roost, is known to occur within the Bates Hole RMU. This communal winter roost is located in a riparian area bordered by rolling hills and incised ephemeral streams and drainages. Stinking Creek is an ephemeral stream in this locale that drains into Bates Creek, which is a tributary of the North Platte River. This designated roost occupies approximately 3 square miles of lands administered by the BLM, State, and private landowners. State Highway 487 is near this roost and provides legal access to the area of the roost. Despite the proximity of this major highway to the roost, legal access is limited by the lack of secondary roads from Highway 487 and the intervening private lands. Access to the roost via off-trail routes is unlikely because of the steep and severely eroded banks in this vicinity (BLM 1992).

Livestock grazing is the dominant land use in this roost area. Part of the roost is included in a trail used seasonally to move livestock from winter to summer pastures. No oil and gas leases are authorized in the roost. Wildlife common to the roost area include mule and white-tailed deer, pronghorn antelope, turkey, sage grouse, chukar, cottontail rabbit, white-tailed prairie dog, red-tailed hawk, Swainson's hawk, ferruginous hawk, bobcat, coyote, and fox. Sage grouse leks and nesting areas are also included in the roost area. The roost is also within crucial winter range for pronghorn antelope (BLM 1992). The continued use of this roost is evidence that current human activities have had little or no effect to wintering bald eagles or the habitats in the roost.

The Jackson Canyon Roost and Little Red Creek Roost are known to occur within the Casper Mountain, Muddy Mountain, and Jackson Canyon RMUs. The *Natrona Management Framework Plan* (BLM 1980) established the Jackson Canyon Area of Critical Environmental Concern (ACEC) with the intent of protecting these known roosting sites. Habitat within the ACEC is typical of mountainous topography, with steep, partially wooded slopes, escarpments, and deeply incised drainages and canyons. The ACEC is a combination of public and private lands. Several of the public parcels are leased or patented under the Recreation and Public Purposes (R&PP) Act. These lands are excluded from mining operations until the current lease is cancelled or the title reverts to the U.S. government. Most of the privately owned lands are subject to conservation easements, and the state lands are designated as a rare and uncommon area by the Wyoming Environmental Council.

Land use within this ACEC is dominated by recreation including snowmobiling, cross-country skiing, hiking, camping, archery, spelunking, and hunting. Several campsites in the ACEC receive annual use. Closed gates and barriers to trails have helped enforce restrictions of off-road vehicle use during the winter. Winter use by hikers, sightseers, and skiers is possible but is typically limited by the rugged terrain and the trail barriers in place. Elk hunting seasons in this area typically last from November 1 to November 20. Most other hunting seasons end before the ACEC roads close on November 1. The hunting seasons for blue and ruffed grouse are open until November 30. During these seasons, hunters may access the roost area on foot. Because of the distance of the roost from access points and the rugged terrain, it is unlikely that hunters would enter this area and disturb the roost site or be near the roost during nighttime. Potential impacts from recreational uses have not had any apparent important effects, as indicated by the continued use of this roost by wintering bald eagles.

The North Fork Cheyenne River Roost occurs within the Ross RMU. This roost is located on a ridge that separates the Missouri and Yellowstone River drainages. The area is characterized by deeply incised, branch-like drainages associated with steep hills and ridges. The roost is drained by the North Fork of the Cheyenne River that flows eastward to the Cheyenne River. Federal and private lands are included in the approximately 4-square-mile roost area. The federal lands occur as a single block and account for about half of the roost. All of the mineral estate within the roost, except for 40 acres, is federally owned. Several roads and trails pass near the roost; however, legal access to the roost is not available. Land uses in the area of the roost are primarily livestock grazing and wildlife habitat management. Oil and gas development is active within and south of the roost (BLM 1992). These uses have apparently had little effect on wintering bald eagles or this habitat, as indicated by the continued use of this roost.

Four communal winter roosts — Little Deer Creek, Box Elder, Miller Hills, and Pine Ridge — are known to occur within the Remaining Platte River Resource RMU. The Little Deer Creek Roost is located in Little Deer Creek Canyon in southwestern Converse County, approximately 8 miles southwest of Glenrock, Wyoming. The canyon is in mountainous terrain with near-vertical canyon walls, steep hillsides, and deeply incised drainages. The vertical relief in the canyon is 400 to 500 feet from the canyon floor to the top of the escarpment. Little Deer Creek is a perennial stream that flows into Deer Creek, which eventually flows to the Platte River. The roost occupies approximately 4 square miles of BLM-administered, state, and private lands. Federal lands within the roost area occur as two separate parcels but are connected by a large block of state lands. Approximately half of the roost is on privately owned lands. Livestock grazing and wildlife habitat are the primary uses of this roost area. No authorizations, other than grazing, have

been issued for the federal lands. Cattle graze the public lands in the roost area year-round. There are no valid mining records within the roost. No legal access is available to the Little Deer Creek Roost. The absence of roads in the area and the steep, rugged topography nearly eliminate access to the roost.

Box Elder Creek Roost is located in Box Elder Canyon in southwestern Converse County, approximately 11 miles south of Glenrock, Wyoming. This canyon is located on the northern extreme of the Laramie Mountain Range. The canyon is narrow and steeply incised, rising 500 to 700 feet from the floor of the canyon to the top of the escarpment. Box Elder Creek, a perennial stream, is the primary drainage for the roost area, flowing into the North Platte River. The roost occupies approximately 6 square miles of land that lies mostly within Converse County, designated as Box Elder Park. Less than half a square mile of federal land is present in the roost area. Legal and physical access is available to the roost, but the rugged terrain associated with the canyon restricts use of vehicles. Box Elder Park occupies most of the roost. Only a few facilities are associated with this park; most of the area remains in its natural condition. The county leases the lands within the park for grazing. In 1978, the county and Wyoming Game and Fish Department (WGFD) agreed that administration and future use of the canyon would be directed to prevent conflicts between human use and bald eagles and to maintain the environmental qualities required for bald eagles. Box Elder Creek is perennial and supports several species of trout. To the north of the roost is crucial winter range for pronghorn antelope. The potential for development of oil and gas is low based on the unfavorable geological conditions.

Miller Hills Roost is located in northeastern Converse County, approximately 5 miles south of the town Dull Center. Miller Hills is a northwest-trending ridgeline. The ridgeline is deeply incised by highly branched drainages and steep slopes. This roost occupies approximately 13 square miles. All of the federal land surface, about 5 square miles within this area, is in the Thunder Basin National Grasslands and is managed by the USFS. BLM administers the federal mineral rights in the roost area in cooperation with the USFS. Several existing roads transverse the area of the roost; however, legal access is not available to the roost. Livestock grazing and wildlife habitat are the primary USFS management uses in the roost area. No BLM-administered lands are within the roost. The USFS administers grazing allotments in the roost area for sheep, cattle, and horses.

The Pine Ridge Roost is located in the northeastern Natrona County and northwestern Converse County. This roost occupies approximately 6 square miles of land, with about 5 square miles on private property and the remainder on BLM-administered lands. Although these lands are intermingled, they occur as large, continuous blocks within the roost. Livestock grazing and wildlife habitat are the primary uses in this roost area. The right of way for an oil pipeline is a prominent man-made feature within the area designated as the roost. No active mining claims are within the roost. Previous geological testing in the roost area for natural resources was negative, indicating a low potential for oil and gas resources. Three different grazing allotments occur within the roost area. Although they are licensed to graze year round, the nature of the terrain probably restricts substantial winter grazing.

Foraging Habitat

Several bald eagle feeding concentration areas have been identified along the North Platte River (Map 19 of the Bald Eagle HMP/ACEC Plan) within the North Platte River RMU. No concentrated foraging habitats, including lakes or rivers that remain ice-free winter-long or reliable sources of carrion (i.e., roadkill, winter mortality, or livestock feed lots and stockyards) are known to occur within the following RMUs: South Bighorns, Pine Mountain Goldeneye,

Fremont Canyon, Salt Creek, Casper Sand Dunes, Casper Mountain, Muddy Mountain, and Jackson Canyon, Bates Hole, Laramie Range Foothills, Ross, Muleshoe Flats and Richeau Hills, Rawhide, Table Mountain, Spring/Bump, Sullivan, and the Remaining Platte River Resource Area RMU.

Within the Oregon-Mormon Trail RMU, bald eagles that roost at the Coal Creek Roost rely on two major feeding areas: the North Platte River for fish and waterfowl, and the nearby rangelands for carrion from big game and livestock. Most land along the North Platte River is privately owned with several exceptions, including BLM access points, WGFD access points for fishing, and some state school sections. Recreation is the primary use on federal lands along the river. Private and state lands support recreation as well as several agricultural uses, including irrigated crops, irrigated and dryland pasture, and livestock feeding. The continued use of the Coal Creek Roost and nearby foraging areas by wintering bald eagles is evidence that these ongoing land uses have had little effect on wintering bald eagles or their habitats.

General foraging areas for wintering bald eagles include ice-free bodies of water that support sufficient populations of fish or waterfowl. These areas also include most open, upland habitats that support prey populations, adequate big game winter ranges, and cattle and sheep grazing allotments. General foraging habitats occur throughout the Casper FO and Wyoming. Some past activities such as oil and gas development and recreation may have altered or destroyed some suitable general foraging habitats. Still, these losses have typically been localized and are often offset by mitigation measures required or by the availability of otherwise suitable general foraging habitats in the FO.

Existing Conservation Measures

The following section presents measures included in the Platte River Resource Area RMP that may directly or indirectly minimize impacts to the bald eagle (BLM 1985b, BLM 1985c).

(a) “To protect important raptor and(or) sage and sharp-tailed grouse nesting habitat, activities or surface use will not be allowed from February 1 to July 31 within certain areas encompassed by the authorization. The same criteria apply to defined raptor and game bird winter concentration areas from November 15 to April 30” (BLM 1985b, p. 9).

(b) “No activities or surface use will be allowed on that portion of the authorization area identified within (legal description) for the purpose of protecting (e.g., sage/sharp-tailed grouse breeding grounds, and(or) other species/activities) habitat” (BLM 1985b, p. 9).

(c) “Portions of the authorized use area legally described as (legal description) are known or suspected to be essential habitat for bald eagle, which is a threatened species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service (USFWS) guidelines to verify the presence or absence of this species. In the event that bald eagle occurrence is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications)” (BLM 1985b, p. 9).

(d) “No surface occupancy will be allowed on the following described lands (legal subdivision/area) because of (resource value) – (c) Special management areas (e.g., ACEC, known threatened and endangered species habitat, wild and scenic rivers)” (BLM 1985b, p. 10).

(e) "Mineral materials such as sand and gravel, moss rock, flagstone, and scoria will be available on demand for sale and for free use, subject to conditions and stipulations developed case by case, so that efficient use can be made of the mineral resource. Materials in all low, moderate, and high potential areas are available except as follows: Those within bald eagle roost areas" (BLM 1985b, p. 11).

(f) "All federal lands within or adjacent to roosts will be designated priority full suppression zones. Priority full suppression can include suppression of wildfires with all available resources, including vehicle use on existing roads and trails, air support, or construction of roads and grading of firebreaks using heavy equipment. To the extent possible, trees will not be cut within 200 yards of the roosts during fire suppression" (BLM 1985b, p. 11).

(g) "For the Medicine Bow HMP [habitat management plan] (about 50,000 acres) we will control beaver in coordination with WGFD where riparian vegetation has been destroyed, develop springs and seeps to provide year-round water, temporarily exclude livestock from riparian areas as needed, and establish cottonwood perch trees in bald eagle winter habitat" (BLM 1985b, p.28).

(h) "No surface development will be permitted on the winter roosting areas for bald eagles - a total of 17,684 acres. No disturbance to trees or improvement in roads or legal access will be allowed in these bald eagle winter ranges except as needed for fire suppression or for control of pine beetle infestations. Pine beetle control efforts within bald eagle winter habitat will be conducted only from April 1 to October 31" (BLM 1985b, p. 29-30).

(i) For the Cole Creek Roost only:
"The public lands in this roost will be available for disposal to entities that will manage the land to maintain the resource values present, in accordance with RMP decisions identifying the parcel as one of ten 'downstream' parcels available for disposal. Acquisition of lands or access easements will not be pursued. Neither legal nor improved road access would be provided to the North Platte River in this bald eagle roost" (BLM 1985b, BLM 1985c).

(j) For all roosts including the Cole Creek Roost:
"No new roads or other surface developments will be authorized in the bald eagle winter roosting areas. No disturbance to trees, or improvements of roads or legal access will be allowed except as needed for fire suppression or for bald eagle habitat improvement or maintenance. Habitat improvements or maintenance efforts will not be allowed from November 1 through March 31. "Continued use or improvement (i.e., upgrading) of existing roads in bald eagle roost areas from November 1 through March 31 will be analyzed on a case-by-case basis in accordance with the Endangered Species Act" (BLM 1985b, BLM 1985c).

(k) "All federal lands within or adjacent to roosts will be designated priority full suppression zones. Priority full suppression can include suppression of wildfires with all available resources, including vehicle use on existing roads and trails, air support, or construction of roads and grading of firebreaks using heavy equipment. To the extent possible, trees will not be cut within 200 yards of the roosts during fire suppression" (BLM 1985b, p. 11).

(l) "The BLM will pursue cooperative agreements with private landowners and other fire and land management agencies so that an initial attack plan may be established. That plan would be used for an escaped fire situation analysis plan when needed. These plans will include identification of areas where grading of roads and/or firebreaks are most needed for fire suppression, and will identify those areas where protection from wildfires is most critical. A draft initial attack plan will

be completed by June 30, 1993. Prescribed burning will be implemented where necessary to meet range and timber resource management objectives, but it would not be allowed from November 1 through March 31" (BLM 1985b, BLM 1985c).

(m) "All BLM-administered lands and mineral estate would remain open to oil and gas leasing and development subject to the stipulation that no surface occupancy or development within the roost areas will be allowed at any time. The no surface occupancy stipulation will apply to maintenance and operation of producing wells, and modifications to this limitation will not be approved (NSO). The no surface occupancy stipulation, unless currently a condition of an existing lease or authorization, does not apply to maintenance and operation of existing lease facilities. All BLM-administered lands and mineral estate in bald eagle roost areas will be withdrawn from location and appropriation under the mining laws. Mineral materials will not be available for disposal" (BLM 1985b, BLM 1985c).

(n) "On public lands, surface development will be prohibited on an area from ¼ to 1 mile of known or discovered nests. The specific distance and dimensions of the area on which surface development will be prohibited will be determined on a case-by-case basis after consultation with the USFWS in accordance with the Endangered Species Act" (BLM 1985b, BLM 1985c).

(o) "The BLM will attempt to acquire riverfront land along the North Platte River upstream of Casper and dispose of BLM-administered lands along the North Platte River downstream of Casper. The downstream lands will be available for disposal to entities that will manage the land to maintain the resource values present" (BLM 1985b, BLM 1985c).

(p) "Surface development will be prohibited within ¼ mile of the North Platte River on a year-round basis, except as specified in the following paragraph (NSO). This limitation will not apply to recreation or habitat improvement projects. In addition, mineral material or other surface development on specific parcels of land (HMP Map 19, page 109) within ½ mile of the river will not be allowed from November 1 through March 31 (TLS). Modifications to the seasonal limitation, in any year, may be approved in writing by the Authorized Officer. The seasonal limitation does not apply to maintenance and operation of existing or producing mineral facilities" (BLM 1985b, BLM 1985c).

(q) "On approximately 240 acres of federal mineral estate located in the NE¼, and W½SE¼, of section 11, T. 31 N., R. 82 W., mineral material or other surface development will be allowed within ¼ mile of the North Platte River, subject to the restriction that no surface occupancy will be allowed from November 1 through March 31" (BLM 1985b, BLM 1985c).

(r) "The BLM will improve bald eagle feeding habitat along the river upstream of Casper by planting cottonwood trees or by placing suitable structures along the river for use by bald eagles during feeding activity" (BLM 1985b, BLM 1985c).

(s) "No bald eagle seasonal or occupancy restrictions, except as may be identified on a site-specific basis to protect wildlife or other resource values present, will be applied to rangelands feeding areas" (BLM 1985b, BLM 1985c).

(t) "The BLM will develop a public education program for bald eagle feeding areas along the North Platte River and on public rangelands. Under the program, information will be distributed to landowners, grazing lessees, and the general public. Information will be designed to identify ways land users can avoid hazards to bald eagles, and benefit bald eagles using the feeding areas where possible" (BLM 1985b, BLM 1985c).

(u) "Actions proposed on public lands in known or other discovered bald eagle flyways will be analyzed on a case-by-case basis. Consultation with the USFWS in accordance with the Endangered Species Act will be initiated if required. On approximately 2,040 acres of public lands in the Emigrant Gap flyway (RMP Overlay Area #73), located in T. 33 N., R. 81 W., sections 14, 15, 23, 24, 25, and 26, new power distribution/transmission lines will have to be designed to reduce hazards to raptors from collisions with the proposed facilities in order to be authorized. Other proposed development or land use proposals will be subject to analysis on a case-by-case basis, with consultation with the USFWS initiated if required" (BLM 1985b, BLM 1985c).

(v) "Where surface development proposals threaten the active nests of high federal or state interest raptor species, the PRRA will designate a suitable biologic buffer zone around the nest or nests where no surface development is permitted during the nesting season. Species identified jointly by the BLM, the U.S. Fish and Wildlife Service, and the Wyoming Game and Fish Department as high interest species are bald eagle, golden eagle, osprey, peregrine falcon, prairie falcon, merlin, ferruginous hawk, Cooper's hawk, Swainson's hawk, burrowing owl, barn owl, great-horned owl, short-eared owl, long-eared owl, eastern screech-owl, northern saw-whet owl, northern goshawk, sharp-shinned hawk, northern harrier, and red-tailed hawk. An active nest is defined as one that has been used at least once during the previous three years. The size of the buffer zone will be determined case by case by the BLM Authorized Officer, who will consider topography and raptor prey habitat surrounding the nest site. Usually the buffer zone will be ¼ to ½ mile. BLM personnel will determine buffer zones for active eagle nests and for cliff nesting sites of falcons in consultation with the U.S. Fish and Wildlife Service" (BLM 1985b, p.30).

(w) "The general dates of restriction for all species are February 1 through July 31 (or until the young have fledged). If needed, specific dates for particular species will be defined at the time of a proposed action, and will be based upon the most recent nesting data" (BLM 1985b, BLM 1985c).

(x) "The Jackson Canyon ACEC contains 3,600 federal surface acres and 11,150 federal mineral acres, for a total of 13,760 acres in the ACEC. We will control pine beetle infestations in this area through a more active forest management program, designate bald eagle roosts as priority full suppression areas for wildfire control, evaluate whether or not oil and gas leases should be renewed, and incorporate fire suppression as part of the HMP. We also will install signs and road closures and monitor conflicts between recreation use and eagles. A withdrawal will be recommended on 3,600 acres of federal mineral estate in bald eagle roost areas. No rights of way will be permitted in this ACEC. ORV use will be allowed only on designated roads and only from April 1 through October 31. There will be no increase or improvement in roads or legal access. Administrative access may be necessary to maintain bald eagle habitat. The ACEC will be managed in accordance with the ACEC Wildlife Habitat Management plan. Fire suppression will be conducted as needed. Beetle control will be conducted only between April 1 and October 31" (BLM 1985b, p.31).

Analysis of Proposed Management Actions and Effects

The Platte River RMP (BLM 1985b) describes the planning decisions for all management decisions on land use that apply to the 14 RMUs. All specific actions within each RMU are based on the goals and objectives established in the planning decisions. The following text briefly summarizes the planning decisions for each resource and any associated mitigation measures that

specifically apply to the bald eagle. In 1997, the RMP was amended to include a bald eagle habitat management plan (HMP). This HMP was intended to clarify the management of bald eagle habitats not included in the Jackson Canyon ACEC. The effects analysis and determination for each management action are based solely on the description of each management action provided in the RMP and any established guidelines that may apply (for example, *Wyoming BLM Mitigation Guidelines for Surface-Disturbing and Disruptive Activities and Bald Eagle Management Plan*). Mitigation measures that are not included as part of the RMP will be presented in the Conservation Measures section of this document. These measures are not considered in the effects determination because they are not included as part of the action. Refer to the Platte River RMP for a complete description of each management prescription (BLM 1985b)

Cultural Resource Management

Management Action

Management of cultural resources in the Casper FO will focus on their identification, inventory, and preservation. Cultural sites within the district that have been or may be nominated to the National Register will be protected so that surface development will not affect those sites. Proposals for surface development within the Notches Dome Archeological District will require an on-site Class III inventory before they are implemented. This requirement will be voided if BLM completes a Class III inventory for all land within the archeological district.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect the behavior of the bald eagle by causing them to avoid or abandon areas where management actions are implemented. These potential impacts depend on several factors including the number of people involved with each field effort, the time of year, the duration of field activities, the use of heavy machinery versus hand tools, and the type of bald eagle habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats are possible.

Determination

Implementation of cultural resource management actions, as presented in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Energy and Minerals Management

Management Action

Lands administered by BLM will remain open to oil and gas leasing and exploration, subject to the following provisions. Oil and gas leasing in the Casper FO will be subject to the *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* and other standard lease stipulations. Mitigating measures prescribed in the Platte River Oil and Gas EA (BLM

1982) and the South Big Horn Oil and Gas EA (BLM 1979) will be applied case-by-case. No leasing will occur within Naval Petroleum Reserve No. 3. Oil and gas leasing is restricted on lands within 1 mile of this reserve. Other specific areas within the Casper FO, characterized by steep slopes or highly erosive soils or that are timbered, are not open to oil and gas leasing.

Federal coal land, as identified in the Converse County Coal Amendment (BLM 1983a) can be considered for further leasing through the competitive leasing program, emergency leasing, lease modifications, or exchanges. Delineated tracts on federal coal lands will be available for competitive leasing in one lease sale that will begin with a second-round sale in the Powder River basin. Tracts previously considered for leasing and newly delineated tracts will be available for consideration. Any tract that is not selected for inclusion in a lease sale or that is included but not sold can be either redelineated or dropped from further consideration.

Mineral materials such as sand and gravel, moss rock, flagstone, and scoria will be available on demand for sale and for free use. These materials will be available subject to conditions and stipulations developed case by case so that efficient use can be made of the mineral resource. Materials in all low-, moderate-, and high-potential areas are available, except as follows:

- Those within ¼ mile of the North Platte River for its entire length in the PRRA. However, sand and gravel operations authorized before August 1, 1984, or federal sand and gravel within the ¼-mile buffer would be continued.

- Those within bald eagle roost areas.

All BLM-administered mineral estates, except in areas specifically withdrawn from mineral location, will remain open for prospecting for and development of locatable minerals. Development is subject to the regulations contained in 43 CFR 3809. The following areas are withdrawn from mineral location.

- Public water reserves

- North Platte River protective withdrawal

- Leased or patented recreation and public purpose lands

- Muddy Mountain Recreation and Environmental Education Area

- Pathfinder Wildlife Refuge

- Naval Petroleum Reserve No. 3

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable for bald eagle foraging. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on

roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of energy and mineral management actions, as presented in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Fire Management

Management Action

As provided in the Bald Eagle HMP, all federal lands within or adjacent to roosts will be designated priority full suppression zones for fire management. Prescribed burning will be implemented to manipulate vegetation on areas identified for treatment in the range, forestry, and wildlife programs.

Heavy equipment will not be used to construct firelines in areas that contain wagon ruts of the Oregon and Bozeman trails. Cultural resource specialists or area resource specialists will be consulted for locations of identified wagon ruts before heavy equipment is used. Exceptions may be permitted for the protection of human life.

All federal lands within or adjacent to roosts will be designated priority full suppression zones for fire management. Priority full suppression can include suppression of wildfires with all available resources, including vehicle use on existing roads and trails, air support, or construction of roads and grading of firebreaks using heavy equipment. To the extent possible, trees will not be cut within 200 yards of the roosts during fire suppression.

The BLM will pursue cooperative agreements with private landowners and other fire and land management agencies so that an initial attack plan may be established. That plan would be used in the situation analysis plan for an escaped fire when needed. These plans will include identification of areas where grading of roads and firebreaks are most needed for fire suppression and will identify areas where protection from wildfires is most critical. Prescribed burning will be implemented where necessary to meet range and timber resource management objectives, but it would not be allowed from November 1 through March 31.

Effects Analysis

Fire management, particularly actions associated with wildfire suppression and prescribed fire, has the potential to occur in habitats occupied by bald eagles. If these actions, whether planned or unplanned, were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing them to abandon or avoid habitats. Increased human activity associated with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, winter roosting, and foraging habitats.

Forest Management

Management Action

A detailed activity plan for timber management will be developed for 17 designated areas, totaling 13,590 acres, in the Casper FO. Silvicultural practices will complement timber harvesting and increase stand vigor. At least 50 percent of the lodgepole pine and ponderosa pine within stands will be cut either by selective cutting or by clear cutting. Stands of lodgepole pine seedlings will be thinned through Christmas tree sales. Commercial lodgepole pine stands will be thinned by sales of posts and poles and fuelwood. Overmature trees infested by dwarf mistletoe will be cut and removed. Clear cutting of 3 to 5 acres will provide for natural regeneration. If the stand is not regenerating naturally in 3 years, artificial regeneration will be undertaken.

The annual cut will average about 600 thousand board feet (MBF) over the 10-year life of this plan. In the first 5 years, the cut will be about 750 MBF per year; for the next 10 years, it will be 500 MBF per year.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Timber management actions will be restricted to stands of coniferous trees within the Casper FO. Bald eagles in the Casper FO are typically associated with cottonwood forests in riparian habitats for nesting and communal winter roosting and open upland habitats for terrestrial foraging. These habitats are distinct from the areas targeted for forest management actions. Therefore, bald eagles are not expected to experience detrimental effects as the result of forest management actions.

Determination

Implementation of forest management actions, as presented in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle**.** This determination is based on the possibility that forest management actions such as silviculture in and around eagle roosts may affect the bald eagles or their habitats.

Grazing Management

Management Action

Grazing leases will be managed on 1,422,753 acres of public land (100 percent of the FO) (BLM 1985b). BLM will continue, and revise where necessary; the Bates Creek and Table Mountain allotment management plans (AMPs). Leases will be revised as necessary to accommodate expected increases in animal unit months (AUMs) from more intensive range management.

Allotment management plans, cooperative management agreements, and coordinated management plans will be initiated as necessary on priority allotments provided funding and personnel are available to handle the workload. “C” (custodial) allotments will not be monitored unless conflicts are reported. Range projects to be implemented are listed under “RMU 14” in the “Resource Management Prescriptions” section of the Platte River RMP.

When an established stock driveway is not being used for trailing, action will be taken to cancel the stock driveway withdrawal and to fence it into adjacent allotments or to issue leases to adjacent BLM lessees. When stock driveways are used only slightly for trailing and are not fenced, BLM will take action to lease the driveway to the grazing lessee whose lease adjoins the area. AUMs will be reserved for trailing.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of the composition of existing vegetation, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvements may affect foraging habitats, but their availability and distribution throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream banks, introduction of noxious weeds, and reduction of viable cottonwood sapling recruitment and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Lands Management

Management Action

A total of 1,700 acres has been specifically identified for lease or disposal under the Recreation and Public Purposes (R&PP) Act as follows: Casper Mountain, 480 acres; Glendo Reservoir, 92 acres; Gray Rocks Reservoir, 278 acres; Torrington tract, 120 acres; Natrona County School District site, 40 acres, Esterbrook townsite, 15.29 acres; and the Converse County Park, 660 acres. These lands have been identified because they are located within high-use recreation areas or near to communities.

About 470 acres, including 200 acres within Casper's projected growth boundary and 275 acres near the Gray Rocks Reservoir, have been identified for disposal under the R&PP Act, but if no R&PP lease or disposal has been, these lands will be disposed of first by exchange if possible, or by public sale.

Other public lands in the FO can be considered case by case when a definite need for the land is identified, the requirements of the R&PP Act can be met, and the proposal conforms with this and local land use plans.

Sanitary landfilling is the most common method of solid waste disposal in the Casper FO. Public lands are frequently leased for landfills under the R&PP Act. The following areas have been identified as problem areas, and future potential landfill sites may be considered: Arminto, Hiland, and Waltman; Badwater; Raderville; Powder River; Medicine Bow Highway (U.S. 487); Hartville-Sunrise; and Chugwater Creek. In these areas, either there is a problem such as indiscriminate or trespass dumping, or the existing waste disposal facility is inadequate.

Exchanges are used to acquire nonfederal lands to enhance BLM management opportunities. BLM would like to acquire land through exchange in the following selected areas: Muddy Mountain, the North Platte River, Table Mountain, Red Wall, South Big Horns, Rattlesnake Range, Ryan Hill (Oregon Trail), Alkali Slough (Oregon Trail). These areas are considered to exhibit good potential for recreation development, or they contain important wildlife, cultural, scenic, natural, open space, or other resource values.

Public lands that are not critical to current management objectives will be disposed of to acquire land in these areas as opportunities for exchange arise. Some lands have been identified for disposal to acquire specific tracts of private land.

Exchanges may be used to resolve some problems with split estates. These exchanges would be consistent BLM policy on mineral exchanges, as defined in BLM Instruction Memorandum WO 84-81. A case-by-case analysis is essential in mineral exchanges; however, the following options are available:

- Private surface could be acquired on one parcel and federal surface conveyed on another. This option would eliminate a split estate on the one parcel, but would create a split estate elsewhere. This option would be beneficial to the public only in special circumstances.

- Private surface could be acquired on one parcel and federal surface and minerals conveyed on another. This option would eliminate the split estate, but might result in disparities in value.

- Private minerals also can be exchanged for federal minerals, or federal minerals in one area can be exchanged for federal minerals in another, or federal mineral lease rights in one area can be exchanged for lease rights in another area (as when lease rights to minerals beneath alluvial valley floors are exchanged).

About 102,700 acres are tentatively identified for disposal. This acreage includes land that could be available for exchange or sold if the sale would be in the public interest. Disposal can be initiated without amending the RMP.

Where disposal is clearly in the public interest and there is no reasonable possibility of disposal by R&PP Act transactions or through exchange, isolated parcels in RMUs 1 through 13 that have been identified for disposal can be considered for sale upon public request.

Protective withdrawals will be established in four areas. The objective of the withdrawals is to protect and preserve important resource values. Some limitations apply, such as completing intensive mineral investigations. Withdrawals will be recommended in areas that include Pterodactyl Track, Muddy Mountain Environmental Education Area (EEA), Jackson Canyon, and

Table Mountain. About 7,200 acres in these four areas will be recommended for withdrawal. The Platte River protective withdrawal, which contains about 3,300 acres, will be continued. The Fremont Canyon classification and multiple use (C&MU) classification (1,300 acres) will be terminated.

The Oregon Trail corridor and four existing corridors will be designated in accordance with 43 CFR 2806. Except for the new location of the Oregon Trail, each designation will include the same types of facilities that are present within the corridor. The Alcova Communication Site is designated as a communication site window.

The corridors are as follows:

- *Oregon Trail Road*. This corridor consists of three segments. Segment A is approximately 1 mile north of the Oregon Trail Road between the west boundary of the FO and Oil Mountain. All types and sizes of facilities will use this segment. To the extent possible, the southern ½ mile of the corridor width will be used for power lines and overhead facilities, and the northern ½ mile will be used for pipelines and other buried facilities. Segment B extends between Oil Mountain and Casper, generally parallel to the Oregon Trail and over Emigrant Ridge. All sizes of overhead facilities will be considered in this segment. Segment C branches from the Oil Mountain area, around the north edge of Oil Mountain, then along Poison Spider Road into Casper. This segment will be used for all types and sizes of rights of way, but primarily will be used for buried facilities.
- *Poison Spider Road*. This corridor will be ½ mile wide, ¼ mile on each side of the road.
- *U.S. Highway 20-26*. This corridor will be 3 miles wide, 1½ miles on each side of the highway.
- *Wyoming Highway 259/U.S. 87*. This corridor will be 2 miles wide between Casper and Ormsby Road, 5 miles wide between Ormsby Road and Midwest, and 1 mile wide between Midwest and the northern boundaries of the FO.
- *Wyoming Highway 387*. This corridor will be 2 miles wide, 1 mile on each side of the highway.
- *Alcova Area Communication Site*. This communication site window designates three sites on public lands that are preferred locations for adjacent placement of the rights of way for future communication sites. Facilities at the proposed communication sites should be designed for compatibility with existing facilities at these three sites.

Future corridors will be adjusted and new corridor will be designated only when facility placement within an existing designated corridor is incompatible, unfeasible, or impractical and when the environmental consequences can be adequately mitigated. Problems of technical compatibility between facilities and spacing of facilities in corridors will be solved case by case.

Restrictions on placement of rights of way will be as follows:

- Rights of way on Pine Ridge will be prohibited.
- Placement of rights of way will be restricted on Highway 220 from Bessemer Mountain to Alcova; the newly constructed segments of I-25 in Townships 37, 38, 39, and 40 North, Ranges 79 and 80 West; Rattlesnake Range; Red Wall; Muddy Mountain elk winter range; within 1 mile of the North Platte River; Jackson Canyon ACEC, and Squaw Mountain.

- Rights of way in the Red Wall and South Big Horns areas will be prohibited in the area north and west of the Badwater, Lost Cabin, and Buffalo Creek roads, and the Red Wall.

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to injure and to cause mortalities to bald eagles from collisions and electrocutions. Construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Management actions associated with recreation and public use are expected to consider other resource values in evaluating opportunities for recreational and public use. These considerations will limit recreational opportunities within known bald eagle nesting and communal winter roosting areas, but may occur in the diverse terrestrial foraging habitats available in the Casper FO. Recreational and public use in bald eagle terrestrial foraging habitats may cause eagles to avoid or abandon these habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics before disposal, including suitability for and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would likely not be available for disposal. Lands that are not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. These acquisitions would benefit bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Implementation of actions associated with land resource management, as provided in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal may, however, benefit the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Recreation Management

Management Action

Recreation area management plans (RAMPs) will be implemented according to the management objectives and decisions defined for Muddy Mountain, Goldeneye, Middle Fork, and the North Platte.

The Muddy Mountain activity plan, which was completed in 1977, provides planning decisions for preserving the natural character and wildlife habitat. This activity plan encompasses 12,000 acres of BLM land in areas identified as the Muddy Mountain EEA, North Rim, Corral Creek Canyon, West Rim, Baldy Knob, and the East End. The plan sets forth actions necessary to manage public use so that resource damage and conflicts are minimized. Uses included are recreation, public access, visitor control and environmental protection, information, interpretation, special recreation use permits, wildlife, timber, range minerals, lands, and fire management. The EEA will be recommended for withdrawal from the 1872 mining law.

The Goldeneye plan provides for cooperative management of 733 acres of BLM land, 280 acres of state land, and 140 acres of private land, or a total area of 1,153 acres. Included in the total acreage is a 488-acre reservoir. The management program sets forth actions for recreation (hunting, fishing, and picnicking), wildlife (trout fishery and bird habitat), livestock grazing, mineral development, and lands actions. The plan permits no surface development within the boundary of the recreation area unless it would facilitate recreational use or enhance wildlife habitat.

The Middle Fork Management area lies in Natrona County (21,600 acres) and Johnson County (57,560 acres). The portion in Johnson County is in BLM's Buffalo FO. A recreation plan has been implemented in the Johnson County portion of the area. The Casper FO will cooperate with the Buffalo FO in managing the Natrona County portion of the Middle Fork Management Area. The plan provides for a high–quality, multiple activity recreation area for public enjoyment while protecting high-value resources, ensuring permanent access, and maintaining other compatible resource uses. Cooperative management of the Natrona County portion will emphasize protection of wildlife habitat, access, and cultural resources.

The North Platte River RAMP will provide for management of 200 acres (nine parcels) of public land that is contiguous to the river between Alcova and Casper and 10 riverfront parcels of public surface between Casper and the Wyoming-Nebraska state line. Camping, fishing, boating, hunting, and limited off-road vehicle (ORV) use will be included.

Field inventories will be conducted to monitor use by visitors and resource degradation. Boundary signs will be placed on public land, and hazards on the river will be identified. Written agreements with landowners will be obtained before signs are posted on private surface.

Various types of ORV use are designated in the Casper FO. The following is a list of the designations and the associated acreages:

- Open for unlimited use (200 acres, less than 1 percent total FO);
- Closed to all ORV use (2,616 acres, less than 1 percent total FO):
- Open limited, on designated routes only (64,838 acres, 5 percent total FO); and
- ORVs must stay on existing routes, temporary ORV use in permitted for necessary tasks (1,331,676 acres, 95 percent total FO).

With the exception of guidelines for the Jackson Canyon ACEC, no specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with recreational management and use have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation resource management actions, as presented in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to harass and displace bald eagles and to disturb or destroy suitable nesting and winter roosting habitats.

Soil, Water, and Air Management

Management Action

BLM will implement the Bates Holes watershed plan for southwestern Natrona County to identify sources of heavy sediment loads in the North Platte River. To date, Bolton Creek, Ledge Creek, Bear Creek, Washout Creek, Stinking Creek, and Big Red Creek have been identified as drainages of concern. BLM will attempt to identify the cause of the erosion (geologic or accelerated) and try to reduce or eliminate accelerated erosion. Any attempt to reduce heavy sediment loads will be based on a cost-benefit analysis.

Short-term, intermediate, and long-term stream monitoring surveys (Level II) will be continued on the Stinking Creek, Elk Creek, Red Creek, Bear Creek, and Bolton Creek streams and drainages.

Surface development will be prohibited in the following areas to protect surface water: within ¼ mile of the North Platte River; within 500 feet of live streams, lakes, reservoirs, and canals and associated riparian habitat; and within 500 feet of water wells, springs, or artesian and flowing wells. BLM may waive these restrictions, including the measures that apply to intermittent and ephemeral streams described below, if potential impacts can be acceptably mitigated. The ¼-mile limitation cannot be waived on the Trappers Route tracts, but does not apply to recreation facilities.

Proposals for surface development that involve intermittent and ephemeral streams (as identified on USGS 7.5-minute topographic maps) will be evaluated, and site-specific mitigation measures will be applied as necessary. In other cases, the development will be moved a sufficient distance to ensure the integrity of the natural drainage. This restriction applies to intermittent streams and well-defined ephemeral streams where watershed conditions indicate that the potential exists for the stream to carry sufficient quantities of water to result in damage to surface facilities or to dike channels.

This decision will be applied case by case. It will not apply to every topographic depression or every drainage that might carry runoff at some time. Rather, it applies to drainages that have the potential to affect live streams.

Surface development is not permitted from December 30 to June 1 in the South Fork Powder River drainage, Coal Mountain-Twin Buttes area, Pine Mountain, Rattlesnake Range, Holiday Draw, Badwater-Deadman Butte area, Pine Ridge, and Bear Mountain. Surface development is not permitted from November 30 to June 1 on Muddy Mountain and the front range of the Laramie Mountains. Surface development is not permitted from October 1 to June 1 in the Buffalo Creek Drainage, and the South Bighorn Mountains Special Management Area. Seasonal limitations do not apply to maintenance of existing facilities, and they may be waived in writing by the Authorized Officer. Surface occupancy or use within the Rattlesnake Mountains will be restricted or prohibited unless the operator and the surface managing agency arrive at an acceptable plan to mitigate anticipated impacts. These restrictions or prohibitions may include development and operation and maintenance of facilities. Resources of concern are steep slopes, sensitive soils and watersheds, and visual resources.

Because of the fragile condition of the watershed, no surface development is allowed on Cedar Ridge without the written permission of the Authorized Officer.

Several areas, including Alcova Rim, Mikes Draw, Head of Small Creek, and Torrington Sandhills, will be evaluated to assess the need for special management. Special management could include developing a management plan, establishing protective measures, and placing structures.

Surface development will not be allowed within the rims of the following canyons and gorges: Deer Creek Canyon, Box Elder Creek Canyon, Rock Creek Canyon, Wagonhound Gorge, Brighton Canyon, Baldy Ridge and Peak, and Goshen Hole Rim.

No surface occupancy will be allowed on Cottonwood Creek.

Effects Analysis

Management of soil, water, and air resources is not expected to detrimentally impact bald eagle behavior or suitable nesting, communal winter roosting, or foraging areas. Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts depend on several factors, including the number of people involved with each field effort, the time of year, duration of field activities, the use of heavy machinery versus hand tools, and the type of bald eagle habitat affected. Implementation of resource management actions for soil may maintain or improve the condition of some habitats and therefore may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Actions associated with watershed management will not negatively impact bald eagle behavior or their nesting, communal winter roosting, or foraging habitats. These management actions will likely benefit bald eagles by maintaining or improving habitat and foraging areas associated with aquatic systems.

Actions related to air quality management will not result in negative impacts to bald eagle behavior or habitats. Implementation of these management actions will likely maintain or improve environmental conditions throughout the FO, which may have secondary benefits to the bald eagle and its prey.

Determination

Implementation of resource management actions for soil, water, and air, as presented in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Wildlife Management

Management Action

Three wildlife management areas are included in the Casper FO: Table Mountain, Springer/Bump-Sullivan, and Bates Creek Reservoir. Specific objectives are described for various species management areas (such as antelope, deer, sage grouse, and elk).

For bald eagles, no surface development will be permitted on communal winter roosting areas, which cover 17,684 acres (1 percent of the FO). Disturbance to trees or improvement to roads or legal access will not be allowed in these bald eagle communal winter roosts, except as needed for fire suppression or control of pine beetle infestations. Pine beetle control efforts within communal winter roosting areas for the bald eagle will be conducted between April 1 and October 31. No

surface development will be allowed from November 1 through March 31 on the remaining communal winter roosting areas for the bald eagle in the FO. Surface development on public lands will be prohibited on an area from ¼ to 1 mile of known or discovered nests. The specific distance and dimensions of the area where surface development will be prohibited will be established on a case-by-case basis after BLM consults with the USFWS in accordance with the Endangered Species Act.

BLM will attempt to acquire riverfront land along the North Platte River upstream of Casper and dispose of BLM-administered lands along the North Platte River downstream of Casper. The lands downstream will be available for disposal to entities that will manage the land to maintain the resource values present. Surface development will be prohibited within ¼ mile of the North Platte River on a year-round basis, except as specified in the following paragraph. This limitation will not apply to recreation or habitat improvement projects. In addition, mineral material or other surface development on specific parcels of land within ½ mile of the river will not be allowed from November 1 through March 31. Modifications to the seasonal limitation in any year may be approved in writing by the Authorized Officer. The seasonal limitation does not apply to maintenance and operation of existing or producing mineral facilities. No seasonal or occupancy restrictions, except as may be identified on a site-specific basis to protect wildlife or other resource values present, will be applied to rangeland feeding areas. BLM will develop a public education program for bald eagle feeding areas along the North Platte River and on public rangelands. Under the program, information will be distributed to landowners, grazing lessees, and the public. Information will be designed to identify ways land users can avoid hazards to bald eagles and can benefit bald eagles that use the feeding areas where possible. Actions proposed on public lands in known or other discovered flyways for the bald eagle will be analyzed on a case-by-case basis. BLM will consult with the USFWS in accordance with the Endangered Species Act if required.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing them to avoid or abandon habitats that experience active management projects. Potential impacts depend on several factors that include the number of people involved with each field effort, the time of year, the duration of field activities, the use of heavy machinery versus hand tools, and the type of bald eagle habitat affected. Implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife habitat management actions, as presented in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for some management actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects. Contemporaneous beneficial effects are likely as a result of successful implementation of management actions for wildlife habitat.

Special Designations Management

Management Action

Seven special designations are identified within the Casper FO. The Jackson Canyon ACEC is specifically designated for management of unique wildlife features and communal winter roosting areas for the bald eagle. Strict access controls, including seasonal restrictions, are applied at this ACEC and others to avoid impacts to communal winter roosting bald eagles.

Effects Analysis

Management of the specially designated areas is not expected to detrimentally impact bald eagle behavior or habitats. Management of these special areas may have beneficial effects because of the access restrictions, limitations on surface disturbance, and management objectives intended to benefit bald eagles and their habitats.

Determination

Implementation of special designations habitat management actions, as presented in the Platte River RMP (1985b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities along Jackson Canyon to harass or displace bald eagles. In particular, casual recreation and potential forestry work may affect bald eagles. Future work that involves pine beetle infestations may also affect bald eagles.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Platte River RMP management actions.

TABLE 3: SUMMARY OF DETERMINATIONS FOR THE PLATTE RIVER RMP

Resource	Determination
Cultural Resources	Likely to adversely affect
Energy and Minerals	Likely to adversely affect
Fire	Likely to adversely affect
Forest	Likely to adversely affect
Lands	Likely to adversely affect
Livestock Grazing	Likely to adversely affect
Recreation	Likely to adversely affect
Soil, Water, and Air	Likely to adversely affect
Wildlife	Likely to adversely affect
Special Designation Areas	Likely to adversely affect

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Casper FO. Non-federal actions that may affect the bald eagle or suitable habitats include:

- Oil and gas fields on private lands
- Housing developments along the Platte River, particularly near Casper
- Livestock grazing on private lands
- Sand and gravel operations along major river corridors (especially the North Platte River).

Implementation of the Platte River RMP would not change any potential effects to the bald eagle that may result from current or projected future non-federal actions.

CODY FIELD OFFICE

The *Cody Record of Decision and Approved Resource Management Plan* (RMP) was signed in November 1990 (BLM 1990a). The RMP provides the management direction for approximately 891,600 acres of public surface lands and 1,508,000 acres of federal mineral estate within the Cody Field Office (FO). The Cody FO is located in north central Wyoming and occupies portions of Big Horn and Park Counties.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Cody FO and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Eleven bald eagle nests are known to occur within the Cody FO (**Figure 8**) (Redder 2002; Saville 2002, Van Fleet 2002,). Seven nests are located on privately owned lands, one is on lands administered by BLM, and the remaining three are on state lands. These nests are associated with riparian habitats that occur along the South Fork of the Shoshone River and the Bighorn River.

Communal Winter Roosting Habitat

Mid-winter surveys conducted from 1986 to 2002 have identified communal winter roosting habitats along several water bodies in the FO including the North and South Forks of the Shoshone River, Shoshone River, Skull Creek, Greybull River, Wood River, Bighorn Lake, Bighorn River, Dry Creek, and Nowood River (**Figure 8**) (Saville 2002). The areas identified as communal winter roosts are on privately owned lands, with the exception of roosts located along Dry Creek, northwest of Greybull, which are on lands administered by the BLM.

Concentrated Foraging Habitat

Many of the water bodies identified as communal winter roosting areas are also considered concentrated foraging opportunities for wintering bald eagles (Saville 2002). General foraging habitats are expected to occur throughout the FO in most open, upland habitats where medium-size mammals are hunted and carrion is scavenged.

Livestock grazing, recreation, and traditional oil and gas development are the dominant land uses in the Cody FO. Past actions related to these activities have not likely resulted in important effects to the known bald eagle habitats in the FO. The active status of the known nests and continued use of habitats for roosting and foraging are support that these major lands uses have not detrimentally affected bald eagles or their use of these known habitats.

Figure 8: Cody Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

Existing Conservation Measures

The following section presents measures included in the Cody RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) "Through land exchanges, the BLM will try to acquire nonfederal lands…that contain recovery habitat for threatened or endangered species" (BLM 1990a, p. 13).

(b) "Areas within 2.5 miles of active bald eagle nests and within 0.75 mile or the visual horizon (whichever is closer) of other special status raptor species nest sites are right of way avoidance areas for road construction" (BLM 1990a, p. 14).

(c) "Vehicular use on BLM-administered public lands is designated as limited to designated roads and trails in the following areas – Essential and recovery habitat for threatened and endangered species" (BLM 1990a, p. 22).

(d) "Use of chemicals on noxious weeds will be controlled in areas designated as essential or recovery habitat for threatened, endangered, or sensitive plant and animal species in accordance with site-specific habitat requirements" (BLM 1990a, p. 39).

(e) "For the protection of prey bases essential to the peregrine falcon or other threatened or endangered birds, spraying of insecticides will not be allowed until after the completion of site-specific analyses" (BLM 1990a, p. 39).

(f) "Bald Eagles: Pending the development of a site-specific activity plan, BLM-administered public lands within 2.5 miles of active bald eagle nests (currently involving about 2,480 acres) will be managed as essential and recovery habitat for bald eagle production. Surface-disturbing and other disruptive activities will be controlled in these areas to avoid or mitigate adverse effects. When the activity plan is developed, it will provide the management direction for these areas" (BLM 1990a, p. 39, and Appendix B, p. 65).

(g) "Raptors (General): Areas within 0.75 mile or the visual horizon (whichever is closer) of special status raptor species nest sites are avoidance areas for road construction and upgrading. The purpose is to limit increased vehicle use and related disruption or disturbance of special status raptors that could occur during the nesting period because of improved vehicle access. In these same areas, a seasonal restriction will be applied to surface-disturbing or disruptive activities during the nesting season" (BLM 1990a, p. 39).

(h) "The BLM will make every reasonable attempt to coordinate with these agencies (Wyoming Game and Fish Department and U.S. Fish and Wildlife Service) and others who are interested in fish and wildlife habitat management activities on BLM-administered public lands and to accommodate their interests and concerns whenever possible" (BLM 1990a, p.40).

(i) "During raptor nesting periods, road construction and improvement will be avoided whenever possible within 0.75 mile of special status raptor species nest sites or the visual horizon of such nests, whichever is closer. Surface-disturbing activities will be prohibited in these areas if they would result in the loss of an active special status raptor species nest or a structure on which such a nest is built, or if they would cause loss of significant portions of concentration, foraging, or nesting habitat for these raptors" (BLM 1990a, p.54, and Appendix B, p. 65).

(j) "To protect important raptor nesting habitat, activities or surface use will not be allowed from February 1 through July 31 within certain areas encompassed by the authorization. The same criteria apply to defined raptor winter concentration areas from November 15 through April 30" (BLM 1990a, Appendix B, p. 60).

(k) "Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (name) which is a threatened or endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that (name) occurrence is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications)" (BLM 1990a, Appendix B, p.60).

(l) "The following land and resource values in the Cody planning area will be protected by application of the standard mitigation guidelines: raptor habitat (including nest sites and concentration areas), and threatened and endangered plant and animal species and other special status species and their habitats" (BLM 1990a, Appendix B, p. 63).

(m) "The construction or development of a range improvement project would be denied if the proposal would affect or jeopardize the continued existence of federally listed threatened or endangered plant or animal species and/or its habitat. Consultation and coordination with USFWS would be required under such conditions to determine acceptable mitigating measures to avoid possible impacts" (BLM 1990a, Appendix G, p.94).

Analysis of Proposed Management Actions and Effects

The Cody RMP (BLM 1990a) includes descriptions of each management prescription applied within the FO. The following text briefly summarizes the activities and any specific mitigation measures that are associated with each management prescription. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* will be applied to all surface disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and restrictions on surface occupancy that will minimize potential effects to bald eagles and their habitats. Refer to the Cody RMP for a complete explanation of each prescription.

Air Quality Management

Management Actions

The objective of air quality management is to maintain air quality at state Class II standards, or better. No specific management actions are presented with this program. However, actions conducted under other resource programs, including fire or mining, will be conducted to avoid violation of the Wyoming and National ambient air quality standards.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions related to air quality management will not result in negative impacts to bald eagle behavior or habitats. Implementation of these management actions will likely result in maintaining or improving environmental conditions throughout the FO, which may have secondary benefits to the bald eagle and its prey.

Determination

Implementation of air quality management actions, as presented in the Cody RMP (1990), is **not likely to adversely affect** the bald eagle, due to **insignificant effects**.

Cultural and Paleontological Management

Management Actions

The objective of cultural and paleontological resource management is to protect, study, and expand the interpretation of these resources. Areas near significant cultural and paleontological resource sites and within ¼ mile or the visual horizon of significant segments of historic trails and canals are designated as avoidance areas for surface disturbance activities.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of cultural resource management actions, as presented in the Cody RMP (1990), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Fire Management

Management Actions

The objectives of fire management are to use prescribed fire to meet RMP objectives for the management of other resources; and suppress wildfires to protect resource values, property, and human life.

Portions of the FO that are located west of State Highway 120 and east of the Bighorn River are designated as full suppression areas for wildfires. This area occupies 240,100 acres. The remainder of the FO, approximately 841,100 acres, is designated a limited fire suppression area. Some methods of wildfire suppression will be restricted in sensitive resource areas. The use of

heavy equipment will be restricted or prohibited in areas of fragile soils, in wetland and riparian areas, on lands above significant caves, on Sheep Mountain west of Cody, on Carter Mountain, and in timbered areas of the east end of Rattlesnake Mountain.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in Cody RMP (1990), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, communal winter roosting, and foraging habitats.

Forestland Management

Management Actions

The objective of forestland management is to improve forest resources and wildlife habitat values. Forestlands on Rattlesnake Mountain are in a restricted forest management area. Forest management, timber cutting, and firewood collection will emphasize maintenance or improvement of forest, wildlife, watershed, and recreation resource values. All other forestlands in the FO will be managed to enhance or maintain other resources or uses including recreation, livestock grazing, wildlife, watershed, and scenic values. Unless otherwise specified, timber cutting activities will be allowed on slopes up to 45 percent within the FO.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Forestland management actions will be restricted to coniferous habitats within the FO. In the Cody FO, bald eagles are typically associated with cottonwood forests in riparian habitats for nesting and communal winter roosting and open upland habitats for terrestrial foraging. These habitats are distinct from those targeted for forest management actions. Therefore, bald eagles are not expected to experience detrimental effects as the result of forest management actions.

Determination

Implementation of forest management actions, as presented in the Cody RMP (1990), is **likely to adversely affect** the bald eagle**.** This determination is based on the possibility for bald eagles to colonize coniferous forests in the Cody Field Office and the likelihood that forestland management activities may affect the bald eagle.

Geothermal Management

Management Actions

The objective of geothermal resources management is to maintain opportunities for geothermal exploration and development. Geothermal resources are available for leasing in areas that are open to oil and gas leasing. Exploration and development of geothermal resources are subject to application of restrictions on surface-disturbing activities and other restrictions in the same manner as they are applied to oil and gas exploration and development.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Activities and potential effects to bald eagles that result from development of geothermal resources are not unique and are similar to potential effects from mineral and oil and gas development. Human activity associated with development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of natural resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All natural resource development projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of geothermal management actions, as presented in the Cody RMP (1990), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for existing and current geothermal development to cause harassment, displacement, injury, and mortality of bald eagles.

Hazardous Materials, Hazardous Waste, and Other Hazards Management

Management Actions

The objective for hazardous materials and waste management is to protect public health and safety on BLM-administered lands and prevent waste contamination caused by any BLM-authorized actions. For BLM-authorized activities that involve hazardous materials or their use, precautionary measures will be used to guard against releases or spills. BLM-administered lands that are contaminated with hazardous wastes will be reported, secured, and remediated according to applicable federal and state regulations. If other hazards should be identified, BLM will provide appropriate warnings and establish precautions for safety hazards associated with the use of any areas on BLM-administered lands.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Emergency responses involving increased human presence and the use of machinery and heavy equipment may influence bald eagle behavior by causing eagles to avoid or abandon otherwise suitable habitats. Depending upon the location and severity of hazardous material releases, bald eagle nesting, wintering roosting, and foraging habitats may be affected. Hazardous material release and response actions may also affect potential bald eagle prey by causing injury or mortality, displacing prey from suitable habitats, or disturbing prey habitats. These potential effects to prey and their habitats would likely be limited in scale relative to the abundance of prey and foraging habitat available throughout the Cody FO.

Determination

Implementation of hazardous materials management actions, as presented in the Cody RMP (1990), are **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that releases of hazardous materials and subsequent response actions will harass or displace bald eagles and disturb or destroy suitable eagle habitats.

Lands and Realty Management

Management Actions

The objective of lands and realty management is to support the goals and objectives of other resource programs for managing the BLM-administered lands and to respond to public demand for land use authorizations.

BLM access policy in Wyoming is to acquire permanent exclusive easements over mainline roads on the BLM transportation plan. A BLM mainline road is considered the principal access into larger blocks of public lands administered by BLM or intro tracts of lands administered by BLM with high resource values. All access actions will be consistent with this and other provisions of the Wyoming of BLM access policy. The BLM will seek to acquire and retain access in several areas, including recreational access along the North and South Forks of the Shoshone River.

Approximately 55,900 acres of BLM-administered lands have been identified for disposal in the Cody FO. Proposals for disposal of any BLM-administered lands in the FO will be considered. All disposal actions will be assessed for potential effects to other important resources prior to approval. Priority will be give to disposal of lands proposed to meet community needs. Exchange will be the preferred method of disposal or acquisition of lands by BLM. Lands included in several sections within the Cody FO will be targeted for acquisition because these lands contain recovery habitats for threatened and endangered wildlife species.

Designated utility and pipeline corridors and communication site windows include areas of existing right of way concentration areas and three existing communication sites. These designated corridors and windows are the preferred locations for future communication sites and utility and pipeline rights of way. Most of the FO is open for location of utility and transportation systems. Proposals will be addressed on an individual basis with emphasis on avoiding potential conflict areas.

The areas within 2 miles of the Bighorn River and within 1 mile of the Shoshone and Greybull Rivers and the Clark Fork of the Yellowstone River are avoidance areas for construction of aboveground power lines. Areas within 2½ miles of active bald eagle nests are right of way

avoidance areas for road construction. If restricted types of rights of way are required in avoidance areas or when such areas cannot reasonably be avoided, the adverse effects of construction will be intensively mitigated in these areas.

Reviews of withdrawn lands, under section 204(I) of Federal Land Policy and Management Act (FLPMA), will be completed to determine whether withdrawals are serving or needed for their intended purposes. These reviews are not a part of developing the RMP. Thus, no decisions are made on the termination of any withdrawals in this RMP. Existing stock driveway withdrawals will be retained, although the BLM reserves the right to modify historic trailing routes and use to mitigate any impacts associated with trailing, or to deny trailing use if the impacts cannot be adequately mitigated. Withdrawals from locatable mineral entry and development will be initiated on the BLM-administered Bighorn River HMP/RAMP tract and the BLM-administered by BLM in the Yellowtail Wildlife Habitat Management Unit (HMU). Withdrawals from locatable mineral entry and development will be initiated on the Five Springs Falls ACEC and in the Little Mountain ACEC.

About 500,000 acres of land administered by BLM that were classified under the provisions of the Classification and Multiple Use (C&MU) Act were initially reviewed in 1981. At that time, C&MU retention classifications and segregations from the land laws were terminated on all but 2,840 acres and segregations from the mining laws were terminated on 200 acres.

The C&MU classifications in the FO were established by BLM and no other agencies or administrative authorities were involved. Approximately 493,000 of these acres were classified for retention in federal ownership for multiple use management and were segregated from disposal through operation of public lands laws. The remaining 7,000 acres were also classified for retention and multiple acres were also classified for retention and multiple use management and segregated from disposals, but in addition, were segregated from mineral location through operation of the mining laws, to protect important resource values.

Review of the remaining 497,000 acres of lands administered by BLM in the FO indicated that all of the classifications were either no longer serving their intended purpose or no longer needed for their intended purpose. These lands will be managed as follows:

- Any terminations of C&MU classifications that were not completed in 1981, will be completed.

- When classification terminations are processed, they will be reviewed to identify needed refinements to the RMP management decisions or to identify the need for new protective withdrawals to be initiated. If necessary, the RMP will be amended.

- Recreation values and rare plants at Five Springs Falls and important caves and scenic values with the Little Mountain ACEC will remain closed to locatable mineral entry and development under the existing C&MU classifications, until after the new withdrawals are in place.

- All remaining lands under previous C&MU classifications will be managed under the various provisions and management decisions of the Cody RMP, as they apply.

Effects Analysis

Management of existing access and acquisition of new access to lands administered by BLM will not alter bald eagle behavior. Improved or new access to lands under new administration may result in positive effects to bald eagle habitats by securing these lands and managing them under BLM provisions.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Corridors are designated and managed to accommodate power lines, communication towers, pipelines, and roads. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Actions associated with C&MU are not expected to impact bald eagle behavior or habitats.

Determination

Implementation of land resource management actions, as provided in the Cody RMP (1990) is **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included in corridors to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Livestock Grazing Management

Management Actions

The objective of livestock grazing management is to improve forage production and ecological range condition for the benefit of livestock use, wildlife, and watershed resources. Management of grazing systems, land treatments, range improvements, and development of allotment management plans (AMPs) will be directed toward resolving or reducing spring grazing conflicts between livestock and wildlife uses, toward improvement of wetland and riparian areas, and overall improvement of vegetative ground cover and production. The total authorized livestock grazing use will not exceed 90,895 animal unit months (AUMs). Livestock grazing will not be allowed in Bighorn River HMP/RAMP tracts, which totals approximately 2,500 acres.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may affect foraging habitats, but the availability and distribution of suitable foraging habitats throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles.

Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Cody RMP (1990), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Minerals Management

Management Action

The objective of minerals management is to maintain or enhance opportunities for mineral exploration and development, while protecting or enhancing other resource values. Surface-disturbing activities associated with all types of mineral exploration and development and geophysical exploration are subject to application of the *Wyoming BLM Standard Mitigation Guidelines for Surface-Disturbing Activities*.

The coal screening process has not been conducted in the FO. Interest in exploration or leasing of federal coal will be handled on a case-by-case basis. If an application for a coal lease should be received in the future, an appropriate land use and environmental analysis, including the coal screening process, will be conducted to determine whether the coal areas are acceptable for development and for leasing.

All parts of the FO that are open to oil and gas exploration are open to geophysical exploration. Those lands identified as closed to oil and gas exploration are also closed to geophysical exploration. On lands with “no surface occupancy” restrictions for oil and gas exploration and development activities, only causal use geophysical exploration will be allowed, unless otherwise specified. Surface disturbance restrictions for geophysical exploration activities apply to both leased and unleased land.

With the exception of the McCullough Peaks Wilderness Study Area, the FO is open to oil and gas leasing, subject to appropriate restrictions for surface disturbing activities. Throughout the FO, oil and gas reclamation plans will be prepared to improve reclamation in old field s and to allow for orderly development of new fields. Restrictions or requirements that are no longer applicable, insufficient, or too restrictive may only changed using conservation measures, Conditions of Approval, in authorizing Applications for Approval, Plans of Operation, or Plans of Development.

Except for specific areas identified as closed, the FO is open to staking of mining claims and operation of the mining laws for locatable minerals. Plans of operations or notices of intent will be required for locatable mineral exploration and development activities consistent with regulations. All locatable minerals additions will be reviewed to assure compliance with the BLM bonding policy for surface disturbing actions.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of minerals management actions, as presented in the Cody RMP (1990), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Off-Road Vehicle Management

Management Action

The objective of off-road vehicle (ORV) management is to maintain or enhance opportunities for ORV use while protecting or avoiding adverse effects of vehicular travel on other resource values. Unless otherwise specified, vehicle use on BLM-administered public lands in the FO is designated as limited to existing roads and trails. Several areas, including the Bentonite Hills, Irma Flats, and Lovell Lakes Motorcross Area, have been designated as open to ORV use. Vehicle use on BLM-administered lands is designated as limited to designated roads and trails in the following areas:

- Essential and recovery habitat for threatened or endangered species;
- Areas with fragile soils or with Class I or II Visual Resource Management ratings;
- Areas containing significant cultural or paleontological resources;
- Areas over important caves or cave passages;
- The Bighorn River and West Slope Special Recreation Management Areas;
- Rattlesnake Mountain; and
- The Carter Mountain, Little Mountain, and Sheep Mountain Anticline ACECs and in the McCullough Peaks area.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Off-road vehicle use is not expected to affect bald eagles or their nesting or communal winter roosting habitats due to the restriction of ORV use in these important bald eagle habitats. Off-road vehicle use is not likely to disturb foraging bald eagles because these eagles tend to be relatively less sensitive to human disturbances and can easily forage in areas unused by ORVs. Potential effects of ORV use on open, upland habitats will not likely affect bald eagles because open ORV use will occur in areas not expected to provide concentrated or important foraging habitats for the eagle. In other areas designated as "closed" or "restricted," suitable foraging habitats will likely receive little or no impacts from ORV use.

Determination

Implementation of ORV management actions, as presented in the Cody RMP (1990), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that effects from ORV use will result in take.

Recreation Management

Management Action

The objective of recreation management is to enhance opportunities for primitive recreation while increasing visitor services in some areas. Within the FO, recreation areas have been designated as special or extensive. Five special recreation management areas (SRMAs) are designated in the FO, which occupy approximately 125,000 acres of BLM-administered surface lands. The remaining FO is designated as an extensive recreation management area (ERMA). Recreational uses of the Bighorn River, such as fishing, boating, and hunting, will be managed under the Bighorn River HMP/RAMP.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with recreational management and use have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation resource management actions, as presented in the Cody RMP (1990), is **likely to adversely affect** the bald eagle. This determination is based on the worst-case scenario that activities associated with recreational management and use will result in adverse effects to the bald eagle.

Visual Resource Management

Management Actions

The objective of visual resource management (VRM) is to maintain or improve scenic values and visual quality throughout the FO. Visual resources will be managed in accordance with objectives for VRM classes that have been assigned to the FO. Prior to authorizing land use actions, visual resource values will be considered. Surface-disturbing activities will be prohibited in Class I or II VRM areas, unless adverse impacts can be mitigated or avoided.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with visual resource management will not directly impact bald eagle behavior or habitats. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be suitable for bald eagles or their prey.

Determination

Implementation of visual management actions, as presented in the Cody RMP (1990), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that implementation of these actions may preserve or minimize disturbance to habitats that may be suitable to bald eagles or their prey.

Watershed Management

Management Action

The objectives of watershed management are to stabilize and conserve soils, increase vegetative production, and to maintain or improve water quality. A maintenance priority is placed on approximately 700 acres of existing spreader dikes and 10 existing detention dams in the FO. Other watershed projects will be maintained as necessary. Surface water quality will be monitored in areas where noxious weeds will be treated. Watershed improvement practices in the Wyoming's Bighorn Basin water quality plans will be implemented to reduce sediment loading in the streams and river segments. Priority stream segments for use of watershed improvement practices and development of watershed activity plans include:

- Priority 1: The Shoshone River (from its confluence with the Bighorn River to the Buffalo Bill Dam). Priority drainages within the Shoshone sub-basin include Whistle, Deer, Coon, and Sand Creeks, Roan Wash, and Foster Gulch.

- Priority 2: The Bighorn River (from Bighorn Reservoir to Greybull). Priority drainages within the Bighorn sub-basin are Crystal, Bear, and Dry Bear Creeks.

Surface disturbing activities will be prohibited within 500 feet of surface water and riparian areas, except when necessary and when their impacts can be avoided or mitigated.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with watershed management will not negatively impact bald eagle behavior or their nesting, communal winter roosting, or foraging habitats. Maintaining spreader dikes, retention dams, and watershed improvement practices could displace bald eagles or alter habitat. Certain management actions may also benefit bald eagles by maintaining or improving habitat and foraging areas associated with aquatic systems.

Determination

Implementation of watershed management actions, as presented in the Cody RMP (1990), is **likely to adversely affect** the bald eagle.

Wild Horse Management

Management Action

The objective of wild horse management in the McCullough Peaks Wild Horse Herd Management Area (WHHMA) is to maintain a viable herd that will maintain the free-roaming nature of wild horses in a thriving ecological balance and to provide opportunity for the public to view them. The McCullough Peaks WHHMA will be managed to maintain a population of 100 wild horses until monitoring data indicate changes in the population level are necessary.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with wild horse management in the McCullough Peaks WHHMA are expected to be limited to occasional herding, corralling, and transporting of horses. The increase in human presence associated with these activities may temporarily alter the behavior of terrestrial foraging bald eagles. These actions are not expected to detrimentally impact the behavior of nesting or communal winter roosting bald eagles or nesting or roosting habitats.

Determination

Implementation of wild horse management, as presented in the Cody RMP (1990), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that bald eagles will be adversely affected by actions associated with management of wild horses.

Wildlife and Fish Management

Management Action

The objective of wildlife and fish management is to maintain and enhance fish and wildlife resources so that forage production and quality of rangelands and fish and wildlife habitat will be maintained or improved. Vegetative manipulations and application of the *Wyoming BLM Standard Mitigation Guidelines for Surface-Disturbing Activities* will be used to maintain or improve uncommon and important wildlife habitats such as wetlands, mountain shrublands, Douglas fir, Engelmann spruce-subalpine fir, and aspen-conifer forestlands. Surface disturbance restrictions will be applied on BLM-administered tracts managed under the Bighorn River HMP/RAMP (recreation area management plan) (approximately 2,500 acres), and on BLM-administered lands in the Yellowtail Wildlife habitat management unit (HMU) (approximately 4,070 acres). For the protection of prey bases essential to threatened or endangered birds, spraying of insecticides will not be allowed until after a site-specific environmental analyses. When practical, BLM will consult with WGFD in applying mitigation for wildlife needs and before waiving, allowing exceptions to, or modifying wildlife-related land use restrictions and mitigations. BLM-administered public lands within 2.5 miles of active bald eagle nests will be managed as essential and recovery habitat for bald eagle production. Surface-disturbing and other disruptive activities will be controlled in these areas to avoid or mitigate adverse effects. The BLM will make a reasonable attempt to coordinate with WGFD and USFWS regarding fish and wildlife management on BLM-administered lands and to accommodate their interests and concerns whenever possible.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife habitat management actions, as presented in the Cody RMP (1990), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles. The result of these actions may benefit the bald eagle by maintaining or enhancing suitable nesting, communal winter roosting, and foraging habitats.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Cody RMP management actions.

TABLE 4: SUMMARY OF DETERMINATIONS FOR THE CODY RMP

Resource	Determination
Air Quality	Not likely to adversely affect, due to insignificant effects
Cultural and Paleontological	Likely to adversely affect
Fire	Likely to adversely affect
Forestland	Likely to adversely affect
Geothermal	Likely to adversely affect
Hazardous Materials	Not likely to adversely affect, due to discountable effects
Lands and Realty	Likely to adversely affect
Livestock Grazing	Likely to adversely affect
Minerals	Likely to adversely affect
Off-Road Vehicles	Not likely to adversely affect, due to discountable effects
Recreation	Likely to adversely affect
Visual Resources	Not likely to adversely affect, due to beneficial effects
Watershed	Likely to adversely affect
Wild Horses	Not likely to adversely affect, due to discountable effects
Wildlife and Fish	Likely to adversely affect

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Cody FO. Future State, tribal, local, or private actions in the Cody FO include the following (Harrell 2003):

- Oil field exploration proposed for the western side of the Bighorn Mountains
- Bentonite and gypsum mining on the western side of the Bighorn Mountains
- Seismic exploration outside of the town of Clark, near the Clark's Fork River
- Possible coal exploration in coal seams throughout the Cody FO

None of these possible projects are situated within important bald eagle habitats. However, certain components of these projects, if completed, could directly or indirectly affect bald eagles or bald eagle habitats. Implementation of the Cody RMP would not change any potential effects to the bald eagle that may result from current non-federal actions.

KEMMERER FIELD OFFICE

The *Record of Decision for the Kemmerer Resource Management Plan*, signed on April 29, 1986, is a comprehensive plan for managing the Kemmerer field office (FO) (BLM 1986). The Kemmerer FO occupies approximately 1.63 million acres in southwestern Wyoming. The FO occurs in Lincoln, Sweetwater, and Uinta Counties, and includes some lands in Idaho and Utah. These lands outside of Wyoming are managed for range resources only under the Kemmerer RMP.

The approved Kemmerer RMP represents a selection of management actions that will resolve the planning issues and provide multiple use management of the public lands and resources that will best meet present and future needs. As previously mentioned in this document, the Wyoming approved stipulations will be used, as appropriate, to condition development activities in all programs where surface disturbing activities take place and where the objectives of the RMP include the protection of important resource values. Restrictions specifically set forth in resource management plans are complementary to those included in the *Wyoming BLM Mitigation Guidelines and BLM Guidelines for Livestock Grazing Management* and are not all-inclusive.

The objectives of the RMP are to provide a degree of protection to certain resources rather than to restrict other activities. Four areas of no surface occupancy have been designated within the FO. These restricted areas include: bald eagle communal winter roosting sites (Woodruff Narrows, Morgan Canyon, and Rock Creek), the Bridger Antelope Trap, sensitive plant locations, and lands within a ¼ mile radius of perennial streams in the Raymond Mountain ACEC.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Kemmerer FO and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Seven bald eagle nests are currently known within the Kemmerer FO (Phinney 2002; Redder 2002; Van Fleet 2002). Four nests are located on privately owned, with one located along the Smiths Fork River (**Figure 9**). Three nests are located on lands administered by federal agencies (for example, BOR, USFWS, or USFS). None of the known nests within the Kemmerer FO are on lands administered by BLM. These nests occur in riparian habitats associated with the Green River, Bear River, Smiths Fork, and Salt River.

Recreation and livestock grazing are the dominant uses on lands administered by BLM near these nests. Effects to bald eagles and bald eagle habitats resulting from these land uses have been minimal despite the potential for effects from livestock grazing to riparian habitats. Nesting activity in recent years may provide sufficient evidence that these land uses are not a detrimental affecting.

Figure 9: Kemmerer Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

Communal Winter Roosting Habitat

Three communal winter roost sites are known to exist within the Kemmerer FO: the Woodruff Narrows, Morgan Canyon, and Rock Creek Roost Sites (**Figure 9**) (Phinney 2002). The Woodruff Narrows Roost site is located north of Woodruff Narrows Reservoir along Bear River and is dominated by mature cottonwood trees. The Morgan Canyon Roost is located along Rock Creek near Fossil Butte National Monument. This roost site is dominated by several groups of coniferous trees. The Rock Creek Roost (Nugget Canyon) is located along Twin Creek in six mature coniferous trees. This roost is within approximately 100 yards of U.S. Highway 30 and an active railroad.

Recreation and livestock grazing are the dominant uses on both public and private lands. These uses have had minimal effects to communal winter roosting bald eagles or roosting habitats, as evidenced by the continued seasonal use of these areas.

Foraging Habitat

Foraging habitats are particularly important during the winter when alternative prey may not be available. In the Kemmerer FO, concentrated foraging habitats that are used by communal winter roosting bald eagles may include ice-free streams and reservoirs such as Bear River, Woodruff Narrows Reservoir, Rock Creek, and Twin Creek, and big game and livestock carcasses found on crucial winter ranges and near highways and railroads.

Each of the roost sites in the Kemmerer FO is located in crucial winter range for elk, mule deer, and moose. Big game deaths attributable to winter mortality and vehicle collisions provide carrion for communal winter roosting bald eagles in the Kemmerer FO. Big game carrion is the primary food source for communal winter roosting eagles in this FO (Phinney 2002). Big game deaths caused by collisions with vehicles are particularly common near the Morgan Canyon and Rock Creek roost sites because of the steady traffic flow along U.S. Highway 30 and an active railroad line. Many of the rivers and bodies of water near these roosts remain ice-free or are partially ice-free during the winter and can provide fish and waterfowl foraging opportunities.

Recreation and livestock grazing are the dominant uses on both public and private lands near many concentrated foraging habitats. Approximately ten years ago, the Wyoming Department of Transportation initiated a program to remove big game carcasses from the highway in an effort to reduce the number of vehicle collisions with bald eagles that feed on carrion.

Existing Conservation Measures

The following section presents measures included in the Kemmerer RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) “Four areas of "no surface occupancy" have been designated. They are: bald eagle winter roosts (Woodruff Narrows and Morgan Canyon), the Bridger Antelope Trap, sensitive plant locations, and within a ¼ mile radius of perennial streams in the Raymond Mountain Area of Critical Environmental Concern” (BLM 1986, p. 5).

(b) "No activity or surface disturbance will be allowed for up to a ¾ mile radius from active raptor nest sites from February 1 through July 31 (except that bald eagle and peregrine falcon restrictions extend from February 1 through August 15). A nest site will be considered active if it has been used within the past three years. Actual distances and dates will vary based on topography, species, season of use, and other pertinent factors" (BLM 1986, p. 9, 29).

(c) "During consultation with the U.S. Fish and Wildlife Service, the following stipulations to protect bald eagles and peregrine falcons and their habitat were developed:

> Approval of geophysical operations will be conditioned so that they do not adversely affect bald eagle roosting areas. Bald eagle winter roosting sites and a one-mile buffer zone around them will be closed from November 1 through April 1.
>
> If any active bald eagle or peregrine falcon nests are found, no activity or surface disturbance will be allowed for up to a ¾ mile radius from an active nest from February 1through August 15. A nest site will be considered active if it has been used within the past three years. Actual distances and dates will vary based on topography, species, season of use, and other pertinent factors" (BLM 1986, p.11, 30).

(d) "The objectives of the proposed Woodruff Narrows mitigation plan will be to improve riparian habitat used as a bald eagle winter roost and to mitigate possible habitat loss from the construction of a low head hydro power plant" (BLM 1986, p.25).

Analysis of Proposed Management Actions and Effects

The RMP includes descriptions of each management prescription applied within the FO. The following text briefly summarizes the activities and any specific mitigation measures associated with each management prescription. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* will be applied to all surface disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and no surface occupancy restrictions that will minimize potential effects to bald eagles and their habitats. Refer to the Kemmerer RMP (BLM 1986) for a complete explanation of each prescription.

Air Quality Management

Management Actions

The FO will be managed to protect and enhance air quality through careful planning and coordination with the State of Wyoming. When appropriate, the BLM and state agencies will coordinate the issuance of appropriate permits and the collection of climatic and meteorological data. BLM will consider the potential impacts of the release of hazardous air contaminants. BLM specialists will continue to collect basic climate and meteorological data. BLM will also collect atmospheric deposition (acid rain) data. These data will be used to determine actual or potential impacts resulting from air pollutant emissions and to provide information on proposed emission sources during the permit process.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions related to air quality management will not result in negative impacts to bald eagle behavior or habitats. Implementation of these management actions will likely result in maintaining or improving environmental conditions throughout the FO, which may have secondary benefits to the bald eagle and its prey.

Determination

Implementation of air quality management actions, as presented in the Kemmerer RMP (1986), are **not likely to adversely affect** the bald eagle, due to **insignificant effects**. In addition, air quality management efforts may result in positive effects to air quality and visibility that would be beneficial to bald eagles and their prey.

Geology and Minerals Management

Management Actions

Geophysical, oil and gas, and mineral (for example; coal, sodium, oil shale, phosphate, and locatable and salable minerals) exploration will occur throughout the Kemmerer FO. For specific management details, not pertaining to minimization of effects to bald eagles, refer to the Kemmerer RMP (1986). These activities are strictly managed within the FO to minimize effects to resource values, including bald eagles and their habitats. Measures that are specific to wildlife and habitat resources are included in the management of geology and mineral resources. No activity or surface disturbance will be allowed for up to a ¾-mile radius from active bald eagle nests between February 1 and August 15. Also included are provisions to protect communal winter roosting areas. A no surface occupancy restriction will be applied to bald eagle communal winter roost sites and a buffer of one mile around them between November 1 and April 1. To protect riparian areas, no surface disturbance will be allowed within 500 feet of perennial streams or live water. Offsite mitigation will be considered on all larger surface disturbing activities in big game crucial winter range and other sensitive wildlife habitat. The requirement of offsite mitigation will be applied on a case-by-case basis depending on the type and duration of the disturbance and the sensitivity of the affected area. Plans for offsite mitigation will be required on a site-specific basis and could include prescribed burning, brush beating, and other methods designed to increase the productivity of wildlife.

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of geology and mineral management actions, as presented in the Kemmerer RMP (1986), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Soils Management

Management Actions

Activities associated with soils management will continue to be prioritized and based on the following factors:

- evaluation and interpretation of soils in relation to project design and development;
- identification and inventory of soils for baseline data;
- identification and implementation of methods to reduce accelerated erosion; and
- provision of soil and climatic data in support of rangeland monitoring, inventory, and project design and development.

Development will be restricted in critical erosion areas and in areas of geologic hazards. Projects will be examined on a site-specific basis, evaluating the potential for soil loss and the compatibility of project design with soil properties. Stipulations and mitigation measures will be developed to ensure soil conservation. Reclamation will be required for all disturbed areas.

Before a surface disturbing activity is authorized, BLM will determine the total topsoil depth. The amount of topsoil to be removed, along with topsoil placement areas, will be specified in the authorization. Temporary disturbances that do not require major excavation (for example, pipelines and communication sites) may be stripped of vegetation to ground level using mechanical treatment, leaving topsoil intact and root mass relatively undisturbed.

Only plant species adaptable to local soil and climatic conditions will be utilized revegetation efforts. On all areas to be reclaimed, seed mixtures will be required to be site-specific and will be required to include species promoting soil stability. Livestock palatability and wildlife habitat needs will be given consideration in seed mix formulation. Follow-up seeding or corrective erosion control measures may be required on areas of surface disturbance that experience reclamation failure.

The protection of trees, shrubs, and ground cover from damage during construction will be required. Backfill will be required to be replaced in a similar sequence and density to preconstruction conditions. The restoration of normal surface drainage will be required. Any mulch used will be free of mold, fungi, or noxious weed seeds. The grantee or lessee will be responsible for the control of all noxious weed infestations on surface disturbances.

Recognized roads will be used when the alignment is acceptable for the proposed use. Generally, roads will be required to follow natural contours; be constructed in accordance with acceptable standards; and be reclaimed to BLM standards. On newly constructed roads and permanent roads, the placement of topsoil, seeding and stabilization will be required on all cut and fill slopes. No unnecessary side-casting of material on steep slopes will be allowed. Reclamation of abandoned

roads will include requirements for reshaping, recontouring, resurfacing with topsoil, installation of water bars, and drill seeding on the contour. Stripped vegetation will be spread over the disturbance for nutrient recycling, where practical.

On well pads and facility locations, special attention will be given to parts of the surface use plant covering reclamation. This plan will include objectives for successful reclamation covering; soil stabilization, plant community composition, and desired vegetation density and diversity. The development of facilities on slopes between 25 and 40 percent will be restricted unless soil erosion controls can be ensured and adequate revegetation is expected. No surface occupancy will be allowed on slopes greater than 40 percent. Abandoned sites must be satisfactorily rehabilitated by the lessee.

Existing road locations will be used where possible to minimize surface disturbances. Where possible, clearing of pipeline and communication line rights of way will be accomplished with the least degree of disturbance to topsoil. Where topsoil removal is necessary, it will be stockpiled and respread over the disturbance after construction and backfilling are completed. Vegetation removed from the right of way will also be required to be respread to provide protection, nutrient recycling, and a natural seed source.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management of soil resources is not expected to detrimentally impact bald eagle behavior or suitable nesting, communal winter roosting, or foraging areas. Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may maintain or improve the condition of some habitats and therefore may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Determination

Implementation of soil resource management actions, as presented in the Kemmerer RMP (1986), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Water Management

Management Actions

Activities within the Kemmerer FO will be managed to comply with state and federal water quality standards. Measures such as avoiding highly erosive areas, implementing zero-runoff programs on large-scale disturbances, and reclamation of all abandoned surface disturbances will be enforced. Potable groundwater supplies will be protected. Road planning, layout and construction and other surface-disturbing activities, will be done in such a way as to reduce impacts to water quality and stream channels by reducing sedimentation.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with watershed management will not negatively impact bald eagle behavior or their nesting, communal winter roosting, or foraging habitats. These management actions will likely benefit bald eagles by maintaining or improving habitat and foraging areas associated with aquatic systems.

Determination

Implementation of watershed and water resources management actions, as presented in the Kemmerer RMP (1986), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions may improve habitats associated with aquatic systems that may be suitable to bald eagles or their prey.

Livestock Management and Rangeland Program Summary

Management Actions

All noxious weed control will adhere to measures allowed in the Record of Decision for the Rock Springs District Noxious Weed Control EA or applicable updated guidance. Cooperation with county weed and pest control programs will continue.

Adequate stock trails will be designated and maintained to support the livestock management program. Approximately 6,160 acres of public land designated as administrative stock trails will be retained.

Predator control will continue in accordance with the Rock Springs District Animal Damage Control Plan.

No herds of wild and free-roaming horses will be maintained in the Kemmerer FO.

Allotments within the Kemmerer FO are categorized and prioritized. Allotments are categorized as “I” (improvement), “C” (custodial), and “M” (maintain). These categories may change as management actions are implemented and new issues are discovered.

Forage will be produced for livestock grazing and, at the same time, other resource values will be protected or enhanced. The overall objective will be to improve range condition on “I” allotments and to maintain range condition on other allotments. A long-term increase of 31,901 AUMs, for a total of up to 193,901 AUMs could be realized through management actions. Any forage realized increases will be distributed among various resource uses to achieve overall management objectives.

The “I” category allotments will have the first priority for the funding and implementation of range improvements. Maintenance of range improvements will be assigned to the benefiting user. Partial fencing may be required around some reservoirs to allow establishment of shoreline vegetation.

Forage increases will be allocated to meet allotment objectives for all competing resources. In addition to providing for stability and growth in the livestock industry, forage increases will be allocated to meet the WGFD’s wildlife population level objectives, as well as applicable watershed and soils objectives.

Vegetation manipulation projects will be proposed on up to 82,610 acres. Vegetation manipulation will be designed to minimize adverse impacts to wildlife habitat and to improve it, whenever possible. WGFD will be consulted in advance on all vegetation manipulation projects.

Cooperative management plans with the USFS may be developed on the Trespass Creek, Hobble Creek, Pole Creek, and Inchauspe allotments.

Approximately 4,500 acres of unallotted public lands that support approximately 646 AUMs could be made available for grazing. However, some of these lands may be disposed of through the Lands program.

No conversion of sheep to cattle will be allowed in allotments with riparian problems without a plan to address riparian issues. Management actions and range improvements proposed would have to be in place before a conversion is authorized.

Riparian areas will be addressed on all "I" category allotments during the development of monitoring or allotment management plans. This objective will be established on allotments as riparian problems are identified and priorities for implementation are adjusted.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may affect foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Kemmerer RMP (1986), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Fish and Wildlife Habitat Management

Management Actions

Potential effects to fish and wildlife habitat will be evaluated for each project by considering details of the proposed project, including proximity, intensity of activities, timing and duration, and sensitivity of fish and wildlife habitat near the proposed project. Management actions will be directed toward maintaining or improving riparian habitat condition by minimizing impacts: from surface disturbing activities in or near the riparian zone through the use of avoidance; by crossing on temporary or permanent bridges or culverts; and through the reclamation to promote native riparian vegetation.

Water for antelope, sage grouse, and livestock will be provided in the Opal and Chrisum bench areas. Big game winter range will be improved using mechanical treatment, burning, or other vegetation manipulation methods. Seasonal closures for motorized vehicles may be used to protect big game winter range.

Management actions in riparian areas and wetlands will include measures to preserve, protect, and if necessary, restore natural functions. The objectives will be to minimize the degradation of stream banks and the loss of riparian habitat. Riparian areas in the Thomas Fork drainage will be managed to re-establish riparian/willow vegetation. Wetland areas will be improved for waterfowl production and sage grouse brood rearing. Stream improvement practices to improve riparian and wetlands areas for fisheries habitat will be implemented.

No activities that would jeopardize the continued existence of threatened and endangered species will be allowed in habitat for those species. WGFD and USFWS will be contacted prior to implementing projects that may affect habitat for threatened and endangered species. If a "may affect" situation is identified, a biological assessment will be prepared and formal consultation with USFWS will be initiated.

The objectives of the Woodruff Narrows mitigation plan will be to improve riparian habitat used as a bald eagle communal winter roost and to mitigate possible habitat loss from the construction of low head hydropower plant. The objectives of the proposed Kemmerer Riparian HMP will be to complete an inventory of potential fisheries habitat, and to prioritize and implement restoration efforts. Its main goals will be to improve bank stability and riparian vegetation, to reduce sedimentation, and to increase fisheries habitat.

Inventories to locate important wildlife habitat will be conducted as funds are available. Inventories will be conducted to provide baseline data for a proposed management action, such an HMP, or to provide information in response to other program activities. Important wildlife habitat will be monitored to determine seasonal habitat use and to identify areas in need of habitat improvement.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife habitat management actions, as presented in the Kemmerer RMP (1986), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Recreation Management

Management Actions

Management activities will ensure the continued availability of outdoor recreation opportunities sought by the public or private entities. Additional goals associated with this prescription include protecting resources, meeting legal requirements for visitor health and safety, and mitigating resource user conflicts involving recreation.

Recreation area management plans (RAMPs) will be developed for prime areas of recreation potential. These include the Raymond Mountain Area, Pine Creek, Dempsey Ridge, Commissary Ridge, Upper Hams Fork, and Upper Smith's Fork areas.

Areas with recreation potential will be managed to protect recreation values. The recreation potential for future development will continue to be monitored, evaluated, and updated. When proposed actions for other programs are evaluated, the sensitivity and potential of recreation resources in the affected area will be considered.

Visual resources will continue to be evaluated as part of activity and project planning. Visual resource management (VRM) classes will be updated as situations change so that appropriate baseline information is included in project level planning. Large, long-term facilities will be required to be colored to blend with the natural environment when this is not in conflict with safety or with the purpose for which the facility has been designed.

Most of the Kemmerer FO (98 percent) will be designated "limited" to existing roads and trails except for necessary tasks. The entire Kemmerer FO will be open to snowmobile use, with the exception of big game winter ranges.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with recreational management and use have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation resource management actions, as presented in the Kemmerer RMP (1986), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to cause bald eagle harassment, displacement and to disturb or destroy suitable nesting and communal winter roosting habitats.

Land Management

Management Actions

Authorizations in the Lands Program will be conditioned to avoid undue adverse impacts to other important resource values and sensitive areas. The restrictions identified below are related to the resources to be protected. They are not all-inclusive. Use restrictions on dates, distances, etc., may be shortened or lengthened depending on the needs of a specific situation. For example, if a

date for restricting activity should be extended to protect a species in a certain year, the date may not be extended. Conversely, if a restriction serves no purpose in a certain year, it may not be imposed.

The restrictions and mitigation measures pertaining to the bald eagle are presented here. Refer to the RMP for a complete description of these measures.

During consultation with the U.S. Fish and Wildlife Service, the following stipulations to protect bald eagles and peregrine falcons and their habitat were developed:

- A "no surface occupancy" restriction will be applied to bald eagle winter roosting areas. In addition, a one mile buffer zone around bald eagle winter roost sites will be closed from November 1 through April 1.

- If any active bald eagle or peregrine falcon nests are found, no activity or surface disturbance will be allowed for up to a ¾ mile radius from an active nest from February 1 through August 15. A nest site will be considered active if it has been used within the past three years. Actual distances and dates will vary based on topography, species, season of use, and other pertinent factors.

Offsite mitigation will be considered on all larger surface disturbing activities in big game crucial winter range areas and other sensitive wildlife habitat areas. The requirement for offsite mitigation will be applied on a case-by-case basis depending on the type and duration of the disturbance and the sensitivity of the area affected. Offsite mitigation will generally not be required for exploratory wells or other short-term disturbances, unless cumulative impacts become a concern. Plans for offsite mitigation will be required on a site-specific basis and could include prescribed burning, brush-beating, and other methods designed to increase the productivity of wildlife habitat.

Rights of way will be issued incorporating surface reclamation stipulations (see Soils Management) and other mitigating measures. Restrictions and mitigating measures may be modified on a case-by-case basis. All existing communication site rights of way will be modified to allow subgranting to new users. Access will be minimized in crucial wildlife habitat. If linear facilities will follow the same right of way for all or part of the route, they will generally be required to be constructed so that only one reclamation effort is required. This will generally mean that they will be constructed either concurrently or during the same field season. To facilitate revegetation of non-linear rights of way sites, the sites will be fenced (where feasible) to prevent livestock grazing from impacting new vegetation. Attempts will be made to block linear rights of way to vehicle use.

Temporary use permits (TUPs) will be considered for areas to be used only during construction or for other short-term needs.

Recreation and public purposes (R&PP) leases and patents will be considered as the need arises. Present BLM policy is to make public land available and to assist local governments to develop the necessary paperwork to accomplish the issuance of R&PP leases and patents.

Land exchanges will be considered as opportunities arise. Analyses completed in connection with exchange proposals will include a determination of whether the public interest will be served by completing the exchange. The determination will consider better federal land management and the needs of state government and local communities (e.g., economy, community expansion, recreation).

When withdrawals that are not necessary to protect public land values are revoked, the public lands will be restored to full operation under the public land and mineral laws. If a withdrawal is revoked, the area would be managed consistent with the objectives of this RMP.

New withdrawals will be considered as the need arises. An analysis will be completed to determine how present land users will be affected by the proposed use and the compatibility of existing and potential resource uses with the proposed site.

During oil and gas operations, roads will be considered for long-term support of all programs. Access will be sought across private land if a need is identified. Legal access will be sought to areas that will be intensively managed for timber production. Temporary easements may be used for specific actions for short time periods. High priority areas for access acquisition will be the Meeks Cabin area in support of the forestry program. Legal access to the mouth of Raymond Canyon will be sought to provide access to the mountain. Other needs will be identified as site-specific management plans are developed (e.g., for areas where RAMPs will be prepared or where recreation potential has been identified).

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Implementation of land resource management actions, as presented in the Kemmerer RMP (1986), is **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Forestry Management

Management Actions

Public demand for forest products will be met, while perpetuating existing timber stands and increasing the size of timbered areas. Requirements, similar to those presented for surface disturbing activities, may be imposed to meet other resource management objectives.

Forest management practices will be directed to prevent insect or disease infestations.

Clearcuts will generally be limited to no more than 25 acres in size. Exceptions on this acreage limitation may be made (e.g., for insect or disease infestations). Clearcuts will be laid out considering stand characteristics, topography, and other resource values.

Areas of new seedling establishment will be inventoried at specified intervals; areas not meeting stocking standards will be reforested using native species. Silvicultural treatments will be identified for specific areas to improve the stands. Treatment may include burning, chaining, cutting, or shearing. Rehabilitation surveys will be conducted on old logging and fire areas to determine if regeneration is sufficient to ensure proper stocking of a new timber stand. The effects of grazing will also be assessed and remedial action (e.g., fencing) may be taken to protect reproduction. The objective is to achieve a fully stocked stand within 15 years. When, prior to 15 years, it is apparent that natural regeneration will not result in a fully stocked stand and if funding is available, the area will be planted. Natural regeneration of a fully established stand normally takes from 5 to 9 years.

Road development will be kept to a minimum. Road locations and specifications will be selected to meet transportation needs, safety requirements, and consideration of other resource values. Timber harvest and associated activities will be planned in a sequence that will be least disruptive to wildlife. An engineering analysis will be required where road grades exceed 10 percent. Roads will be routed away from areas that are likely to slump or slide. Cross drain culverts, water bars, or ditches will be installed, as needed to prevent erosion or washing away of the road. Temporary roads will normally be rehabilitated and closed after logging.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Forest management actions will occur in upland coniferous forests. In the Kemmerer FO, bald eagles are typically associated with cottonwood forests of riparian habitats for nesting and communal winter roosting and open upland habitats for foraging. These bald eagle habitats are distinct from the coniferous habitats that are subject to forest management actions. Therefore, bald eagles are not expected to experience detrimental effects as the result of forest management actions.

Determination

Implementation of forest management actions, as presented in the Kemmerer RMP (1986), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the extremely low likelihood that forest management activities may affect the bald eagle.

Cultural and Historic Management

Management Actions

For most surface-disturbing activities, an inventory to locate and evaluate cultural resources (including historic and prehistoric sites) will be performed. If potential impacts to significant cultural resources are identified, the preferred strategy will be to avoid a cultural site, preserving it and the data it contains, in situ. Site avoidance is usually attained by project redesign. When avoidance is not feasible, other mitigation strategies may include: mapping and collecting of surface material; evaluative testing (small-scale excavation) to determine the nature of the subsurface materials; data recovery through mitigative excavation (larger scale); photography; archival or other records research; and analysis and report preparation.

The objective will be to protect the trails from visual intrusion and surface disturbance and to maintain the integrity of setting. Management of historic trails will emphasize preservation coupled with increased visitor use and appreciation of the trail system. To provide a protective corridor for the trail; generally visual intrusion and surface disturbance will be restricted or prohibited within 1,320 feet from either side of an historic trail (may depend on topography and existing surface disturbance), or within the visual horizon of the trail, whichever is closer.

All significant historical, archaeological, and cultural sites will be protected or mitigated. Erosion on Johnston Scout Rock will be stabilized. Title to Emigrant Springs (Slate Creek) will be sought. Interpretive signing will be developed. The trail register will be stabilized and preserved. A campground at Emigrant Springs (Dempsey) will be considered as a part of total development. Interpretive signs will be placed at the Alfred Corum gravesite and at nearby ruts of the Oregon Trail. Cultural resources management plans will be developed for significant sites. The need for such activity plans will be determined on a case-by-case basis.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of cultural resource management actions, as presented in the Kemmerer RMP (1986), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Fire Management

Management Actions

The Kemmerer FO is divided into nine fire management areas that share common management objectives, topographic boundaries, or land ownership patterns. Fire suppression efforts within these areas will be driven by property threatened or resource benefits derived. All new developments that could be damaged by wildfire will be required to have a fuel break stipulation to prevent the spread of fire from adjacent vegetation to the development.

If, due to potential resource damage, a need for full suppression is clearly indicated (Option I), suppression procedures are initiated. Where there are limited benefits to be derived from fire (Option II), the costs of suppression versus expected benefits are analyzed. This may result in limited suppression efforts. When fire may result in important resource benefits (Option III), four primary parameters will be evaluated to determine if fire would result in potentially unacceptable

impacts or in conditions that would make it difficult to control the fire. If at some point, one or more of the parameters becomes unfavorable, management of the fire would revert to Option I (full suppression). These parameters include: 1) threat to persons or property, 2) adverse weather conditions or forecast, and 3) resource impacts. These parameters will be monitored throughout the course of the burn.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Kemmerer RMP (1986), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, communal winter roosting, and foraging habitats. In addition, there are no mitigation measures included in this action that would minimize potential for effects to bald eagles.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Kemmerer RMP management actions.

TABLE 5: SUMMARY OF DETERMINATIONS FOR THE KEMMERER RMP

Resource	Determination
Air Quality	Not likely to adversely affect, due to insignificant effects
Geology and Minerals	Likely to adversely affect
Soils	Likely to adversely affect
Water	Not likely to adversely affect, due to beneficial effects
Livestock and Rangeland	Likely to adversely affect
Fish and Wildlife	Likely to adversely affect
Recreation	Likely to adversely affect
Land	Likely to adversely affect
Forestry	Not likely to adversely affect, due to discountable effects
Cultural and Historic	Likely to adversely affect
Fire	Likely to adversely affect

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Kemmerer FO. Potential effects that could affect bald eagles or their habitats in the Kemmerer FO include the following:

- Existing and proposed wind farms
- Hard rock mining (including coal, trona, and phosphates)
- Livestock grazing on private lands
- Non-federal oil and gas fields and related energy development
- Continued vehicle collisions (particularly in Nugget Canyon)

Implementation of the Kemmerer RMP would not change any potential effects to the bald eagle that may result from current non-federal actions.

LANDER FIELD OFFICE

The *Record of Decision for the Lander Resource Management Plan* (RMP) was signed in June 1987 (BLM 1987a). The Lander FO occupies portions of Hot Springs, Fremont, Sweetwater, Natrona, and Carbon counties in central Wyoming. The Lander FO includes approximately 2.5 million acres of surface lands and 2.7 million acres of federal mineral estate.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Lander FO and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

One bald eagle nest is currently known to occur in the Lander FO (Redder 2002) (**Figure 10**). This nest is located in riparian habitat associated with the Wind River. The nest occurs on lands administered by the USFS. No nests are known to occur on lands administered by BLM (Breckenridge 2002).

Communal Winter Roosting Habitat

Although specific roost locations have not been identified or labeled, bald eagles are expected to roost in suitable habitats along the Sweetwater, Wind River, Little Popo Agie, and North Fork Popo Agie rivers in the Lander FO. Bald eagle use generally occurs on private lands but eagles are occasionally observed roosting on public lands along these rivers (Breckenridge 2002).

Foraging Habitat

No concentrated foraging habitats are known to exist within this FO (Breckenridge 2002). Bald eagle use has been observed on winter ranges of pronghorn antelope, mule deer, and elk where they feed on winter killed big game.

Existing Conservation Measures

The following section presents measures included in the Lander RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) “BLM will continue to work closely with the Wyoming Game and Fish Department in all matters affecting fish and wildlife resources” (BLM 1987, p. 4).

(b) “ORV management will focus more intensive management on those management units having crucial wildlife values” (BLM 1987, p. 9).

(c) “New oil and gas leases issued in areas rated as having moderate, low or no potential for the occurrence of oil and gas reserves will include a no-surface-occupancy restriction to protect water quality, fisheries, riparian areas, sage grouse leks, steep slopes, threatened and endangered species, significant cultural sites, sensitive visual resources, and elk and moose crucial winter range. In addition, seasonal restrictions will be applied to the leases to protect important wildlife habitat areas” (BLM 1987, p.27, 40, 43, 45, 50, 60, and 69).

(d) "Crucial wildlife areas will be critically examined before placement of any range improvement projects that can result in increased livestock use in these areas. Some crucial wildlife areas will require special intensive management actions" (BLM 1987, p. 80).

Analysis of Proposed Management Actions and Effects

The Lander RMP (1987) describes each management prescription applied within the FO. This assessment addresses the general management decisions presented in the RMP and does not specifically address each resource within the 10 management units that are included in the Lander FO. The following text summarizes the activities and any mitigation measures associated with each management prescription that specifically apply to the bald eagle. The effects analysis and determination for each management action is based solely on the description of each management action provided in the RMP and any established guidelines that may apply (for example *Wyoming BLM Mitigation Guidelines for Surface-Disturbing and Disruptive Activities*). Mitigation measures not included as part of the RMP will be presented in the Conservation Measures section of this document. These measures are not considered in the effects determination because they are not included as part of the action. Refer to the Lander RMP for a complete description of each management prescription (BLM 1987a).

Energy and Minerals

Management Action

Public lands will be made available for oil and gas leasing and development to the maximum extent possible, while giving due consideration to the protection of other resource values. The potential for the occurrence of oil and gas and the significance and sensitivity of other resource values present in the FO were used as management tools to aid in the determination of detailed management prescriptions for each management unit.

Less than one percent of the slightly more than 2.7 million acres of federal mineral estate within the FO will be closed to leasing. All but 12,000 acres of the open acreage will be managed under a management prescription that will allow for enhanced management of the oil and gas resources by being less restrictive of oil and gas development related to other surface resource values in known geological structures and areas rated as having a high potential for the occurrence of oil and gas. This would be accomplished over the life of this plan as analyses are done to determine where the restrictions can be modified and still avoid significant impacts to other resources. In addition, as new information on the potential occurrence of oil and gas in any given area is obtained or new discoveries of oil and gas reserves are made, the potential rating for the area will be revised to reflect new data. New leases issued in these areas will be issued under the management prescription for that new rating.

Oil and gas leases issued within the FO will be conditioned with stipulations to protect other important resource values. These restrictions will provide needed protection to other resources and at the same time allow for as much opportunity as possible to explore for and develop the oil and gas reserves within the FO.

Figure 10: Lander Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

Geophysical activities associated with oil and gas exploration will generally be restricted in the same manner as other oil and gas exploration and development activities. Geophysical activities do not necessarily have the same impacts on surface resources as do other oil and gas exploration activities, but because of the wide variety of methods and the even wider variety of impacts associated with them, it will be impossible to predict all possible combinations of methods and resources potentially impacted. If a particular method of geophysical exploration could be conducted within the constraints necessary to protect other resources, it will be allowed.

All federal lands within the FO will be open to locatable mineral exploration and development unless specifically withdrawn or segregated from appropriation under the mining laws. At the present time, approximately one percent of the federal mineral estate within the FO is closed to locatable mineral exploration and development. The portion of the FO that will be closed to locatable mineral exploration and development will increase by 30,000 acres to approximately two percent of the total federal mineral estate within the FO. The additional acreage proposed for withdrawal will be withdrawn to protect crucial wildlife habitat in the East Fork Elk Winter Range and Whiskey Mountain Bighorn Sheep Winter Range, and the remaining acreage will be scattered throughout the FO in small tracts primarily for the protection of significant cultural and historical resources.

In addition, in an attempt to minimize the acreage withdrawn to protect significant surface resource values, the plan will require that plans of operation be approved for all exploration and mining operations in certain areas designated as ACECs. Notices of intent usually allowed for operations disturbing five acres or less will not be allowed. This will provide for a higher degree of protection for significant surface values, while still providing maximum opportunity to explore and develop locatable mineral resources within the FO.

Prospecting, exploration and development, and leasing of phosphate resources will be allowed. The phosphate deposits are located in a belt running along the northeast flank of the Wind River Range and extend into three different management units. Phosphate activities within the Red Canyon and Lander Slope Management Units will require stringent stipulations and mitigation measures to protect surface-resource values. The Beaver Creek Management Unit, which contains approximately one-half of the known phosphate resources will remain open to exploration, development, and leasing with fewer restrictions than will be the case in the Red Canyon and Lander Slope Management Units. In the Red Canyon and Lander Slope Management Units, these restrictions will adversely affect the economic recovery of the phosphate resource.

Exploration and development of other minerals such as sand and gravel, building stone, and other common variety mineral materials will be provided on a demand basis and consistent with the limitations and restrictions imposed on oil and gas, locatable minerals, and phosphate exploration and development within the FO.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included in the RMP for this resource.

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in

bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of geology and mineral management actions, as presented in the Lander RMP (1987), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Fish and Wildlife

Management Actions

Improvement of aquatic and riparian habitats for fish, beaver, moose, and many other animals will receive to priority in the South Pass and Beaver Creek Management Units, high priority in the Green Mountain Management Unit, and special attention in the Red Canyon Management Unit. Aquatic and riparian habitat management plans will be developed for an area encompassing parts of the upper Sweetwater River and Beaver Creek drainages and for the Green Mountain area.

Improvement of important big game ranges will receive high priority. The use of prescribed burning, cutting, thinning, planting, seeding, pitting, herbicide treatment, or other appropriate methods will be employed. Priority areas for action will be the Red Canyon and Lander Slope Management Units for elk and other big game habitat, the Whiskey Mountain unit for bighorn sheep, the southwest part of Beaver Creek unit and the South Pass unit for moose and mule deer, and the Sweetwater Rocks portion of the Gas Hills unit for mule deer. Terrestrial habitat management plans will be developed for the Red Canyon and Lander Slope units, the Sweetwater Rocks, and the south-central part of the Beaver Creek unit.

BLM will continue to work closely with the WGFD in all matters affecting fish and wildlife resources. Habitat management plans will be developed in cooperation with WGFD.

Objectives for some wildlife habitat management actions will be incorporated into other activity plans such as timber management, grazing allotment management and development, or cooperative management plans. This will occur where limited or specialized fish or wildlife objectives could be accomplished through guidance provided by these plans without developing a full-scale, overlapping habitat management plan.

BLM will cooperate with WGFD, interested sportsmen, conservation groups, and adjacent landowners in efforts to develop a workable bighorn sheep reintroduction program for Sweetwater Rocks area.

Development of small-scale, simple, or routine habitat improvement projects and maintenance of useful existing projects will be continued throughout the FO. Such action will be subject to normal interdisciplinary environmental review, and budgetary and management constraints.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included in the RMP for this resource.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife habitat management actions, as presented in the Lander RMP (1987), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Forest Management

Management Actions

Most of the timber management in the FO will occur in the Green Mountain Management Unit. Small volumes may be offered from South Pass and Dubois units and larger volumes from the Lander Slope unit.

Minor forest products will continue to be sold from timbered areas on a demand basis, depending on resource management objectives. Most fuel wood cutting will occur in the Green Mountain Management Unit.

Sawtimber volumes offered in the Green Mountain Management Unit will be approximately two million board feet (MMBF) per year and minor forest product volumes will be 1.5 to 2 MMBF per year. This will be undertaken for 10 years, or until the majority of the larger timber has been salvaged.

From the Lander Slope unit, approximately 10 MMBF will be offered in a large sale, that will take up to five years to harvest. After completion of this sale, logging activity will cease for 10 years, and another sale could be offered. The primary objective of the harvesting program will be to achieve management of the timber resources by salvaging the dead and dying timber and regenerating the harvested areas. However, other resource objectives such as habitat enhancement will be integrated into management plans to enhance these other values.

These will not be sustained-yield harvests, but will be salvage of the dead and dying timber and will eventually create an uneven-aged forest that will have many benefits, including enhancement of wildlife habitat. Individual clear-cut areas, in all cases, will be limited to 25-acre blocks.

Prescribed burning techniques will be included in management plans for conifer and aspen stands to achieve multiple resource objectives. Standard and special provisions will be employed on all sale and burns to achieve management objectives. Standard and special provisions will be

employed on all sales and burns to achieve management objectives. The size of prescribed burns will be determined on an individual project basis. Regeneration of all harvested and burned areas will be assured, either through natural or artificial regeneration.

Forest management practices in timber stands will be undertaken as needed, depending on funding, to assure optimum growth conditions in all stands.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included in the RMP for this resource.

Effects Analysis

Forest management actions in the Lander FO will primarily occur in upland coniferous forests. In the Lander FO, bald eagles are typically associated with cottonwood forests of riparian habitats for nesting and communal winter roosting and open upland habitats for foraging. These bald eagle habitats are distinct from the coniferous habitats that are subject to forest management actions. However, some timber management activities may occur near bald eagle habitats, including drainages along larger riparian areas. Therefore, bald eagles could experience detrimental effects as the result of forest management actions where these actions occur in relatively close proximity to bald eagle habitats.

Determination

Implementation of forest management actions, as presented in the Lander RMP (1987), is **likely to adversely affect** the bald eagle. This determination is based on the possibility that forest management activities may occur near bald eagle habitats and therefore, could affect the bald eagle.

Land Ownership Adjustments and Utility Systems

Management Actions

The majority of the 2.5 million areas of public lands in federal ownership will be retained. One hundred seventy-two tracts, encompassing approximately 24,000 acres, meet the basic criteria for disposal. Based upon the analysis in the Lander RMP/EIS, 108 of these tracts, encompassing 12,500 acres, could be considered for future disposal through either sale or exchange.

Proposals for sale or exchange received in the future will be considered on case-by-case basis. If a certain proposal is determined to be consistent with objectives of the RMP, it could be approved without a planning amendment.

Leases and disposals will continue to be used to meet the needs of local and state governments.

Major utility and transportation systems will be located to make use existing corridors whenever possible, to provide for cost-efficient routes and to provide for protection of other resource values such as scenery and wildlife. Most of the area will be open for location of major utility systems. However, areas with the most potential conflicts have already been identified as areas to avoid. The avoidance areas will be areas where rights of way may be granted only when no feasible alternative route or designated rights of way corridor is available. These areas include Whiskey Mountain Bighorn Sheep Winter Range, the East Fork Crucial Elk Winter Range, the Dubois Badlands, the Lander Slope, Red Canyon, South Pass, Sweetwater Canyon, the Sweetwater Rocks, and ¼ mile or the visible horizon, whichever is less, on each side of the Oregon/Mormon Pioneer National Historic Trails.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included in the RMP for this resource.

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Management actions associated with recreation and public use are expected to consider other resource values when evaluating recreational and public use opportunities. Such considerations will limit recreational opportunities within known bald eagle nesting and communal winter roosting areas, but may occur in the diverse terrestrial foraging habitats available in the Lander FO. Recreational and public use of bald eagle terrestrial foraging habitats may cause eagles to avoid or abandon these habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Activities associated with land ownership adjustments and utility systems management, as presented in the Lander RMP (1987), are **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Recreation Management

Management Action

Management and maintenance will be provided at seven existing recreational sites, including Atlantic City, Big Atlantic Gulch, and Cottonwood campgrounds; Split Rock and Devil's Gate interpretive sites; and Wild Horse Point Overlook and Castle Gardens picnic areas. The Split Rock and Devil's Gate interpretive sites are included in the Oregon/Mormon Pioneer National Historic Recreation Management Plan.

An interpretive marker will be added for the Red Canyon National Landmark overlook. Hazard reductions will be implemented and maintained on Green Mountain and South Pass. Plans for resource protection and maintenance of dispersed recreational opportunities and settings in the South Pass Historic mining area will be provided in a recreation management plan.

BLM will continue to monitor recreational use throughout the FO. Area personnel will supervise recreational use and provide enforcement of recreation-oriented regulations and special designations. Monitoring and use supervision will be accomplished by patrolling high-use areas and contacting users in the field. Special efforts will be made to ensure compliance with the terms

of special recreation-use permits, authorizing commercial guide/outfitter services, permits for tours of the Oregon/Mormon Pioneer National Historic Trails, and special designations dealing with recreation such as 14-day camping limit on public lands and off-road vehicle designations. Quotas will be established for commercial hunting camps in the Green Mountain, Lander Slope, Red Canyon, and Whiskey Mountain Management Units.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included in the RMP for this resource.

Effects Analysis

Actions associated with recreational management and use have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation resource management actions, as presented in the Lander RMP (1987), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to cause bald eagle harassment, displacement and to disturb or destroy suitable nesting and communal winter roosting habitats.

Off-Road Vehicles (ORVs)

Management Actions

Existing ORV designations completed in 1981 on one-half of the FO will be continued. Designations will be completed on the remaining areas of public lands. ORV management will focus more intensive management on those management units having crucial wildlife values, significant visual resources, high watershed sensitivity, and outstanding natural character. Intensive management will limit ORV use to designated roads and vehicle routes and impose seasonal closures (from approximately December through June) on areas or roads where vehicle use is totally incompatible with other resource values. ORV use in the remainder of the FO will be limited to existing roads and vehicle routes, except for the performance of necessary tasks. Examples include picking up big game roadkills, repairing range improvements, managing livestock, mineral activities where surface disturbance does not total more than five acres.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Much of the Lander planning area is not subject to open ORV use. ORV use in the planning area is best characterized as limited in frequency and intensity. ORV management and use in the Lander planning area is not expected to result in detrimental effects to bald eagle behavior or nesting, communal winter roosting, or foraging habitats.

Determination

Implementation of ORV management actions, as presented in the Lander RMP (1987), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that effects from ORV use will result in take.

Cultural and Natural History Management

Management Action

Management actions will protect and maintain important cultural resources located in the Lander FO. Important resources include the Oregon/Mormon Pioneer National Historic Trails and associated sites, South Pass Historic Mining Area, Castle Gardens, Beaver Rim, Red Canyon National Natural Landmark, and the Warm Springs Canyon flume, natural bridge, and geyser will receive enhanced protection. A management plan specific to the Oregon/Mormon Pioneer Trail has been prepared and should be referred to for specifics of this plan.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of cultural resource management actions, as presented in the Lander RMP (1987), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Fire Management

Management Action

Approximately 2 percent of the lands administered by the BLM in the Lander FO will be under full fire suppression, with no equipment restrictions. Full fire suppression management has the objective of suppressing all wildfires as quickly as possible with all available resources. Approximately 60 percent of the lands administered by the BLM will have full suppression of wildfires with limited or restricted use of heavy equipment. This does not preclude the use of heavy equipment, such as bulldozers, but does limit their use on initial attack and requires fire authorities to analyze a fire situation critically before committing heavy equipment to a fire. Approximately 38 percent of the public lands in the FO will be under limited suppression of wildfires. There will be no initial attack on the fire and an observer will monitor a wildfire to determine if management objectives are met. Suppression of wildfire will occur when the fire (a) exceeds or has the potential to exceed the size specified in a predetermined plan, (b) threatens private property, (c) threatens man-made structures, or (d) threatens human life. Prescribed burns will be allowed in all management units.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Lander RMP (1987), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, communal winter roosting, and foraging habitats. In addition, there are no mitigation measures included in this action that would minimize potential for effects to bald eagles.

Access Management

Management Action

Access roads no longer needed would be rehabilitated, as outlined in the RMP. Negotiations with private landowners concerning BLM access easements will be proposed for areas where public or administrative access will be needed.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Development of new and expansion of existing access to lands administered by BLM may detrimentally influence bald eagle behavior or alter suitable nesting, communal winter roosting, or foraging habitats. Potential effects to bald eagle behavior are likely to be limited in nature and not have lasting negative effects. Alteration of habitats is expected to be limited to upland habitats. The localized nature of potential disturbance to local habitats related to access are not expected to result in changes to foraging habitats that will have long-term effects to bald eagles or their prey.

Determination

Implementation of access management actions, as presented in the Lander RMP (1987), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that activities associated with creating or expanding access will result in adverse effects to the bald eagle.

Soils, Water, and Air Management

Management Action

The public lands will be managed in a manner that will protect and improve the quality of the soil, water, and air resources associated with the public lands. This will include project and plan review to facilitate proper consideration of these resources and that enhancement opportunities area not overlooked. Also, monitoring of soil erosion, water quality, and air quality will be conducted, as necessary, to track the effectiveness of specific projects and management schemes.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management of soil, water, and air resources is not expected to detrimentally impact bald eagle behavior or suitable nesting, communal winter roosting, or foraging areas. Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may maintain or improve the condition of some habitats and therefore may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Determination

Implementation of soil, water, and air resource management actions, as presented in the Lander RMP (1987), is **likely to adversely affect** the bald eagle. This determination is based on the potential for implementation of soil management actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Livestock Grazing Management

Management Action

The Lander FO has two grazing study areas: Green Mountain and Gas Hills. Rangeland program summaries (RPSs) for these study areas are included in the RMP. Grazing allotments have been grouped in three categories: M (maintain), C (custodial), and I (improve). For each category, recommendations were made for an intensity of grazing management, including multiple-use resource management objectives, range improvement and monitoring needs, and actions needed to improve and maintain rangeland condition and productivity. Under this RMP, present management will continue until monitoring results are available. Management actions based on all available data will then be implemented in the allotments, beginning with those needing the most improvement.

There are 291 allotments in the Lander FO. Category M allotments comprise 29 percent of the allotments and 27 percent of the acreage in the FO. The principal objective of these allotments is to maintain or improve existing resource conditions and reduce or eliminate conflicts. Category C allotments comprise 28 percent of the allotments and 4 percent of the acreage in the FO. The principal objective for Category C allotments is to prevent deterioration of the current resource conditions by managing the lands in a custodial manner. Category I allotments comprise 43 percent of the allotments and 69 percent of the acreage in the FO. The principal objective for Category I allotments is to improve existing resource conditions and reduce or eliminate conflicts.

Management decisions affecting grazing use will be made when monitoring data are sufficient to support those decisions. They may include changing livestock numbers, periods of use, or a combination of both. Monitoring will be a continuing process to assure that any changes in

grazing use accomplish the objectives. If monitoring studies indicate a need to further modify periods of use, livestock numbers, class of livestock, or grazing systems, these adjustments will be made after consultation with the affected livestock operators and any other affected parties.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may affect foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Lander RMP (1987), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Wilderness Management

Management Action

Three management units in the Lander FO are wilderness study areas (WSAs). These units encompass six WSAs totaling 48,000 acres and include Sweetwater Canyon, Sweetwater Rocks (four WSAs), and Cooper Mountain.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with wilderness management will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effect to bald eagles by limiting harassment and disturbance to suitable nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the wilderness management actions, as presented in the Lander RMP (1987), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and maintain or protect suitable bald eagle habitats.

Areas of Critical Environmental Concern

Management Action

Approximately 117,000 acres, representing 4.7 percent of the Lander FO will be designated as areas of critical environmental concern (ACECs) and will require intensive management of all activities that will disturb the surface in order to protect important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and provide safety from natural hazards. The following areas will be designated ACEC in the Lander FO:

- Lander Slope Management Unit (25,000 acres of federal surface)
- Red Canyon Management Unit (15,000 acres of federal surface)
- Whiskey Mountain Management Unit (4,000 acres of federal surface)
- East Fork Management Unit (1,000 acres of federal surface)
- Dubois Badlands Management Unit (5,000 acres of federal surface)
- Majority of the South Pass Management Unit (12,000 acres of federal surface)
- Portion of Green Mountain Management Unit (18,000 acres of federal surface)
- Beaver Creek Management Unit (7,000 acres of federal surface)

Significant sites and segments along the Oregon/Mormon Pioneer Natural Historic Trails will be designated an ACEC and are located within the Beaver Creek and Gas Hills Management Units. These sites and segments include approximately 22,600 acres of protective corridor on surface lands administered by BLM; approximately 3,100 acres of current withdrawal or proposed withdrawals; and approximately 7,000 acres of trail corridor on split estate lands. There are approximately 780 acres of partially impacted sites and segments on surface lands administered by BLM that are included in the ACEC but will be considered on a case-by-case basis and approximately 450 acres on split estate.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with ACECs could result in detrimental impacts to bald eagle behavior or their habitats, because of actions that may occur in these areas. These actions could also result in positive effects to bald eagles by limiting harassment and disturbance to potentially suitable nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the ACEC management actions, as presented in the Lander RMP (1987), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential that actions allowed in ACECs could cause harassment and displacement of bald eagles and their habitats.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Lander RMP management actions.

TABLE 6: SUMMARY OF DETERMINATIONS FOR THE LANDER RMP	
Resource	**Determination**
Energy and Minerals	Likely to adversely affect
Fish and Wildlife	Likely to adversely affect
Forest	Likely to adversely affect
Land Ownership and Utilities	Likely to adversely affect
Recreation	Likely to adversely affect
Off-Road Vehicles	Not likely to adversely affect, due to discountable effects
Cultural and Natural History	Likely to adversely affect
Fire	Likely to adversely affect
Access	Not likely to adversely affect, due to discountable effects
Soils, Water and Air	Likely to adversely affect
Livestock Grazing	Likely to adversely affect
Wilderness	Not likely to adversely affect, due to beneficial effects
ACECs	Likely to adversely affect

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Lander FO. Potential effects that could affect bald eagles or their habitats in the Lander FO include the following:

- Subdivision development along rivers (especially along the Wind River near Dubois) that results in habitat fragmentation
- Sand and gravel operations along river corridors
- Livestock grazing on private lands
- Timber harvesting

None of these activities are situated near important bald eagle habitats on BLM-administered lands. However, certain components of these projects could directly or indirectly affect bald eagles or bald eagle habitats. Implementation of the Lander RMP would not change any potential effects to the bald eagle that may result from current non-federal actions.

NEWCASTLE FIELD OFFICE

The *Record of Decision and Approved Resource Management Plan (RMP) for the Newcastle Field Office* was signed in August 2000 (BLM 2000). The RMP provides the management direction for 292,168 acres of BLM-administered public land surface and 1,698,866 acres of federal mineral estate. The Newcastle FO (FO) occupies portions of Crook, Niobrara, and Weston counties in northeast Wyoming. There are also public lands in Nebraska that are administered by the Newcastle FO. These public lands are administered under the Nebraska Resource Management Plan and not the Newcastle RMP.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Newcastle FO and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Two bald eagle nests are currently known to exist within the Newcastle FO (**Figure 11**) (Lebsack 2002; Redder 2002; Van Fleet 2002). One nest is located on privately owned land and the other is on land administered by the state. These nests occur in riparian habitats associated with Lightening Creek. No nests are known to occur on lands administered by BLM.

Communal Winter Roosting Habitat

No communal winter roosting areas are known to exist within this FO (Lebsack 2002). Although no communal winter roosting areas are known to exist within this FO, the presence of bald eagles foraging in the FO during winter months indicates the potential for wintering roosts to exist in this FO.

Concentrated Foraging Habitat

No concentrated foraging habitats are known to exist within this FO. Much of the open terrestrial habitats are utilized as general foraging habitat by migrating and wintering eagles (Lebsack 2002).

Existing Conservation Measures

The following section presents measures included in the Newcastle RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) “Areas within 500 feet of 100-year floodplains, wetlands, or perennial streams on BLM-administered public lands are avoidance areas for surface-disturbing activities unless modified by the authorized officer” (BLM 2000, p. 10).

(b) “Seasonal restrictions may be applied in crucial wildlife habitats (for example, sage grouse strutting grounds/nesting areas, fish spawning beds, crucial big game winter ranges/parturition areas) as needed” (BLM 2000, p. 15).

(c) "Vegetation treatments will avoid bird nesting seasons and other times of the year when loss of cover or disturbance by equipment will be detrimental to wildlife. Projects that may affect threatened or endangered plants or animals will be postponed or modified to protect the presence of these species. In such cases, the BLM will consult with the U.S. Fish and Wildlife Service as required by the Endangered Species Act" (BLM 2000, p. 16).

(d) "To protect raptors and sage and sharp-tailed grouse during their nesting seasons, disruptive activity generally will not be allowed from February 1 through July 31" (BLM 2000, p. 18).

(e) "Surface-disturbing and disruptive activities associated with wildlife habitat management will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines" (BLM 2000, p. 19).

Analysis of Proposed Management Actions and Effects

The following planning decisions consist of objectives and management actions. The RMP decisions and related projects will be implemented through detailed and site-specific activity planning and any necessary environmental analysis. Specific uses of the public lands will be authorized based on the RMP decisions and completion of site- specific environmental analysis. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* will be applied to all surface disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and restrictions on surface occupancy restrictions that will minimize potential effects to bald eagles and their habitats. The management objectives and decisions for the Newcastle RMP are presented in the following sections. Refer to the Newcastle RMP for a complete explanation of each prescription.

Air Quality Management

Management Actions

The air quality management objectives are to maintain or enhance air quality, protect public health and safety and sensitive natural resources, and minimize emissions that could result in acid rain, violations or air quality standards, or reduced visibility. All BLM-administered public lands will be managed to maintain the air quality at the current prevention of significant deterioration (PSD) Class II standard. All BLM-initiated or authorized actions, such as the use of prescribed fire, will avoid violation of Wyoming and national air quality standards. Mitigation or conditional requirements will be applied to authorized actions and activities on a case-by-case basis to avoid air quality problems. These requirements could include, but are not limited to, limiting emissions, restricted spacing of project locations, and controlling dust from surface-disturbing activities. The BLM will coordinate with the Wyoming Department of Environmental Quality and the Environmental Protection Agency (EPA) on air quality standards and regulations as needed. The BLM will coordinate and cooperate with other federal and state agencies in monitoring and collecting air quality data.

Effects Analysis

Actions related to air quality management will not result in negative impacts to bald eagle behavior or habitats. Implementation of these management actions will likely result in maintaining or improving environmental conditions throughout the FO, which may have secondary benefits to the bald eagle and its prey.

Figure 11: Newcastle Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

Determination

Implementation of air quality management actions, as presented in the Newcastle RMP (2000), is **not likely to adversely affect** the bald eagle, due to **insignificant effects**. Air quality management efforts may result in positive effects to air quality and visibility that would be beneficial to bald eagles and their prey.

Cultural Resource Management

Management Actions

The cultural resource management objectives are to protect, preserve, interpret, and manage significant cultural resources; manage cultural resources for information potential, public and educational values, and conservation. Site-specific inventories for cultural resources will be required before the start of surface-disturbing activities. Adverse effects on significant resources will be mitigated, or the resources themselves will be avoided by surface-disturbing activities. Data will be collected on the nature and condition of significant cultural sites on public lands. Site protection measures will be initiated for significant sites as needed. Cultural resource mitigation plans will be developed for the more sensitive sites. Sites listed on the National Register of Historic Places (NRHP) will be protected. Suspected violations of the Archaeological Resources Protection Act will be investigated. The BLM will cooperate with other agencies and private landowners to identify and interpret historic trails. Areas within 0.25 mile, or the visual horizon, whichever is closer, of significant segments of historic trails that are listed on the NRHP, or that are eligible for listing on the NRHP, are avoidance areas for surface-disturbing activities. As appropriate, specific sites on public lands will be managed for their traditional Native American cultural values. Surface-disturbing and disruptive activities associated with permitted collection of cultural resources or stabilization of cultural sites or with constructing and using interpretive sites and facilities will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known bald eagle nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of cultural resource management actions, as presented in the Newcastle RMP (2000), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Fire Management

Management Actions

The fire management objectives are to effectively protect life, property, and resource values from wildlife and to use prescribed fire to achieve multiple use management goals. Suppression activities for wildfires will be conducted as described in the Eastern Wyoming Zone Fire Management Plan. Full suppression will be used on fires endangering human life or that spread to within 0.25 mile of state or private lands, structures and facilities, oil and gas fields, important riparian habitat, or other sensitive resources. Some methods of suppression will be restricted in sensitive areas. This may include, but is not limited to, restricting heavy equipment on cultural or historic sites. Fires in limited-suppression areas will be monitored to ensure they do not threaten human life, structures and facilities, state or private lands, oil and gas fields, important riparian habitat, or other sensitive resources. All wildfires will be evaluated to determine the need for rehabilitation or restoration measures. Restoration of burned areas will be by natural succession unless a special need is identified to prevent further resource damage. Using bulldozers in riparian and wetland areas, areas of significant cultural resources or historic trails, and in important wildlife birthing areas generally will be prohibited. Aerial fire retardant drops and fire retardants containing dyes or chemicals are prohibited within the Whoopup Canyon ACEC. Fire retardants containing dyes or chemicals are prohibited within 200 feet of flowing water, lakes and ponds.

Prescribed burning will be used as a resource management tool on BLM-administered public land surface. Activity plans and environmental analyses will be prepared for prescribed burning proposals to address site-specific applications and to develop burning prescriptions under which the fires could be contained. Prescribed burning will be conducted in accordance with, and to enhance, multiple use resource management objectives. A Wyoming Department of Environmental Quality (DEQ) permit will be secured before initiating a prescribed fire project. Smoke and pollution will be minimized. Use of fire for disposal of slash and residue from timber sales and thinning activities will be allowed when necessary to reduce the danger of wildfire and to reduce the volume of slash and debris or hazardous fuel levels in an area. Fire line construction will be avoided if natural fire breaks can be used. Surface-disturbing and disruptive activities associated with all types of fire management will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Newcastle RMP (2000), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, communal winter roosting, and foraging habitats. In addition, there are no mitigation measures included in this action that would minimize potential for effects to bald eagles.

Forest Management

Management Actions

The forest resources management objectives are to maintain and enhance the health, productivity, and biological diversity of forest and woodland ecosystems and to provide a balance of natural resource benefits and uses, including opportunities for commercial forest production. The public lands available for management of forest products (11,935 acres) will be managed by implementing sound silvicultural activities that include two- or three-cut shelterwood harvest, and commercial and pre-commercial thinnings. The maximum allowable harvest level is 4.7 million board feet (MMBF) per decade. Timber will be harvested on an evenflow basis. Road construction for harvesting timber or for conducting forest management practices will not be allowed on slopes greater than 25 percent, unless site-specific environmental analyses demonstrate that adverse effects can be mitigated or avoided. Skidder-type yarding will not be allowed on slopes greater than 45 percent. Other logging operations on slopes steeper than 45 percent will be limited to technically and environmentally acceptable methods such as cable yarding. Management of forest products on approximately 3,864 acres will be limited because of slope restrictions or inaccessibility for mechanical harvest methods. About 9,084 acres will be made available for forest products harvesting only when tailored specifically to benefit other identified resource values. About 417 acres of forest lands will not be available for management of forest products to protect unique riparian areas. Roads and landings developed for forest products removal will be rehabilitated unless it is determined that they would be useful for other management purposes. About 600 acres of timber stand improvement and pre-commercial thinning will be conducted per decade. To maintain biodiversity and the old growth component of the forest ecosystem, forested areas on public lands will be managed to maintain approximately 5 percent old growth. Minor forest products (firewood, posts, poles, Christmas trees) will be made available on a demand basis. Surface-disturbing and disruptive activities associated with all types of forest management practices will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Action

Forest management actions will occur in upland coniferous forests. In the Newcastle FO, bald eagles are typically associated with cottonwood forests of riparian habitats for nesting and open upland habitats for foraging. These bald eagle habitats are distinct from the coniferous habitats that are subject to forest management actions. Therefore, bald eagles are not expected to experience detrimental effects as the result of forest management actions.

Determination

Implementation of forest management actions, as presented in the Newcastle RMP (2000), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the extremely low likelihood that forest management activities may affect the bald eagle.

Hazardous Materials Management

Management Actions

The objectives of hazardous materials management are to protect public and environmental health and safety on BLM-administered public lands, comply with applicable federal and state laws, prevent waste contamination by any BLM-authorized actions, minimize federal exposure to the liabilities associated with waste management on public lands, and integrate hazardous materials and waste management policies and control into all BLM programs. For BLM-authorized

activities that involve hazardous materials or their use, precautionary measures will be used to guard against releases or spills into the environment. When discovered, BLM-administered public land sites contaminated with hazardous wastes will be reported, secured, and cleaned up according to applicable federal and state regulations and contingency plans. Parties responsible for contamination will be liable for cleanup and resource damage costs, as prescribed in federal and state regulations. The BLM will provide appropriate warnings and establish precautions for safety hazards associated with the use of any areas on BLM-administered public lands where safety hazards are identified. Surface-disturbing and disruptive activities associated with all types of hazardous materials and waste management will be subject to, but not limited to, appropriate mitigation measures determined through use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Emergency responses involving increased human presence and the use of machinery and heavy equipment may influence bald eagle behavior by causing eagles to avoid or abandon otherwise suitable habitats. Depending upon the location and severity of hazardous material releases, bald eagle nesting, communal wintering roosting, and foraging habitats may be affected. Hazardous material release and response actions may also affect potential bald eagle prey by causing injury or mortality, displacing prey from suitable habitats, or disturbing prey habitats. These potential effects to prey and their habitats would likely be limited in scale relative to the abundance of prey and foraging habitat available throughout the Newcastle FO.

Determination

Implementation of hazardous materials management actions, as presented in the Newcastle RMP (2000), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that releases of hazardous materials and subsequent response actions will harass or displace bald eagles and disturb or destroy suitable eagle habitats.

Lands and Realty Management

Management Actions

The objectives of lands and realty management are to support the multiple-use goals of the various BLM resource programs; respond to public requests for land use authorizations, sales, and exchanges; and acquire access to serve administrative and public needs. Utility/transportation systems will be located adjacent to existing utility/transportation systems whenever practical. Areas to be avoided for new facility placement and routes will be identified on a case-by-case basis, rather than attempting to establish utility corridors. Areas within 0.25 mile of developed or semi-developed recreation sites are avoidance areas for development activities such as roads, power lines, pipelines, and well pads. However, these areas will be open to development activities specifically for the purpose of recreation site facilities. Projects will be designed to meet the objectives of established visual resource management (VRM) classifications and will include appropriate mitigation. Facilities, including those related to existing or new wells, structures, power lines, and linear rights of way, may require screening, painting, or design that blends with the surrounding landscape. Other mitigation requirements will be determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

There will be no requirement to avoid reduction of public land acreage in the FO. Areas within 500 feet of 100-year floodplains, wetlands, or perennial streams on BLM-administered public lands are avoidance areas for surface-disturbing activities unless modified by the authorized officer. Landownership adjustment actions involving BLM-administered public lands (exchanges

or sales, recreation and public purpose [R&PP] leases and patents, withdrawals and transfers of administrative jurisdiction of public lands) will be considered on a case-by-case basis. The preferred method of landownership adjustment will be through land exchanges.

The BLM-administered public lands in the FO are open to operation of the public land laws, except for the 1,152 acres closed to mineral location, sale, or entry under the land laws (437 acres power site classification; 715 acres Forest Service withdrawal). The coal classifications that segregate 194,520 acres of federal coal from transfer to nonfederal ownership will be removed since they no longer serve the purpose for which they were intended. As determined on a case-by-case basis, easements will be pursued to provide access to public lands to support the objectives of other resource programs. The BLM-administered public lands in the FO are open to consideration of rights of way location. Proposals will be addressed on a case-by-case basis with emphasis on avoiding land use or resource conflicts and sensitive areas. Surface-disturbing and disruptive activities associated with all types of right of way construction and maintenance will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Implementation of activities associated with land resource management, as presented in the Newcastle RMP (2000), is **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Livestock Grazing Management

Management Actions

The livestock grazing management objectives are to maintain or improve forage production and range condition to provide sustainable resource base for livestock grazing on the public lands while improving wildlife habitat and watershed conditions. Livestock grazing on BLM-administered public lands will be authorized in a manner consistent with sound range management principles and to be consistent with other resource values. The authorized grazing use on the BLM-administered public lands will not exceed recognized active preference (48,818 animal unit months [AUMs]). Implementation of grazing management plans, monitoring studies, and the construction of range improvements, based on identified need, will continue unless

documented damage to other resource values is shown. Prescribed fire and mechanical or biological vegetative treatments will be given preference over chemical treatments to help meet vegetation management goals.

The BLM will coordinate efforts with other federal authorities and with state and local authorities to implement safe and effective prairie dog control measures on public lands when prairie dogs are determined to be a threat to human health and safety or are causing resource damage. Resource damage will be documented by BLM personnel when reported by the grazing lessee, adjacent landowners, or other interests. This could include resource damage occurring on private or state lands from prairie dog towns located on BLM-administered public lands. Animal damage control activities will be subject to established procedures and policies as outlined in the national and state level memoranda of understanding between BLM and the Animal and Plant Health Inspection Service (APHIS) and the animal damage control plan for the FO. Human health and safety determinations will be made by the State of Wyoming, Department of Health or by officers of the U.S. Center for Disease Control.

Unless one of the above situations were to occur, prairie dog control on BLM-administered public lands in the FO will not be allowed. Prairie dogs and their towns are an important component of the prairie ecosystem and are valuable in providing habitat and a food source for a number of wildlife species, some of which are species of special management concern. There will be no control of the size of prairie dog towns on BLM-administered public lands unless resource damage were to occur or human health and safety were to be threatened. New prairie dog towns will be allowed to become established on public lands.

Permitting livestock grazing use up to recognized active preference will continue until a change in resource conditions indicates that an adjustment is needed. The numbers of grazing allotments in the Improve (I), Maintain (M), or Custodial (C) categories are also subject to change as ecological range conditions change. Any adjustments in livestock grazing use will be made as a result of monitoring and consultation with grazing permittees. Monitoring studies will be conducted using the current BLM-approved methodology. Monitoring will be continued following adjustments in grazing use to assure that grazing and other management objectives are being met. Interdisciplinary rangeland monitoring studies will be established and conducted on BLM-administered public lands, including riparian areas, on a grazing allotment priority basis. The priority order, respectively, is “I”, “M”, and “C” category allotments. Studies on riparian areas in category "M" and "C" allotments will be established as workload allows or as needs are identified. These monitoring studies will be used to detect changes in range condition and trend, and to determine if vegetation management objectives are being met for all resource uses (livestock grazing, watershed, riparian, and wildlife).

Based on monitoring, the effectiveness of on-the-ground management toward meeting RMP and various resource activity and implementation plan objectives will be evaluated. Any rangeland studies will be carried out in accordance with approved standards and guidelines. Kind of livestock and seasons of livestock use may be modified to meet established multiple use objectives or to prevent resource damage. In conjunction with the wildlife habitat management and water resources management programs, specific riparian management guidelines will be developed and implemented in all grazing allotments, with priority given to category "I" grazing allotments. These guidelines could apply to such things as protective fencing, changes in livestock seasons of use, and project work to enhance and improve riparian zones. Developed and

semi-developed recreation sites are closed to livestock grazing. Surface-disturbing and disruptive activities associated with all types of range improvement project construction and maintenance will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may affect foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Newcastle RMP (2000), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Mineral and Geology Management

Management Actions

The mineral and geology resource management objectives are to maintain or enhance opportunities for mineral exploration and development while maintaining other resource values. Surface-disturbing and disruptive activities associated with all types of minerals exploration and development and with geophysical exploration will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

The management objective for leasable minerals is to maintain or enhance opportunities for mineral exploration and development while maintaining other resource values. Coal classifications on about 194,500 acres of federal coal lands will be terminated. These land classifications were intended for the protection of the federal coal and are no longer needed to serve that purpose. As coal lease applications are received, the coal screening process, including application of the coal unsuitability criteria and determination of mitigation needs, will be conducted on a case-by-case basis.

Federal oil and gas leases will be issued with appropriate stipulations for protection of other resource values. Leasing of other leasable federal minerals will be considered on a case-by-case basis and will be subject to the same or similar resource protection and mitigation requirements as those applied to oil and gas leases and rights of way.

The management objective for locatable minerals is to maintain or enhance opportunities for mineral exploration and development while maintaining other resource values. Other than lands withdrawn from mineral location, the FO will be open to mineral location, exploration, and development. A plan of operations will be required for any surface-disturbing activities, regardless of size, in designated ACECs and in areas closed to off-road vehicular travel.

The management objective for salable minerals is to maintain or enhance opportunities for mineral exploration and development while maintaining other resource values. Other than areas that are closed, the BLM-administered federal mineral estate in the FO will be open to mineral materials sales and development subject to appropriate conditional requirements. Whenever possible, preference will be given to the extraction of mineral materials from BLM-administered public land surface to avoid use of private lands where the mineral materials are federally-owned (split estate). Free use of mineral materials from split-estate lands (non-federal surface over federal mineral) will be discouraged whenever possible and will be allowed only when BLM-administered public land surface sites are not available. Mineral material sale areas, free use areas, community pits, and common use areas will be established as needed, in accordance with other resource uses and values. Reclamation plans will be required for all mineral material extraction sites. Reclamation of private land surface (split estate) will be developed in agreement with the private surface owner.

The management objective for geologic hazards is to maintain or enhance opportunities for mineral exploration and development while maintaining other resource values. All requests for a permitted activity on public land surface in a landslide or land slump area will be evaluated to determine if there is a threat to public health or safety. A “no surface occupancy” stipulation or construction specifications may be required in these areas.

The management objective for geophysical exploration is to provide opportunity for exploration of mineral resources and geologic data while protecting other resource values on BLM-administered public land surface. All parts of the FO that are open to oil and gas leasing, exploration, and development will be open to geophysical exploration subject to appropriate mitigation requirements. Mitigation may include, but is not limited to, seasonal use restrictions, restrictions during wet or muddy periods, explosive charge restrictions, and other restrictions where disturbance in an area is determined to be undesirable. Explosive charges will not be allowed if environmental analysis shows that unacceptable adverse impacts could occur. On lands where surface-disturbing activities will be prohibited or on public lands closed to off-road vehicular (ORV) travel, casual use geophysical exploration will be allowed.

The management objective for paleontological resources is to enhance their informational, educational, scientific, and recreational uses. Vertebrate fossils will only be collected from public lands under a Paleontological Resources Use Permit issued by the BLM. A Paleontological Resources Use Permit, issued by the BLM, is required for the collection of note-worthy plant and invertebrate fossils from public lands. Individuals may collect up to 25 pounds of petrified wood, plus one piece, per day from public land surface. Individuals may collect a total of 250 pounds of petrified wood per year without a permit. However, this material is for personal use only and may not be sold, bartered, or traded. Individuals may collect common invertebrate fossils and plant fossils (such as leaves) from BLM-administered public land surface for personal use. This material may not be used for commercial purposes. Assessment and mitigation of impacts to paleontological resources will be required on federal mineral leases in accordance with BLM policy. If suspected fossil materials are uncovered during construction, the operator will be required to stop work immediately and contact the BLM authorized officer. Activities will be brought to a halt until the authorized officer can assess the situation and advise whether any

mitigating measures need to be undertaken before the operations can continue. If fossils are found and operations are adversely affected, a suspension of operations will be granted. Mitigation measures for surface-disturbing activities associated with the collection of fossils from the BLM-administered public land surface will be determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Human activity associated with mineral and geology development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of mineral and geology management actions, as presented in the Newcastle RMP (2000), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Recreation Management

Management Actions

The recreation resource management objectives are to provide outdoor recreational opportunities on BLM-administered public land while providing for resource protection, visitor services, and the health and safety of visitors to public land. The BLM-administered public lands in the FO are available for recreation uses, subject to appropriate restrictions for the protection of other resource values. Response to public requests, including dispersed recreation opportunities (such as hunting, rock-hounding, and sightseeing), information, permitting of guide and outfitter activities on public land, limited field patrols of public land during hunting seasons, and boundary marking of areas where problems or conflicts occur, will be provided. Acquisition of lands with public recreation potential will be pursued. Access to BLM-administered public land surface in selected areas will be provided through purchase of access, exchange of use agreements, or exchange of lands, based on a willing buyer/willing seller philosophy.

A recreation project plan, livestock water development, and wildlife habitat management plan will be completed for the development of the proposed Meadow Draw Reservoir Recreation Site. Additional, developed recreation sites on public lands will be pursued as needs are identified. Primitive camping sites will be established on BLM-administered public land surface in Crook County to provide better control of camping use, fire, and trash collection. Establishment of additional primitive camping sites will be pursued as needs are identified.

Areas within 0.25 mile of developed or semi-developed recreation sites on public land are avoidance areas for other development and surface-disturbing activities (such as roads, power lines, pipelines, and well pads). This requirement can be modified by the authorized officer. However, these areas are open to development activities specifically for the purpose of recreation site facilities. Camping will be allowed in developed recreation sites or on undeveloped BLM-administered public land surface for a period of not more than 14 days within a 28 consecutive day period. After this time, the camp must be moved to a site at least 5 miles away. Cutting trees and firewood for recreational purposes is restricted to dead and down trees. The BLM will cooperate with other agencies and private landowners to explore opportunities to interpret a portion of the Cheyenne to Deadwood Trail. Selected tracts of BLM-administered public land surface within T43-46N, R60W, will be designated as the Stateline Special Recreation Management Area (SRMA) to emphasize recreation-related opportunities. BLM-administered lands in the remainder of the FO (except for the Whoopup Canyon ACEC) are designated an Extensive Recreation Management Area (ERMA). Surface-disturbing and disruptive activities associated with constructing and using roads, campgrounds, interpretive sites, and other recreational facilities and activities will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Actions associated with recreational management and use have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation resource management actions, as presented in the Newcastle RMP (2000), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to cause bald eagle harassment, displacement and to disturb or destroy suitable nesting and winter roosting habitats.

Off-Highway Vehicle Management

Management Actions

The objective of off-highway vehicle (OHV) management is to provide opportunities for OHV use in conformance with other resource management objectives. Unless otherwise specified, motorized vehicle use (including over-the-snow vehicles) on BLM-administered public land surface in the FO is limited to existing roads and trails. Seasonal restrictions may be applied in crucial wildlife habitats (for example, sage grouse strutting grounds/nesting areas, fish spawning beds, crucial big game winter ranges/parturition areas) as needed. On areas designated as limited to existing roads and trails, the performance of necessary tasks requiring off-road use of a motorized vehicle will be allowed, provided resource damage does not occur. An example of a necessary task is constructing or repairing authorized range improvements. Motorized vehicle travel is prohibited on wet soils and on slopes greater than 25 percent if damage to vegetation, soils, or water quality will result. The BLM-administered public lands within the Whoopup Canyon ACEC are closed to both motorized and non-motorized vehicle use, except for authorized administrative purposes.

Effects Analysis

Off-highway vehicle use is not expected to affect bald eagles or their nesting or communal winter roosting habitats due to the restriction of OHV use in these important bald eagle habitats and the lack of any active bald eagle nests identified on BLM-administered lands. Off-highway vehicle use is not likely to disturb foraging bald eagles because these eagles tend to be relatively less sensitive to human disturbances and can easily forage in areas unused by OHV. Potential effects of OHVs use on open, upland habitats will not likely affect bald eagles because open OHV use will be limited to areas that are not expected to provide concentrated or important foraging habitats for the eagle. In other areas designated as "closed" or "restricted," suitable foraging habitats will likely receive little to no impacts from OHV use.

Determination

Implementation of OHV management actions, as presented in the Newcastle RMP (2000), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that effects from ORV use will result in take.

Soil Resources Management

Management Actions

The objectives of soil resource management are to maintain soil cover and productivity and provide for improvement in areas where soil productivity may be below potential on BLM-administered public land surface. Protecting and enhancing soil resources on public land surface will be accomplished through site-specific mitigation of individual surface-disturbing actions. Mitigation measures, such as special construction and reclamation techniques, will be required on highly erosive or fragile soils. Land uses and surface-disturbing activities on BLM-administered public land surface will be designed to promote reduction of channel erosion, where it would result in severe losses of riparian habitat, and reduction of accelerated surface erosion problems or susceptibility. To the extent practical, damaged wetland and riparian areas will be restored.

Effects Analysis

Management of soil resources is not expected to detrimentally impact bald eagle behavior or suitable nesting, communal winter roosting, or foraging areas. Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may maintain or improve the condition of some habitats and therefore, may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Determination

Implementation of soil resource management actions, as presented in the Newcastle RMP (2000), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Vegetation Resources Management

Management Actions

The objectives of vegetation resources management are to maintain or improve the diversity of plant communities to support livestock grazing, wildlife habitat, timber production, watershed protection visual resources, reduce the spread of noxious weeds, and maintain or enhance essential and important habitats for special status plant species (for example, sensitive or threatened and endangered plants) on BLM-administered public land surface and prevent the need for any special status plant species being listed as threatened and endangered species.

The vegetation resources on BLM-administered public land surface will be protected and enhanced through site-specific mitigation of surface-disturbing activities. Surface-disturbing and disruptive activities associated with all types of vegetation management will be subject to appropriate mitigation measures, determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Noxious weeds and other undesirable vegetation on BLM-administered public lands will be controlled in cooperation with counties, Animal and Plant Health Inspection Service (APHIS), and other agencies and affected interests. Control of noxious weeds, in priority order, may include the use of species-specific insects, livestock grazing, mechanical methods, or chemical methods. If herbicides are proposed for use, those with minimum toxicity to wildlife and fish will be selected. As appropriate, buffer zones will be provided along streams, rivers, lakes and riparian areas, including riparian areas along ephemeral and intermittent streams. Vegetation treatments will avoid bird nesting seasons and other times of the year when loss of cover or disturbance by equipment will be detrimental to wildlife. Projects that may affect threatened or endangered plants or animals will be postponed or modified to protect the presence of these species. In such cases, the BLM will consult with the USFWS, as required by the Endangered Species Act.

Threatened, endangered, and sensitive plant species surveys and general floristic surveys will be conducted on BLM-administered public land surface to note locations and to obtain recommendations for management. Special status plant species surveys will be required before allowing surface-disturbing activities in potential habitat locations. Terms and conditional requirements will be developed to protect or enhance discovered populations. Sensitive species designation for species identified as being present or potentially present in the FO will be requested. The BLM will work with the USFWS to identify sensitive plant species that may be present in the FO. Surface-disturbing and disruptive activities associated with all types of vegetation management will be subject to appropriate mitigation measures, determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Actions associated with vegetation management including increased human presence and use of machinery or fire to implement management actions may detrimentally influence bald eagle behavior. The potential for these effects is low and the intensity is not expected to have lasting detrimental effects to bald eagle behavior. Terrestrial foraging habitats are most likely to experience vegetation management actions. These habitats are diverse and widespread throughout the FO and therefore, isolated disturbances resulting from vegetation management practices are not expected to limit the availability or quality of foraging habitats. Implementation of vegetation management actions, including noxious weed control and efforts to protect special status plant species, are likely to result in positive effects to bald eagle habitats, particularly foraging habitats, such as the creation or expansion of habitats suitable to potential terrestrial prey species.

Determination

Implementation of the vegetation management actions, as presented in the Newcastle RMP (2001), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects. Results of vegetation management may benefit the bald eagle by creating or supplementing habitats that support bald eagle prey species.

Visual Resources Management

Management Actions

The objective of visual resources management is to maintain or improve scenic values, visual quality, and establish visual resource management (VRM) priorities in conjunction with other resource values. Visual resources will be managed in accordance with objectives for VRM classes that have been assigned to the FO. The VRM requirements apply to activities conducted on public lands or to BLM-authorized mineral exploration and development activities on split-estate lands. Visual resources will be considered before authorizing land uses that may affect them. Mitigation to protect visual resources will be determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Actions associated with visual resource management will not directly impact bald eagle behavior or habitats. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be suitable for bald eagles or their prey.

Determination

Implementation of visual management actions, as presented in the Newcastle RMP (2000), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that implementation of these actions may preserve or minimize disturbance to habitats that may be suitable to bald eagles or their prey.

Watershed and Water Resources Management

Management Actions

The objectives of watershed and water resources management are to maintain or improve surface and groundwater quality consistent with existing and anticipated uses and applicable state and federal water quality standards; provide for the availability of water to facilitate authorized uses; and to minimize harmful consequences of erosion and surface runoff from BLM-administered public land surface. Water resources will be protected or enhanced through site-specific mitigation of use authorizations. When authorizing proposals for use of herbicides or pesticides on BLM-administered public lands, those chemicals with minimum toxicity to wildlife and fish will be selected. “No chemical use” buffer zones, to be delineated on a case-by-case basis, will be required along streams, rivers, lakes and riparian areas, including riparian areas along ephemeral and intermittent streams. Areas within 500 feet of 100-year floodplains, wetlands, or perennial streams, are avoidance areas for surface-disturbing activities. Areas within 100-year floodplains, wetlands, or riparian areas are closed to the placement or construction of structures (fuel or chemical storage tanks, well pads, buildings, or other types of structures), where there is potential for property, ecological, and general resource damage and human health and safety hazards from a flooding event.

Land use and surface-disturbing activities on BLM-administered public lands will be designed to promote reduction of channel erosion where it would result in severe reduction of riparian habitat, and to promote reduction of accelerated surface erosion in areas having severe erosion problems or fragile or erodible soils. To the extent practical, damaged wetland or riparian areas on public lands will be restored. Protecting watershed resources will be considered in the analysis of industry and BLM initiated projects. Watershed conservation practices and State of Wyoming Best Management Practices will be applied as necessary. Surface-disturbing and disruptive activities associated with watershed management will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Actions associated with watershed and water resources management will not negatively impact bald eagle behavior or their nesting, communal winter roosting, or foraging habitats. These management actions will likely benefit bald eagles by maintaining or improving habitat and foraging areas associated with aquatic systems.

Determination

Implementation of watershed and water resources management actions, as presented in the Newcastle RMP (2000), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions may improve habitats associated with aquatic systems that may be suitable to bald eagles or their prey.

Wildlife Habitat Management

Management Actions

The wildlife habitat management objectives are:

- Maintain biological diversity of plant and animal species.
- Support the Wyoming Game and Fish Department (WGFD) strategic plan population objective levels to the extent practical and to the extent consistent with BLM multiple-use management requirements.
- Maintain, and where possible improve, forage production and quality of rangelands, fisheries, and wildlife habitat.
- To the extent possible, provide habitat for threatened, endangered, and special status animal and plant species on BLM-administered public land surface in compliance with the Endangered Species Act (ESA) and approved recovery plans.

The BLM will coordinate efforts with other federal authorities and with state and local authorities to implement safe and effective prairie dog control measures on public lands when prairie dogs are determined to be a threat to human health and safety or are causing resource damage. Resource damage will be documented by BLM personnel when reported by the grazing lessee, adjacent landowners, or other interests. Damage could include resource damage occurring on private or state lands from prairie dog towns located on BLM-administered public lands. Animal damage control activities will be subject to established procedures and policies as outlined in the national and state level memoranda of understanding between BLM and APHIS and the animal damage control plan for the FO. Human health and safety determinations will be made by the State of Wyoming, Department of Health or by officers of the U.S. Center for Disease Control.

The size of prairie dog towns on BLM-administered public lands will not be controlled unless resource damage is occurring or human health and safety are threatened as stated above. Unless one of the above situations were occurring, prairie dog control on BLM-administered public land in the FO will not be allowed. Prairie dogs and their towns are an important component of the prairie ecosystem and are valuable in providing habitat and a food source for a number of wildlife species, some of which are species of special management concern. New prairie dog towns will be allowed to become established on public lands.

No BLM-authorized actions will be allowed that will disrupt animals on identified crucial winter range, generally from November 1 through March 30, unless approved by the authorized officer.

To protect raptors and sage and sharp-tailed grouse during their nesting seasons, disruptive activity generally will not be allowed from February 1 through July 31. This limitation does not apply to maintenance and operations of existing facilities. Modification of this limitation in any year may be approved in writing by the authorized officer.

Timber harvesting on BLM-administered public land surface in crucial winter range areas will not be allowed unless the timber harvest is designed to improve winter habitat for wildlife species.

Riparian habitat management guidelines will be developed and implemented in all grazing allotments, with priority given to category "I" allotments. These guidelines could apply to such things as protective fencing, livestock season of use designations, and project work to enhance and improve riparian zones to achieve a healthy and productive condition in wetland/riparian areas, and to apply the "no net loss of wetlands" policy.

Fence construction will be required to meet current BLM fence standards. Fences on BLM-administered public land surface that cause documented wildlife conflicts will be removed, reconstructed, or modified, as appropriate or necessary, to eliminate or reduce the conflict. Construction of fences that interfere with movements of big game species in crucial big game winter range will not be allowed on BLM-administered public land surface.

Animal damage control activities will be considered on a case-by-case basis. These activities will be subject to established procedures and policies as outlined in the national and state level memoranda of understanding between BLM and APHIS and the animal damage control plan for the FO. Situations where the proposed animal damage control activities (all or specific methods) are not compatible with BLM planning and management objectives or with prescriptions for other resource activities and uses the APHIS, will be requested to amend the proposed animal damage control activities accordingly.

The BLM will work in cooperation with the WGFD to provide adequate habitat for wildlife population objectives in the state's approved strategic plan for wildlife populations. Surface-disturbing and disruptive activities associated with wildlife habitat management will be subject to appropriate mitigation measures, determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts are dependent upon several factors including the number of people

involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife habitat management actions, as presented in the Newcastle RMP (2000), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Special Management Areas

Management Actions

The objectives for managing the Stateline SRMA are to ensure continued public use and enjoyment of recreation activities, while protecting and enhancing natural and cultural values; improving opportunities for high quality outdoor recreation; and, improving visitor services related to safety, information, interpretation, and facility development and maintenance. Recreational trails in the SRMA will be developed on BLM-administered public land surface for use by hikers, skiers, and mountain bike riders.

The objectives for managing the Whoopup Canyon ACEC are to protect and study rock art in the Whoopup Canyon area; expand public education and interpretation in the area; protect cultural resource values from degradation; and provide for wildlife and scenic values, and Native American concerns.

The public lands within the ACEC are closed to:

- Public access and unsupervised general public use;
- Surface-disturbing activities, including rights of way actions. The only exception to this will be those surface-disturbing activities necessary for meeting the research, education, interpretive and preservation management objectives for the area;
- Mineral material sales;
- Mineral location (a withdrawal from staking of mining claims and mining under the Mining Laws, will be pursued);
- Motorized or nonmotorized mechanical transport. Exceptions for physically handicapped;
- Persons will be explored on a case-by-case basis and may be allowed where possible, safe and practical. Vehicle use for administrative purposes will be allowed on a case-by-case basis;
- The use of explosives or blasting;
- Use of fire retardant chemicals or those retardants containing dyes to prevent adverse effects to the petroglyphs and to protect the integrity of sociocultural values;
- Geophysical exploration activity; and
- Commercial timber harvesting and harvesting of other forest products.

The public lands within the ACEC will be managed consistent with the Class II visual resource management (VRM) classification. The requirements identified above for no surface occupancy stipulations on federal oil and gas or other federal mineral leases, will be applied, as appropriate, to split-estate lands (private surface over federal minerals), intermingled among or adjacent to the

public lands in the ACEC, in relation to federal mineral exploration and development activities only. These include surface-disturbing activities, the use of explosives or blasting, geophysical exploration, mineral material sales, and mineral location.

Livestock grazing objectives will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Legal access across private lands for administrative and management purposes will be pursued. Visitation to and use of the area will be limited to (1) research under a cultural resources research permit; (2) traditional religious use by Native Americans; and, (3) supervised tours guided by BLM personnel. Active research and preservation activities will be conducted. To the extent possible, petroglyphs, artifacts, and cultural deposits will be preserved and protected from weathering and vandalism. A land exchange will be pursued to acquire private lands in the area determined to have significant cultural resource values. The public lands within the ACEC are open to consideration for mineral leasing with a no surface occupancy stipulation

Effects Analysis

Management actions associated with ACECs will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effect to bald eagles by limiting harassment and disturbance to potentially suitable nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the ACEC management actions, as presented in the Newcastle RMP (2000), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and maintain or protect suitable bald eagle habitats.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Newcastle RMP management actions.

TABLE 7: SUMMARY OF DETERMINATIONS FOR THE NEWCASTLE RMP

Resource	Determination
Air Quality	Not likely to adversely affect, due to insignificant effects
Cultural Resources	Likely to adversely affect
Fire	Likely to adversely affect
Forest	Not likely to adversely affect, due to discountable effects
Hazardous Materials	Not likely to adversely affect, due to discountable effects
Lands and Realty	Likely to adversely affect
Livestock Grazing	Likely to adversely affect
Mineral and Geology	Likely to adversely affect
Recreation	Likely to adversely affect
Off-Highway Vehicle	Not likely to adversely affect, due to discountable effects
Soil Resources	Likely to adversely affect
Vegetation	Likely to adversely affect
Visual Resources	Not likely to adversely affect, due to beneficial effects
Watershed and Water	Not likely to adversely affect, due to beneficial effects
Wildlife Habitat	Likely to adversely affect
Special Management Areas	Not likely to adversely affect, due to beneficial effects

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Newcastle FO. Potential effects that could affect bald eagles or their habitats in the Newcastle FO include the following:

- Non-federal oil and gas fields
- Bentonite mining in the northern third of Crook County
- Livestock grazing on private lands
- Timber harvesting on private lands

None of these possible projects are situated within important bald eagle habitats. However, certain components of proposed projects, if completed, could directly or indirectly affect bald eagles or bald eagle habitats. Implementation of the Newcastle RMP would not change any potential effects to the bald eagle that may result from current non-federal actions.

PINEDALE FIELD OFFICE

The *Record of Decision and Resource Management Plan (RMP) for the Pinedale Resource Area* was signed in December 1988 (BLM 1988b). This plan provides the management direction for approximately 931,000 acres of public surface land and 1,185,000 acres of federal mineral estate that are administered by the BLM in the Pinedale Field Office (FO). This plan addresses BLM-administered lands in Sublette, Lincoln, and Teton Counties.

The RMP includes descriptions of each management prescription applied within the Pinedale planning area. The following text briefly summarizes each prescription and any included bald eagle mitigation measures. Refer to the Pinedale RMP for a complete explanation of each prescription.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Pinedale planning area and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Ten nests are known to occur within the Pinedale planning area (**Figure 12**) (Andrews 2002; Redder 2002; Van Fleet 2002). Six nests are on privately owned surface lands, three are on lands administered by BLM, and one is on state lands. The nests within this planning area occur in riparian habitats associated with several creeks and rivers, including the Green River and New Fork River.

Recreation and livestock grazing are the dominant land uses in the vicinity of these nests. Effects from these land uses to bald eagles and their nesting habitats have been minimal, as evidenced by the continued use and success of these nests within the Pinedale planning area.

Communal Winter Roosting Habitat

Wintering eagles occur along the New Fork River and Green River. Most winter roosting is observed between the confluence of New Fork and Green River northward to Pinedale (Andrews 2002; Redder 2002; Van Fleet 2002). Much of the land immediately adjacent to these rivers is privately owned.

Livestock grazing on nearby lands (BLM-administered and privately owned) is the dominant land use near suitable wintering roost habitats. Effects from grazing have apparently been minimal as indicated by the regular use of these communal winter roosts in recent years.

Figure 12: Pinedale Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

Foraging Habitat

Most concentrated foraging habitats in the Pinedale planning area occur along the Green and New Fork Rivers extending from Daniel Junction, southward along the east and west sides of The Mesa to the confluence south of The Mesa. Most lands along these rivers are privately owned. Livestock grazing is the dominant land use on the BLM-administered and privately owned lands near the Green and New Fork Rivers. Effects from this land use have not had any important effects to foraging bald eagles, as evidenced by the regular and continued use of these foraging areas from year to year.

Existing Conservation Measures

The following section presents measures included in the Pinedale RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) "Seasonal restrictions will be applied to active raptor nests" (BLM 1988b, p.9).

(b) "Threatened and endangered (T&E) species and their habitats will be protected. Actions which would degrade habitat to a point of jeopardizing the continued existence of a T&E species will not be allowed. The U.S. Fish and Wildlife Service (USFWS) will be consulted on any action with reasonable potential to affect endangered species or their habitats. A biological assessment will be prepared on all proposals where T&E species habitat will or may be affected and a biological opinion will be requested from the USFWS. All actions will include consideration for T&E plant and animal species. The Pinedale Resource Area will continue to be inventoried to identify potential habitat and occurrence of T&E species. Identification of habitat occupied by T&E species and habitat with potential to help support these species would be managed in accordance with the national recovery plans. Potential habitat includes high-density prairie dog towns for black-footed ferrets, wetlands for whooping cranes, high cliffs over riparian zones for peregrine falcons, and cottonwood stands along the Green, New Fork, and East Fork rivers for bald eagles)" (BLM 1988b, p.21).

(c) "Habitat occupied by federally listed T&E plant and animal species will be monitored to ensure compliance with the Endangered Species Act)" (BLM 1988b, p.21).

(d) "To protect important raptor nesting habitat, activities or surface use will not be allowed from February 1 through July 31 within certain areas encompassed by the authorization. The same criteria apply to defined raptor winter concentration areas from November 15 through April 30" (BLM 1990a, Appendix A-1, p. 59).

(e) "Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (name) which is a threatened or endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that (name) occurrence is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications)" (BLM 1990a, Appendix A-1, p.59).

Analysis of Proposed Management Actions and Effects

The RMP includes descriptions of each management prescription applied within the planning area. The following text briefly summarizes the activities and any specific mitigation measures associated with each management prescription. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* will be applied to all surface disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and restrictions on surface occupancy that will minimize potential effects to bald eagles and their habitats. Refer to the Pinedale RMP for a complete explanation of each prescription.

Surface Disturbance Restriction Decisions

Management Actions

The surface disturbance restrictions are necessary to protect certain sensitive resources and areas from adverse affects of surface-disturbing activities and human presence, and are inclusive of the various management actions developed in and analyzed for the approved RMP. These restrictions apply to all types of activities involving surface disturbance or human presence impacts and are applied in accordance with the guidelines described in the Wyoming BLM Standard Mitigation Guidelines for Surface-Disturbing Activities. The guidelines include, where applicable, proposals for waiver, exception, or modification, based on analysis for individual actions. This would allow for situations where a surface-disturbing activity may actually benefit sensitive resources, and allow for those occasions when analysis determines that an activity will not affect those resources.

The mitigations identified in the RMP serve to provide a degree of protection to affected resources, not to unnecessarily restrict activities. The RMP provides the flexibility for modifications or exceptions to restrictions in specific circumstances where a restriction is determined not to apply or is not needed to achieve a desired objective.

Surface disturbance is characterized by the removal of vegetative cover and soil materials. Where actual excavation does not occur, activities may be allowed to occur with less stringent limitations provided that the objectives and purpose for the surface disturbance restrictions are met. Timber harvesting within 500 feet of streams or riparian areas and on slopes greater than 25 percent are examples where less stringent application of the standard mitigation guidelines would apply. This would be applicable to those timber harvest activities, such as tree cutting, skidding, and slash disposal, that do not fully remove vegetative cover and soil materials. In the past, allowing these activities with a 100-foot streamside buffer distance and on slopes greater than 25 percent have proven effective. However, road construction or staging/loading areas for logging equipment would not meet the less stringent definition and would be subject to the standard requirements of 500 feet and 25 percent slope.

The mitigations prescribed for federal mineral development on split estate lands (federal mineral/nonfederal surface) apply only to the development of the federal minerals. These mitigations do not dictate the surface owners' management of their lands. The mitigations present restrictions only on those surface activities conducted for purposes of developing the federal minerals and that are permitted, licensed, or otherwise approved by the BLM.

When the BLM is considering issuing a mineral lease, the agency has a statutory responsibility under the National Environmental Policy Act (NEPA) to assess the potential environmental impacts of the federal undertaking. It also has the statutory authority under the Mineral Leasing

Act of 1920, the Mineral Leasing Act for Acquired Lands, and the Federal Land Policy and Management Act of 1976 to take reasonable measures to avoid or minimize adverse environmental impacts that may result from federally authorized mineral lease activities. This authority exists regardless of whether or not the surface is federally owned.

The Mineral Leasing Act of 1920, the Mineral Leasing Act for Acquired Lands, and the Federal Land Policy and Management Act of 1976 are not the only statutes that establish such authority. Other statutes that may be applicable include the Clean Water Act, the Clean Air Act, the National Historic Preservation Act, the Endangered Species Act of 1973, the Federal Coal Leasing Amendments Act of 1976, and the Surface Mining Control and Reclamation Act of 1977. Moreover, the recently enacted Federal Onshore Oil and Gas Leasing Reform Act of 1987 specifically requires the BLM to regulate surface disturbance and reclamation on all leases.

Necessary protection from surface-disturbing activities will be provided for wintering wildlife on about 461,090 acres of crucial and noncrucial winter range. Seasonal restrictions will be incorporated into all land use authorizations where appropriate. This includes approximately 13,440 acres of noncrucial elk winter range in the Bench Corral area; approximately 3,400 acres of noncrucial elk winter range in the Miller Mountain area; and approximately 12,800 acres of noncrucial deer winter range in the Mesa area.

No surface occupancy will be allowed on elk feedgrounds. Exceptions may be allowed if analysis indicates that proposed activities will either benefit or cause no adverse impacts to the elk. Further public input will be required for exceptions that are not designed to specifically benefit elk. No activity or surface disturbance will be allowed in elk calving areas during periods of use, usually between May 1 and June 30.

Sage grouse nesting areas will be protected in accordance with the Wyoming BLM mitigation guidelines. Surface occupancy or use, including but not limited to the drilling of wells, the construction of well pads, roads, pipelines, or other types of rights of way, and/or the installation of permanent or high profile structures (buildings, storage tanks, overhead powerlines, etc.) within 1/4 mile of a sage grouse lek (strutting ground) will be restricted or prohibited unless the operator and Authorized Officer arrive at an acceptable plan to mitigate anticipated impacts. Activity will generally be restricted to existing roads and trails. Other activities may be allowed if environmental analysis indicates that nesting sage grouse concentrations will not be adversely affected. Activity between the hours of 12 midnight and 9:00 a.m. will not be allowed within approximately one half mile of leks (e.g., during strutting season).

Seasonal restrictions will be applied to active raptor nests. Priority for further inventory of raptor nest locations will be given to areas where activities and surface disturbance are proposed.

No surface disturbance will be allowed within 500 feet of riparian habitat, wetland, and (or) live water unless a high potential for successful rehabilitation exists and(or) impacts will be temporary in nature.

No surface disturbance will be allowed on the Upper Green River special recreation management area, except as identified in a management plan for that area.

No surface disturbance will be allowed within one-quarter mile or the visual horizon (whichever is closer) of contributing segments of historic trails.

Waste disposal facilities (e.g., drilling fluid pits, solid waste, and sanitary facilities) will not be authorized on floodplains, wetlands, and related riparian zones.

Surface disturbance will be minimized in crucial watersheds, such as Soap Holes Basin and Tip Top, with emphasis on reducing soil erosion and sediment and salinity contributions to the Green River Basin water system. Surface-disturbing activities will be appropriately restricted in accordance with the Standard Mitigation Guidelines and standard practices applied to surface-disturbing activities.

No surface occupancy will be allowed on cultural sites 48SU301, 48SU350, and 48LN300, and on developed and semi-developed recreation sites. No exceptions will be allowed without further public input. The NSO established for cultural resource site 48SU301 was established on a 160 aliquot part subdivision so that it could be readily and legally described in land description terms. The intent of the NSO is to prohibit surface occupancy on the physical cultural resource properties of the site. It is also intended to prohibit surface occupancy within the immediate viewshed of the various site properties (i.e., that portion of the viewshed that occurs within the NSO boundary). It was not intended to prohibit surface occupancy in those portions of the NSO that occur outside the viewshed and that contain no cultural properties.

Surface disturbances will not be allowed within one-quarter mile of developed and semi-developed recreation sites unless activities were determined to be compatible with recreation objectives for the area.

No surface occupancy will be allowed in the Rock Creek drainage within the Rock Creek Area of Critical Environmental Concern (ACEC) (approximately 4,200 acres). The only exceptions are activities proposed to benefit the Colorado River cutthroat trout habitat. No exceptions will be allowed without further public input.

Effects Analysis

Implementation of surface disturbance restrictions throughout the Pinedale planning area will not detrimentally impact bald eagle behavior or habitats. Measures intended to restrict surface disturbances and minimize the effects from activities that disturb the surface may result in secondary effects that are beneficial to the bald eagle and its prey.

Determination

Implementation of surface disturbance restriction management actions, as presented in the Pinedale RMP (1988b), is **not likely to adversely affect** the bald eagle, due to **beneficial effects**. Efforts intended to limit activities that disturb the surface and their potential impacts may benefit bald eagles and their prey.

Air Quality Management

Management Action

The objective of the air quality management prescription is to maintain air quality within or above standards through cooperative management of emissions with industry, the State of Wyoming, and other federal agencies. Objectives include the protection of public health and safety and the well being of sensitive natural resources. The BLM will strive to minimize, within the scope of its authority, any emissions that may add to acid rain, violate air quality standards, or degrade visibility. BLM actions associated with air quality management will include:

- Coordination with Forest Service, Environmental Protection Agency, and State of Wyoming in monitoring for atmospheric deposition and its impacts on the Class I airsheds of the Bridger and Fitzpatrick wilderness areas;
- Cooperation in the operation of the National Atmospheric Deposition Program/ National Trends Network acid rain monitoring site; and
- Cooperation in the collection of basic climate and meteorological data from remote automatic weather stations.

Special requirements to alleviate air quality impacts will be included on a case-by-case basis in use authorizations. Examples of such requirements would include: limiting emissions, spacing of source densities, requiring the collection of meteorological data, covering conveyors at mine sites (to lower dust emissions), and placing restrictions on flaring of natural gas (to reduce sulfur dioxide emissions). No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the Pinedale RMP.

Effects Analysis

Actions related to air quality management will not result in negative impacts to bald eagle behavior or habitats. Implementation of these management actions will likely result in maintaining or improving environmental conditions throughout the planning area, which may have secondary benefits to the bald eagle and its prey.

Determination

Implementation of air quality management actions, as presented in the Pinedale RMP (1988b), is **not likely to adversely affect** the bald eagle, due to **insignificant effects**. Air quality management efforts may result in positive effects to air quality and visibility that would be beneficial to bald eagles and their prey.

Minerals Management

Management Action

The objective of the minerals management prescription is to make public lands and federal mineral estate available for orderly and efficient development of mineral resources. All minerals actions will comply with goals, objectives, and resource restrictions required to protect the other resource values in the planning area.

Generally, the planning area will be open to consideration for exploration, leasing, and development for all leasable minerals, which include oil, gas, coal, oil shale, and geothermal steam, in accord with all applicable provisions (e.g., restrictions, prohibitions). All activities will be conducted in accordance with the guidance for mitigation of surface-disturbing activities.

The 7,636-acre Scab Creek area will be closed to oil and gas leasing. The remainder of the planning area (approximately 1,185,000 acres) will be open to consideration for leasing, exploration, and development of oil and gas. Once an oil and gas lease has been issued, it constitutes a valid existing right and BLM cannot unilaterally change the terms and conditions of a lease. Therefore, in areas where oil and gas exploration and development activities are restricted or in areas closed to oil and gas leasing, an existing lease in the area would not be affected by the closure and restrictions cannot be added to the lease. Closures and additional lease restrictions could not be fully implemented until after a lease expires and new leases are issued for the same area. However, additional restrictions can be applied at the Application for Permit to Drill (APD) stage, and at subsequent development stages, that would mitigate potential impacts from oil and gas operations within existing lease areas so long as rights to develop the leases remain intact.

The BLM will evaluate industry-proposed measures to protect health and safety through the drilling permit process. Of particular concern will be the requirements of approved contingency plans for hydrogen sulfide (H_2S) release. Requirements of operators could include conducting dispersion analyses to determine ambient H_2S concentrations during well blowouts, collecting onsite meteorological data, preparing detailed evacuation plans, and placing offsite warning signs.

The Riley Ridge Project Monitoring Program will be continued. Further monitoring will include gathering of geological data in the Deadline Ridge-Graphite Hollow crucial elk winter range to aid in preparation of the proposed activity plan. Monitoring will be coordinated with other resource monitoring programs such as wildlife, surface and ground water quality, grazing, and cultural resources, as appropriate.

Geophysical notices of intent will be evaluated on a case-by-case basis. All acreage in the planning area will be subject to various appropriate limitations (e.g., vehicle use restrictions), including about 517,170 acres subject to seasonal limitations. In addition, the use of explosive charges may not be allowed in any area if analysis determines that unacceptable adverse impacts would occur. Generally, all authorizations will be issued with appropriate application of surface disturbance mitigation requirements.

Specific limitations include:

- Approximately 7,636 acres in the Scab Creek area will be closed to geophysical activities.
- Areas closed to ORV use will also be closed to vehicle use for geophysical activities.
- In the Beaver Creek Area of Critical Environmental Concern (ACEC), geophysical vehicles will be restricted to existing roads and trails.
- Geophysical vehicle travel through developed and semi-developed recreation sites will be restricted to established roads and trails.
- Geophysical activities in the remaining no surface occupancy (NSO) areas (mostly cultural sites and elk feedgrounds) will be evaluated on a case-by-case basis and may be restricted if unacceptable impacts would occur to other resources (e.g., water quality, cultural, wildlife, recreation, and visual resource values).

The Rock Creek ACEC and surrounding area (about 17,000 acres) will be available for consideration for oil and gas leasing with appropriate stipulations, following the completion of an activity plan and associated environmental analysis. That portion of the Rock Creek ACEC within the Rock Creek watershed boundary will be leased with an NSO stipulation for protection of the pure strain of Colorado River cutthroat trout in Rock Creek.

Leasing guidelines and objectives in the remaining parts of the Rock Creek ACEC and portions of the adjacent Deadline Ridge-Graphite Hollow crucial elk winter range will be established in a site-specific minerals/wildlife management plan (activity plan) and environmental analysis. This plan will include an evaluation of the ongoing elk habitat use study and compilation of geologic data.

The plan will also include the following direction:

- Oil and gas leasing direction, regarding related activities in the evaluation area east of the Rock Creek ACEC, will be designed to ensure continued elk winter use in the Deadline Ridge-Graphite Hollow area. Oil and gas development will be allowed if determined to be compatible with continued elk use of the crucial winter range. No substantial adverse impacts to this elk habitat will be allowed.

- Oil and gas leasing direction, regarding related activities in the evaluation area west of the Rock Creek ACEC, will be guided by the RMP multiple use guidelines and objectives. Evaluation may allow for some development on this portion of the crucial elk winter range, as long as RMP planning objectives are met.

- The Deadline Ridge-Graphite Hollow wildlife/leasing study and activity plan will identify any suitable areas for surface occupancy based on the previously mentioned mineral leasing guidelines and objectives. Any requests for relief from leasing restrictions that are in conflict with these guidelines and objectives will be analyzed on an individual basis. Based on the analysis, either the conflicting actions would be denied or a plan amendment would be initiated to modify the plan objectives.

- Upon completion of the Deadline Ridge-Graphite Hollow activity plan, large contiguous areas may be offered for lease with the NSO stipulation. These areas may only be accessed through directional drilling. The NSO stipulation would be used, rather than a no lease provision, under the assumption that industry is the best judge of whether technology would enable access to the oil and gas resources in compliance with the terms of the lease.

- Leasing with the NSO stipulation could become necessary if the area is characterized by steep, and in many cases unstable slopes, with stream/riparian zones "filling" the valley bottoms. Any disturbance on the steep slopes or in the riparian zone threatens the crucial elk and cutthroat trout habitats directly.

With the exception of withdrawn lands, the planning area will be open to mineral location. Areas identified in the future as needing total protection from locatable mineral activities will be closed to mineral location and considered for withdrawal. For example, if analysis of the Rock Creek drainage portion of the Rock Creek ACEC indicates that this level of protection is necessary, a withdrawal from mineral location will be initiated on the area (approximately 4,200 acres).

Applications for mineral sales (e.g., sand, gravel) will be analyzed and processed on a case-by-case basis and appropriate surface disturbance mitigation requirements will be included in permits. The established common use area in sections 15, 22, 27, and 34, T27N, R115W, will remain available for development. However, those portions of the common use area in sections 15 and 22 will be managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review until Congress acts upon the wilderness recommendations.

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of mineral management actions, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Natural History and Paleontological Resources Management

Management Action

The management objective for this resource will be to protect and preserve representative samples of these values that are present in the planning area. Paleontological sites will be protected through the use of surface and subsurface protection stipulations and discretionary management authority. Any actions to close or restrict areas for fossil protection will be evaluated on a case-by-case basis. All collection of vertebrate fossils requires a paleontological collection permit. Collection of invertebrates and plant fossils "of significant interest" requires a collection permit. Permits are required for mapping and reconnaissance work as well as for collection and (or) evaluation work. As areas of unique natural history or particular natural interest are identified, they will be nominated for designation as National Natural Landmarks, Research Natural Areas, or areas of critical environmental concern and managed for protection of the unique values. Interpretation of the natural features and public use will be emphasized. The Pinedale-Boulder Glacial area has been proposed for designation as a National Natural Landmark. The area will be studied in conjunction with the Forest Service to determine applicability of the designation. Should the designation occur, the site will be managed to protect the unique geological and ecological features and provide for public interpretation of these features. No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with natural history and paleontological resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with natural history and paleontological resource

investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of natural history and paleontological resource management actions, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Soils and Watershed Management

Management Action

Soils and watershed management objectives will be to maintain or enhance the quality of surface and ground water. Watersheds will be managed to maintain or improve channel stability and overall watershed conditions. Soil conservation will be provided through managing for maintenance of soil productivity and stability, and to allow water infiltration to provide for optimal plant growth. Management actions will emphasize the reduction of soil erosion and sediment and salinity contributions to the Green River Basin water system. Of particular importance will be those areas with highly saline soils such as the Soap Holes Basin and crucial watersheds where surface disturbance will be minimized. These crucial watersheds are generally found within the boundaries of the ground water recharge zones. Corrective measures to be applied wherever unsatisfactory watershed conditions are identified will be developed and implemented through activity plans (e.g., watershed, habitat, allotment, or timber management plans). Such measures will also be implemented through stipulations attached to permits, leases, and other authorizations. The Wyoming BLM Standard Mitigation Guidelines for Surface-Disturbing Activities and the standard practices applied to surface-disturbing activities are used to control nonpoint sources of water pollution. These are examples of best management practices (BMPs) relative to the Clean Water Act of 1972, as amended. As other BMPs for nonpoint sources of water pollution are developed, they will be incorporated into the guidance for this plan where they conform with the RMP objectives.

Projects proposed on BLM-administered lands will be evaluated on a case-by-case basis for affects on soil and water resources. Soil management practices will be applied on a site-specific basis using soil survey data, and will be related to the soil characteristics such as the steepness of slopes, the length of slope, and soil chemistry and composition. Watershed management practices will follow similar guidelines.

Examples of management practices to be applied throughout the planning area include seasonal closures due to saturated soil conditions and the standard practices applied to surface-disturbing activities. At certain times of the year, use will be precluded until soil moisture is such that the use or activity will not result in degradation of the soil resource and watershed condition. These closures occur predominately in the spring and autumn.

A monitoring program for specific surface waters will be continued to identify trends on water quality. Public drinking water at recreation sites will also be protected and monitored to be in compliance with EPA safe-drinking water standards.

A Level II ground water study of the Riley Ridge/LaBarge area will be completed to define the ground water resource and to determine what additional ground water monitoring and protective measures are necessary in regard to subsurface activities conducted in the area (e.g., oil and gas drilling activities).

Ground water protection will continue to be provided by applying appropriate procedures. Special precautions will be taken to ensure protection of ground water quality when surface disturbance is to occur on ground water recharge zones.

An activity plan for reducing erosion and channel degradation will be prepared for the Tip Top watershed. Specific actions could include road maintenance, recontouring, and reseeding of disturbed sites to help achieve soil stabilization.

A watershed/recreation plan will be prepared on the Stuart Point-Mount Airy area for reducing sedimentation while still allowing off-road vehicle (ORV) use. A more detailed description of this area can be found in the ORV section.

All actions will comply with Executive Orders 11988 Floodplain Management and 11990 Protection of Wetlands, and the State of Wyoming Department of Environmental Quality water quality standards.

Effects Analysis

Management of soil and watershed resources is not expected to detrimentally impact bald eagle behavior or suitable nesting, communal winter roosting, or foraging areas. Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may maintain or improve the condition of some habitats and therefore, may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Determination

Implementation of soil and watershed resources management actions, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Wildlife Habitat Management

Management Actions

Wildlife habitat management will be oriented toward the maintenance of fish and wildlife habitats to support populations at appropriate Wyoming Game and Fish Department planning objectives. Planning will emphasize habitat enhancement and protection.

In the Deadline Ridge-Graphite area, management emphasis will be placed on maintaining crucial elk winter habitat. In elk feedgrounds, management emphasis will be on maintenance of habitat quality and continued use of the areas as elk feedgrounds. To maintain the integrity of the elk feedgrounds, certain activities would be constrained on lands near them. The NSO restriction would be imposed for all activities except those that have impacts which are temporary in nature or that are compatible with elk habitat management.

Threatened and endangered (T&E) species and their habitats will be protected. Actions that would degrade habitat to a point of jeopardizing the continued existence of a T&E species will not be allowed.

The U.S. Fish and Wildlife Service (USFWS) will be consulted on any action with reasonable potential to affect endangered species or their habitats. A biological assessment (BA) will be prepared on all proposals where T&E species habitat will or may be affected and a biological opinion will be requested from the USFWS.

All actions will include consideration for T&E plant and animal species. The Pinedale planning area will continue to be inventoried to identify potential habitat and occurrence of T&E species. Identification of habitat occupied by T&E species and habitat with potential to help support these species would be managed in accordance with the national recovery plans. Potential habitat includes high density prairie dog towns for black-footed ferrets, wetlands for whooping cranes, high cliffs over riparian zones for peregrine falcons, and cottonwood stands along the Green, New Fork, and East Fork rivers for bald eagles. Management prescriptions for potential habitat will include consideration for future occupancy by T&E species. Key habitat characteristics will be identified to help ensure maintenance of high quality areas for natural reoccupation. Proposals for introductions of plant and(or) animal T&E species on BLM-administered lands will be evaluated and analyzed, considering the impact of other activities.

Habitat occupied by federally listed T&E plant and animal species will be monitored to ensure compliance with the Endangered Species Act. The Colorado River cutthroat trout (a Category 2 species) will be monitored in cooperation with the Wyoming Game and Fish Department.

Areas with habitat having potential to support transplanted or introduced wildlife species (other than T&E species) will be identified in the development of activity plans and managed in accordance with the RMP objectives. Proposals for introductions or species transplants to BLM-administered public lands will be evaluated and analyzed, and the impact to and of other resources will be considered. Cooperative agreements will be developed, if necessary, to facilitate species transplants and habitat management.

Mule deer, elk, antelope, and sage grouse use patterns will be monitored. Habitat trend for the species will be interpreted through survey data collected, in cooperation with livestock and watershed studies and monitoring activities. Interdisciplinary selection of key areas and plant species will ensure that crucial habitats are monitored.

The East Front Aquatic Habitat Management Plan (HMP) will be implemented to promote riparian habitat management and protect the Colorado River cutthroat trout. In addition, this HMP and the Upper Green River HMP will include consideration of habitat improvement and related projects for enhancing habitat for waterfowl and aquatic species.

Riparian area maintenance, improvement, and restoration will help promote quality fish habitat on streams and lakes. Coordination with WGFD will continue on the Comprehensive Management and Enhancement Plan for the Colorado River cutthroat trout in Wyoming to improve habitat and expand the range of these trout so they are no longer in threat of extinction. Efforts to control siltation into the East Fork and New Fork rivers will be pursued to improve the water quality of these fisheries. Water Quality Standards for other fishing streams and lakes will be coordinated with WGFD and the State Department of Environmental Quality. Adherence to these standards will help maintain existing fish habitat.

High priority will be given to improvement of wildlife habitat through vegetation manipulation. Any areas identified in the future as suitable for treatment to benefit wildlife will be considered.

Vegetation treatments for livestock grazing and other resource objectives will include consideration of wildlife objectives and related restrictions. Habitat will also be enhanced by other improvements, such as development of water facilities. During development and implementation of activity plans (e.g., allotment, timber, watershed, or wildlife habitat management plans), consideration of habitat improvement needs and locations will be included. Waterfowl habitat will be considered for enhancement through improvements, specifically the Upper Green River HMP and East Front Aquatic HMP update, will provide waterfowl and fisheries habitat improvement projects. Road closures may be imposed to protect fisheries and elk habitat. The Wyoming Game and Fish Department is conducting a study of big game response to oil and gas development on the Riley Ridge natural gas project area. Findings and recommendations from this study will be used in considering future development of minerals on big game ranges. No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts depend on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife habitat management actions, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Livestock Grazing Management

Management Actions

The objective of livestock grazing management will be to maintain or improve ecological range condition, and to maintain or increase forage for livestock grazing, while providing for the maintenance or improvement of wildlife habitat, watershed values, and riparian areas.

Forage will be made available for livestock grazing use. Management will also provide for protection or enhancement of other resource values. The current seasons of use, kinds of livestock, and amount of grazing use will continue until monitoring indicates a modification can be accommodated, or is necessary. The current grazing preference objective of 107,907 animal unit months (AUMs) will be maintained or increased through implementation of allotment management plans (AMPs), range improvements, and vegetation manipulation. If these measures fail to provide the grazing preference objective, while providing for protection of other resource values as established in the plan, livestock reductions may become necessary. Any adjustments in livestock grazing use will be made as a result of monitoring and in consultation with grazing permittees and other affected interests. All developed and semi-developed recreation sites will be closed to livestock grazing.

The 20,991 acres of unallotted forage on public lands will be considered for allocation on a case-by-case basis in accordance with RMP goals and objectives. The number of AUMs to be allocated will be determined after the lands have been evaluated. Adequate stock trails will be maintained to support livestock trailing needs. Adequate forage for wintering elk will be provided to the extent possible (population levels based on Wyoming Game and Fish Department 1987 population objectives) in the Bench Corral, Miller Mountain-Fort Hill, Riley Ridge, and Graphite elk winter ranges. In cases where adequate forage for wintering elk is not available, adequate forage could be provided through a combination of management practices, including livestock grazing systems, grazing adjustments, and vegetation manipulation. Livestock water developments on crucial elk winter ranges will only be allowed if they do not result in adverse impacts to the crucial range.

All allotments have been placed into a category based on the established criteria. As conditions change, and following consultation with the affected parties, an allotment may change from one category to another. Initial categorization is 41 "I" allotments, 141 "M" allotments, and 26 "C" allotments. New allotment management plans (AMPs) will be written and implemented on "I" allotments. Existing AMPs on "I" allotments will be modified to meet livestock objectives and incorporate wildlife and watershed objectives to be attained through livestock management. Existing AMPs on "M" category allotments will not be modified, unless monitoring and evaluation indicate a change in management is needed. New AMPs or activity plans will require environmental analyses. All grazing systems will be designed to maintain or improve plant diversity. Specific objectives will be determined during AMP preparation to provide forage diversity for antelope, mule deer, and sage grouse as well as livestock. Grazing systems will be designed to limit forage competition for forbs and other desirable plants, particularly in the spring of the year.

New range improvements will be implemented on "I" category allotments as first priority. The range improvements on "M" and "C" category allotments will be funded as priorities allow, or they could be implemented with other funds from permittees, other agencies, or grazing boards. First priority within "M" and "C" allotments will be given to projects that have contributed funds. New range improvements (e.g., vegetation manipulation, water developments, and fencing) will be designed to the extent possible to meet multiple use objectives for all resources. The maintenance responsibility of range improvements will be assigned to the benefiting users. The maintenance and reconstruction of range improvements will be accomplished as needed. The acreage displayed for each allotment is considered a target figure for potential range improvements. Development of AMPs and other activity plans will further refine the acreage according to livestock grazing, wildlife, and other resource objectives. Some allotments have very small acreages available for treatment. Because of the high cost of treating such small areas, they are not likely to be treated. Other allotments containing large acreages may not receive the total projected treatment due to resource considerations (e.g., sage grouse nesting areas and erodible soils). Acreage of brush control may increase or decrease on certain allotments depending on rangeland management needs addressed in AMPs and other activity plans.

All brush control projects will involve site-specific environmental analysis; coordination with affected livestock operators and the WGFD; and will include multiple use objectives for other resource uses including livestock, wildlife, and watershed.

Vegetation manipulations in "I" allotments will be financed by BLM monies and other monies, if available. BLM range improvement monies will generally not be used to finance vegetation manipulations in M allotments until all the range improvements are accomplished in "I" category allotments. The vegetation manipulations in "M" category allotments could be financed by other sources such as permittees, other agencies, or grazing boards.

Prescribed fire will generally be the preferred method of vegetation manipulation for the conversion of brushland to grassland. Wildfires occurring in areas with a fire prescription will be allowed to burn as long as they remain within the prescriptions and meet land use objectives. Other vegetation manipulation methods will be considered on a case-by-case basis.

All new project development will be required to meet the criteria. Range improvements will be done in accordance with RMP and activity plan objectives and priorities. Total project needs will be considered for each allotment before public funds are spent. A cost/benefit analysis will be completed on an allotment basis before range improvements are constructed with government funding.

To reduce streambank degradation, salt blocks for livestock and wildlife use will not be placed within 500 feet of live water, wetland, or riparian areas, unless activity plans show that it is necessary to meet management objectives.

Any forage increases realized from management prescriptions and range improvement practices will be allocated to wildlife, watershed, and livestock. Site-specific objectives for wildlife, watershed, and livestock grazing will be developed to identify each resource use to receive a forage allocation.

Actual forage allocation from forage increases will be based on site-specific analysis and must conform to the multiple use objectives of the activity plans. The allocation of forage resulting from treatments financed by permittees, as in "M" category allotments that do not have crucial wildlife ranges, will be evaluated on a case-by-case basis. More forage may be allocated to livestock grazing than to other resource uses, in accordance with the current federal grazing regulations, including consistency with the multiple use management objectives set forth in this document. Consultation with the affected parties will be necessary at the outset of planning for the project allocating increased forage to ensure satisfactory proportioning of the additional forage.

Any combining or splitting of allotments to meet management objectives will be consistent with this plan. Such actions will include consultation and coordination with the affected parties.

Monitoring of the range and the vegetation resource will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions. These data will be used to support and direct grazing management decisions consistent with national policy. Ecological range site condition mapping will be completed.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald

eagle nesting or communal winter roosting areas. Improvement activities may affect foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the planning area provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Riparian Management

Management Actions

The objectives for riparian management will be to maintain, improve, or restore riparian value to enhance forage, habitat, and stream quality. Priority for riparian management will be given to those areas identified as Colorado River cutthroat trout habitat. Management actions may include reductions in livestock numbers, adjustments in grazing distribution patterns, fencing, herding, livestock conversions, etc. Unallotted public lands containing riparian areas will be managed according to the same objective, with emphasis on wildlife and watershed objectives, but not necessarily to the exclusion of livestock uses. Refer to management actions described under all other programs for accomplishing riparian objectives. Riparian management is an integral part of all resources and related management programs. Those activities that affect or are affected by riparian values, will take into account the riparian objectives and direction. Resource values and uses that affect or are affected by riparian values include: wildlife and fisheries habitat, forest resources, livestock grazing, ORV use, visual resources, cultural and historical resources, minerals exploration and development activities, lands and realty activities, watershed and soils resources, recreation uses, fire management, and access.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with riparian management including increased human presence and use of machinery or fire to implement management actions may detrimentally influence bald eagle behavior or nesting and communal winter roosting habitats. The potential for these effects is low and the intensity is not expected to have lasting detrimental effects to bald eagle behavior. Implementation of vegetation management actions are likely to result in positive effects to bald eagle habitats in riparian areas, particularly foraging habitats, such as the creation or expansion of habitats suitable to potential terrestrial prey species.

Determination

Implementation of the riparian management actions, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects. Results of riparian management may benefit the bald eagle by creating or supplementing habitats that support bald eagle prey species.

Wild Horse Management

Management Actions

The objective of wild horse management will be to resolve conflicts for water and forage between wild horses and other resource uses. All wild horses will be removed from the planning area and made available for adoption through BLM sponsored adoption program. No forage or other resources will be provided to wild horses. No specific requirements or guidelines applicable to bald eagle mitigation are included in the management actions for this resource.

Effects Analysis

Actions associated with wild horse management are expected to be limited to occasional herding, corralling, and transporting of horses. The increase in human presence associated with these activities may temporarily alter the behavior of terrestrial foraging bald eagles. These actions are not expected to detrimentally impact the behavior of nesting or communal winter roosting bald eagles or nesting or roosting habitats.

Determination

Implementation of wild horse management, as presented in the Pinedale RMP (1988b), would have **no effect** on bald eagles. This determination is based on the extremely low likelihood that bald eagles would be adversely affected by actions associated with management of wild horses.

Forest Management

Management Actions

The objectives of forest management will be to provide a supply of forest products to the various segments of the public and to maintain or enhance other resource management objectives.

Consistent with forest management and other resource management objectives, the forested lands are classified into four management categories:

- Category 1, Intensive Management, will include areas where the forested lands would be managed for multiple-use, but with emphasis placed on forest product utilization and forest management activities.

- Category 2, Restricted Management, will include forested lands where wildlife, watershed, and recreation resource values will be emphasized and actions such as partial cutting, extended forest crop rotations, etc., or other restrictions to forest management, would be applied.

- Category 3, Management to Enhance or Maintain Other Resources, will only allow forest management activities (e.g., harvesting or thinning) on lands in this category when such activities will benefit resources or values other than forestry or will promote public safety. All forestlands included in this category are not included in the forest management base or in timber harvest calculations.

- Category 4, No Forest Management, includes all areas where forest management is excluded.

Approximately 24,223 acres of commercial conifer would be available for production of forest products. Of this 24,223 acres, approximately 20,836 acres would be subject to harvest method/equipment use and minimum cover level restrictions (Category 2). The remaining 3,387 acres would be unrestricted, except for general forest management guidelines applicable to all forest management activities (Category 1). Approximately 13,506 acres of woodland (Categories 1 and 2) will be available for forest product disposals on a demand basis. An additional 3,113 commercial conifer and woodland acres will be removed from the forest base (Categories 3 and 4). The 1,611 acres in Category 3 will be available for forest management activities when such activities are deemed necessary to maintain the integrity of the resource being protected (e.g., wildlife, watershed) or to promote public safety. All forestlands in categories 1, 2, and 3 will be available for emergency salvage of timber damaged or killed through insects, disease, wildfire, or other such events.

Forested lands in Categories 1 and 2 will be managed to harvest an estimated 18.2 million board feet of timber over a 20-year period. Average annual harvest level will involve approximately 137 acres, but may vary to meet individual sale area objectives, depending on proposed harvest methods and individual sale conditions.

Sales of forest products (sawtimber, firewood, Christmas trees, posts, poles, and wildlings) will be made available to individuals and to commercial vendors. Forest product sales will be conducted on all forest areas, except where specifically excluded (e.g., the Rock Creek drainage and 7,636 acres in the Scab Creek area).

In addition to harvest, approximately 1,200 acres of precommercial thinning will occur during the 20-year period (BLM 1985a). Precommercial thinning projects will generally be designed to achieve an 8-foot spacing (e.g., roughly 680 trees per acre would be left uncut) and should not significantly affect cover levels.

Within the general forest management objective and guidelines, each of the following four management units has separate sub-objectives and planned actions. The Deadline-Pinegrove unit will be managed to give full protection to the Colorado River cutthroat trout in the Rock Creek drainage and to maintain October 1985 levels of forest cover for wildlife in the remainder of the unit. Approximately 953 acres will be available for harvest over a 20-year period. All forest management activities will be excluded in the Rock Creek drainage. A minimum of 90 percent of the conifer acreage in the Graphite and Riley Ridge crucial elk winter ranges will be maintained. Annual cover level fluctuations will not be allowed except for emergency salvage. No clearcutting or road construction will be allowed within 1,000 feet of Beaver Creek. Exceptions will be granted only if additional site-specific analysis verifies that such actions will not adversely affect crucial Colorado River cutthroat trout habitat.

The North Piney unit will be managed to give full protection to the elk feedgrounds and to maintain October 1985 levels of forest cover for wildlife, primarily elk. All forest management activities will be excluded from the Finnegan and North Piney elk feedgrounds, except when such management would be necessary to maintain the integrity of the feedground environment. Approximately 680 acres will be harvested for forest products over a 20-year period.

The Miller Mountain unit will be managed to provide full protection to forested portions of the Fort Hill-Fontenelle elk winter range and to maintain approximately 90 percent of the conifer acreage in the remainder of the unit in cover for wildlife. Forest management activities will be excluded from the Fort Hill elk winter range. Exceptions will be allowed for emergency salvage when the wildlife will benefit. Approximately 396 acres or 10 percent of the conifer base, excluding the Fort Hill winter range, will be harvested over a 20-year period.

The Eastside-Hoback unit will be managed to give full protection to the forested portions of the elk feedgrounds and to manage the remaining forested lands for forest products on an allowable harvest/sustained yield basis. Approximately 781 acres will be harvested for forest products over the next 20 years. Forest management activities will be excluded from the Franz and Scab Creek elk feedground, except for salvage and sanitation harvests when necessary to maintain the integrity of the feedground environment to benefit the elk.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Forest management actions will occur in upland coniferous forests. In the Pinedale planning area, bald eagles are typically associated with cottonwood forests of riparian habitats for nesting and communal winter roosting and open upland habitats for foraging. These bald eagle habitats are distinct from the coniferous habitats that are subject to forest management actions. Therefore, bald eagles are not expected to experience detrimental effects as the result of forest management actions.

Determination

Implementation of forest management actions, as presented in the Pinedale RMP (1988b), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the extremely low likelihood that forest management activities may affect the bald eagle.

Wilderness Management

Management Actions

Proposed wilderness areas will be managed for wilderness values in accordance with the decision of Congress. The two wilderness study areas (WSAs) in the planning area, the Scab Creek WSA and the Lake Mountain WSA, were evaluated in two previous wilderness environmental impact statements (BLM 1981 and BLM 1983). As a result of these analyses, the BLM recommended the Scab Creek WSA for designation as wilderness and the Lake Mountain WSA for nondesignation as wilderness. Both recommendations are pending further processing and Congressional decision.

Until Congress acts, these WSAs will be managed under the "Interim Management Policy and Guidelines for Lands Under Wilderness Review" (BLM 1987b). Congressional decisions on the Scab Creek and Lake Mountain WSAs will be incorporated into the approved Pinedale RMP. Should Congress designate one or both of the WSAs (partially or entirely) as wilderness, the

management of the designated areas will be for wilderness values, as described in the appropriate wilderness EIS. Should Congress not designate one or both areas (partially or entirely) as wilderness, the management of the nondesignated areas will be in accordance with the approved Pinedale RMP. The undesignated areas will lose their identity as WSAs and will be managed along with the adjoining area as prescribed in the approved Pinedale RMP.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with wilderness management will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effect to bald eagles by limiting harassment and disturbance to suitable nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the wilderness management actions, as presented in the Pinedale RMP (1988b), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and maintain or protect suitable bald eagle habitats.

Visual Resource Management

Management Actions

The objective of visual resource management will be to maintain the overall integrity of visual resources while allowing for modification and changes to meet other resource objectives. VRM classes have been established in line with overall resource management objectives of the approved Pinedale RMP. These are subject to change and further definition as more inventories and evaluations are conducted. A program will be initiated to improve the visual quality of oil fields in the planning area by working with the companies to reduce the visual impact of existing facilities. Projects of all types within established VRM class areas will generally be required to conform with the objectives and characteristics of the classification, or the project will be modified in order to meet the VRM class objective. Short-term modifications in portions of visual class areas may be approved if a site specific environmental analysis determines that impacts would be acceptable. The VRM class areas will be monitored periodically for cumulative impacts that may potentially conflict with their classifications.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with visual resource management will not directly impact bald eagle behavior or habitats. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be suitable for bald eagles or their prey.

Determination

Implementation of visual management actions, as presented in the Pinedale RMP (1988b), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that implementation of these actions may preserve or minimize disturbance to habitats that may be suitable to bald eagles or their prey.

Off-Road Vehicle Management

Management Actions

The objective of the off-road vehicle (ORV) management will be to allow the legitimate use of ORVs where possible and provide adequate protection of identified sensitive resources. The Bench Corral elk winter range will be closed to all ORV use, including over-the-snow vehicles, from November 15 through April 30. Lands around the Franz, Finnegan, Scab Creek, Fall Creek, and North Piney feedgrounds will also be closed to ORV use and unauthorized human presence from November 15 through April 30. The Deer Hills, Oil Field, and Mesa deer and antelope winter ranges will have a winter travel limitation restricting vehicle travel from November 15 through April 30 on an as-needed basis. These seasonal limitations will be implemented in cooperation with the Wyoming Game and Fish Department during severe winters or periods of disturbance of the wildlife wintering in these areas of concern. One hundred twenty acres in the Holden Hill area will be closed to all ORV use.

In general, off-road vehicle use will be monitored periodically to determine actual use and public demands. Monitoring of high density roaded areas will be conducted as described in the section on Access Management. The Desert General Use area will remain open to generalized ORV uses. This is an area of over 224,000 contiguous acres of public land. The Desert Open Area will be monitored to determine if unacceptable impact levels are occurring or being approached, which will require that ORV use be re-evaluated and limited accordingly.

Effects Analysis

Much of the Pinedale planning area is not subject to open ORV use. ORV use in the planning area is best characterized as limited in frequency and intensity. ORV management and use in the Pinedale planning area is not expected to result in significant detrimental effects to bald eagle behavior or nesting, communal winter roosting, or foraging habitats.

Determination

Implementation of ORV management actions, as presented in the Pinedale RMP (1988), is **likely to adversely affect** the bald eagle. This determination is based on the potential for ORV use to affect nesting and roosting bald eagles.

Recreation Management

Management Actions

The objective of recreation management will be to accommodate existing uses, prevent, or mitigate environmental degradation resulting from recreation and other uses, and provide for the anticipated recreational uses and use levels in the planning area. Management emphasis will be placed on the current recreation management areas including Scab Creek, the Green and New Fork rivers, Oregon Trail routes, and Boulder Lake. Recreation facilities will be installed where needed to accommodate the anticipated recreation uses and use levels and to provide for adequate public health and safety.

The order of priority for recreation management will be:

1) Congressionally designated areas,
2) Major rivers and lakes where BLM has clear jurisdiction,
3) Areas with outstanding recreation resource values not already provided for in the area, and
4) Areas where the recreation capacity is regularly exceeded, threatening other important resource values.

Cooperative recreation projects and those with contributed funding can be given priority for development in conformance with established recreation objectives and priorities. Withdrawals from exploration and development of locatable minerals will be pursued, as necessary, on developed and semi-developed recreation sites (currently about 585 acres). Recreation management for the Scab Creek area, the Green and New Fork rivers, and the Oregon Trail routes will emphasize maintaining or improving the quality of the sites and the recreation experience. Public lands along the Green and New Fork rivers will be managed to provide fishing and floatboating opportunities. Necessary facilities will be developed to provide for protection of users and the resources. Boulder Lake will be established as a special recreation management area and related recreation facilities will be developed to improve public access and use opportunities. A maximum 16-day camping limit will be implemented throughout the planning area. Areas requiring shorter limits will be posted. Written authorizations will be required for longer periods. A temporary, no overnight camping stipulation may be imposed in an emergency. Where applicable, recreation facilities will be developed and managed in a manner that will maintain, restore, and improve riparian values. Special recreation permits, commercial recreation uses, and major competitive recreation events will include mitigation developed to ensure the protection of other resources in accordance with objectives of all resource values involved.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with recreational management and uses have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation resource management actions, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to cause bald eagle harassment, displacement and to disturb or destroy suitable nesting and communal winter roosting habitats.

Wild and Scenic Rivers Management

Management Actions

The objective of wild and scenic rivers management is to manage any wild or scenic rivers designated or studied under the Wild and Scenic Rivers Act in accordance with the designated classification or Congressional designation as wild, scenic, or recreational river.

It was determined that five upstream public land parcels along the Green River review segment meet the Wild and Scenic River (WSR) suitability factors and should be managed to maintain or enhance their outstandingly remarkable values for any possible future consideration for inclusion in the NWSRS. The suitable determination is based on the unique qualities of the diverse public land resources and their regional and national significance, making them worthy of future consideration for addition to the NWSRS.

It was determined that the remaining 25 public land parcels (the one upstream-most and 24 downstream public land parcels) within the Green River review segment do not meet the WSR suitability factors and will be given no further consideration for inclusion in the NWSRS.

Interim management practices for the five public land parcels along the Green River meeting the scenic classification (involving 8.56 miles along the river) will focus on maintaining or enhancing the outstandingly remarkable scenic, recreational, and historic values and the relatively unmodified character of the area in a near-natural setting. Any activities that would conflict with this objective are prohibited. Some intrusions on the public lands involved may be allowed if they are not readily evident or are short-lived, and do not adversely affect maintaining the scenic classification.

Fontenelle Creek will not be recommended for further evaluation for potential wild, scenic, or recreation river study. No further study or action will be taken. That is, this area will lose its identity as a potential wild and scenic river and will be managed along with adjoining or encompassing areas as prescribed in the approved Pinedale RMP.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with wild and scenic river management are not expected to detrimentally influence bald eagle behavior or impact suitable nesting, communal winter roosting, and foraging habitats. These actions will likely result in positive effects by maintaining or enhancing habitats suitable for bald eagles and their prey.

Determination

Implementation of wild and scenic rivers management actions, as presented in the Pinedale RMP (1988b), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions may maintain or improve habitats used by bald eagles and their prey.

Cultural Resource Management

Management Actions

The objectives of cultural resource management will be to:

- Resolve conflicts between cultural resources and other resource uses;
- Provide appropriate levels of protection for significant cultural resources;
- Design cultural resource management actions to maintain the value of cultural resources; and
- Provide for the scientific and educational use of cultural resources.

The various uses of the BLM-administered public lands will be managed to avoid damage to cultural resources; minimize conflicts between uses of cultural resources and other uses of the public lands; provide for appropriate mitigation of unavoidable adverse effects on cultural resources prior to their disturbance or destruction; and identify and protect cultural resources.

Cultural resource management activity plans (such as the Oregon/Mormon Pioneer National Historic Trails Management Plan) will be completed and implemented to identify, salvage, and protect cultural and historical sites. Activity plans will be prepared for any current or future sites listed on, or determined eligible for the National Register of Historic Places (NRHP), including sites 48LN300, 48SU350, and 48SU301, and the Overlook Rock Shelter, the Aspen Stone Circle site, the Cora Butte alignment site, the Willow Lake site, and the Boulder Lake site. Site-specific management prescriptions will be developed in the activity plans. Significant cultural resource sites will be nominated to the National Register of Historic Places. As necessary, withdrawal from exploration and development of locatable minerals on significant cultural resource sites will be pursued.

Cultural resource management activity plans will be developed and implemented to identify, salvage, and protect cultural and historical sites. Cooperative agreements will be pursued with local historical and archeological societies and other interested parties for attaining mutual historic preservation goals. Lands actions (e.g., exchanges) in support of cultural resource management objectives will be pursued, as appropriate.

Compliance with the cultural resource management decisions and other requirements will be monitored on:

- The performance of cultural resource permittees; and
- Stipulations on BLM leases and other use authorizations and selected sensitive sites.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of cultural resource management actions, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Lands and Realty Management

Management Actions

The objective of lands and realty management will be to provide land use authorizations in support of public needs in consideration of and in compliance with the various management decisions, goals, objectives, and resource restrictions required to protect or maintain the multiple uses and resource values described in the Pinedale RMP.

Proposals for the disposal of public lands will be considered on a case-by-case basis (e.g., transfer from the administration of the BLM to other federal agencies, or local or state governments, or disposal through methods such as Desert Land Entry, public sale, exchange, state indemnity selection, or Recreation and Public Purposes leases or patents). Generally, the preferred method of disposal will be exchange; however, any of the available methods may be used, as appropriate to individual situations. Prior to taking any disposal action, an environmental analysis will be conducted on the proposal and the involved lands will be evaluated for compliance with the disposal criteria listed in and for consistency with objectives of this RMP. Approximately 6,400 acres have been identified as suitable for future consideration for disposal, and another 14,500 acres have been identified as suitable for consideration for disposal only by exchange. Proposals to dispose of any other BLM-administered public lands will be considered and evaluated on a case-by-case basis. Special attention will be given to retaining enough public lands at the Cora Y highway crossing, at the south end of Fremont Lake, and at other important wildlife migration routes to provide for free movement of migrating big game animals. Acquisition of nonfederal lands will be pursued by BLM, if needed, to accomplish management objectives of this RMP. Such acquisition will primarily be considered in areas of predominantly federal ownership, when other management options such as cooperative agreements are not available, and then primarily through exchange. Lands actions (e.g., exchanges) will be pursued to enhance and maintain key wildlife habitats. Land exchanges to acquire state and private lands in crucial habitats in important and predominantly federal management areas (e.g., Rock Creek ACEC, New Fork Potholes, key riparian areas) will be pursued.

Desert Land Entry petition applications will be disqualified when the public lands are identified as:

1. Lands within the capability classes that the Department of Agriculture, Agricultural Stabilization and Conservation Service, is seeking to remove from cultivation under the Conservation Reserve Program.

2. Lands that the Department of the Agriculture, Soil Conservation Service show as being "nonirrigable."

3. Lands identified as sensitive, unique, or necessary to fulfill the management objectives of this RMP.

4. Agricultural land entry petition applications will also be disqualified when the public lands would be utilized for the growth of government price-supported crops, or when use of water supplies would deplete an underground water supply beyond its annual recharge capability, thus threatening existing water users.

Whenever necessary, withdrawals in support of other resource management objectives and actions will be pursued. Public lands within active livestock driveways that are continuing to serve their designated purpose, will continue to be segregated from all forms of disposal under the public land laws. The withdrawals for stock driveways that are not serving their designated purpose will be terminated. Mineral locations on stock driveways will be handled under 43 CFR 3815. Disposal proposals that will not be compatible with the continued use or purpose of stock driveways will not be approved. Existing land withdrawals (held by agencies other than BLM) currently encumbering public lands will be reviewed to determine the need for continuation, modification, revocation, or termination of the withdrawals. Classification and Multiple Use Act retention and disposal classifications (Orders W-19140, W-25810, and W-12668) in Sublette and

Lincoln counties will be terminated. In areas covered by these orders, discretionary management under the provisions of the Federal Land Policy and Management Act (FLPMA) will be consistent with the provisions of the RMP.

Applications for rights of way and other land use authorizations will be considered on a case-by-case basis. They will be processed consistent with the objectives of this RMP and will include any necessary mitigation requirements, offset retrogression, or displacement of natural resource and economic values. To the extent possible, linear rights of way (e.g., pipelines, powerlines, roads) will be routed where impacts will be least disturbing, taking into account point of origin, point of destination, and purpose and need of the project.

Areas closed to mineral leasing, having a no surface occupancy (NSO) restriction, or other otherwise identified as unsuitable for surface disturbance or occupancy in other sections of this RMP will be managed as avoidance or exclusion areas for rights of way. Such areas include, but are not limited to, recreation and cultural sites, the Rock Creek ACEC, and the Deadline Ridge-Graphite evaluation area. However, following a supporting environmental analysis, some types of rights of way projects may be allowed in such areas if they: a) would not create substantial surface disturbance; b) would be located in areas with a high potential for reclamation; c) would have impacts which would be temporary in nature; and d) would be compatible with the resource values being protected.

Areas requiring mitigations and restrictions for surface-disturbing activities will be managed as restricted areas for rights of way. Restrictions include, but are not limited to, seasonal restrictions for wildlife, sensitive watersheds, steep slopes, ORV designations, and other measures necessary to prevent degradation of cultural, historical, and recreational sites. Restricted areas for rights of way include wildlife crucial winter ranges, the Beaver Creek ACEC, the Upper Green River Special Recreation Management Area (SRMA), and the Soap Holes area. Areas that are not identified as avoidance, exclusion, or restriction areas are considered open to rights of way. Two transportation/transmission corridors are designated. Actual corridor widths will be flexible within the constraints provided in the various resource objectives of the RMP.

Corridors are preferred routes for transportation and transmission facilities. Identification of corridors does not preclude location of transportation and transmission facilities in other areas, if environmental analysis indicates that the facilities are compatible with other resource values and objectives. Further identification of corridors does not mandate that transportation and transmission facilities will be located there if they are not compatible with other resource uses, values, and objectives in and near the corridors or if the corridors are saturated. Each right of way application will be reviewed and analyzed using the environmental data that exist for the area as a basis to determine compatibility with existing uses and resource values.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Activities associated with land resource management, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Access Management

Management Actions

The objective of access management is to provide suitable public access to BLM-administered public lands. This may include acquiring new access where needed, maintaining existing access, expanding existing access facilities, or abandoning and closing access where it is not compatible with resource values and objectives.

Access across private lands will be pursued as needed through a variety of methods, including but not limited to purchase of rights of way or easements, land exchange, reciprocal rights of way, and other statutory authorities. Specific routes and acquisition procedures for securing access will be determined through route analyses and environmental analyses as part of specific project and activity planning. Where appropriate, land exchanges or cooperative agreements will be considered to provide access needs.

A detailed evaluation of high-density roaded areas in the planning area will be completed to determine needs for specific road closures and (or) rehabilitation. Priority evaluation areas include the Red Canyon, Red Castle Creek, and Fish Creek areas, as well as oil and gas fields in the southwestern portion of the planning area. Some existing roads may be closed except for administrative purposes. Specific mitigation measures and design requirements for roads will be developed through environmental analyses as part of specific project or activity planning.

Access closure, abandonment, and acquisition will be considered and established through activity planning and environmental analysis processes. Road or trail closure and abandonment will be based on desired road or trail densities; demands for new roads; closure methods (e.g., abandonment and rehabilitation, closures by signing, temporary or seasonal closures); type of access needed; resource development or protection needs; and existing uses.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Development of new and expansion of existing access to lands administered by BLM may detrimentally influence bald eagle behavior or alter suitable nesting, communal winter roosting, or foraging habitats. Potential effects to bald eagle behavior are likely to be limited in nature and

not have lasting negative effects. Alteration of habitats is expected to be limited to upland habitats. The localized nature of potential disturbance to local habitats related to access are not expected to result in changes to foraging habitats that will have long-term effects to bald eagles or their prey.

Determination

Implementation of access management actions, as presented in the Pinedale RMP (1988b), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that activities associated with creating or expanding access will result in adverse effects to the bald eagle.

Fire Management

Management Actions

The objective of fire management is to protect public safety, life, and property while providing the maximum benefits of both prescribed fire and wildfire to overall resource management. Fire will be considered a vegetative manipulation option to:

- Convert brush to other desired species,
- Rejuvenate desired species,
- Increase forage,
- Increase vegetation nutrient value and palatability,
- Promote wildlife habitat diversity,
- Improve vegetative cover on areas with insufficient protective ground cover, and
- Maintain or improve range, wildlife habitat, and watershed condition.

Fire will also be considered a management option for disposal of timber slash, seedbed preparation, hazard reduction, control of disease or insects, thinning, or species manipulation in support of forest management objectives. In preparing activity plans, consideration will be given to fire applications in meeting resource management objectives. A fire management action plan will be written for the planning area. Specific boundaries and fire management prescriptions will be consistent with or in support of the other identified resource values and management objectives.

Areas will be identified where a prescribed set of conditions will be acceptable in the event of an ignition. Prescribed fires will generally be confined to 200 acres or less in areas where current vegetation stages are desirable. Fire protection on public lands will be managed by taking appropriate suppression actions through the fire management plan. Resource and operational support for presuppression and suppression planning will be coordinated with the Forest Service, Sublette County Sheriff's Office, Wyoming State Forestry Division, and local fire protection districts.

Wilderness areas will be managed as prescribed fire areas. Fire suppression in wilderness areas requires restraint in suppression methods. In any designated wilderness areas, the fire management objective will be to manage fire in ways that will cause the least degradation to wilderness values.

Prescribed burning will be conducted so as to:

1) Not violate ambient air quality standards,
2) Avoid visibility impairment,
3) Minimize public nuisance, and
4) Minimize smoke intrusions into sensitive areas.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Pinedale RMP (1988b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, winter roosting, and foraging habitats. In addition, there are no mitigation measures included in this action that would minimize potential for effects to bald eagles.

Areas of Critical Environmental Concern

Management Actions

The objective for managing the Rock Creek ACEC is protection of the Rock Creek drainage to assure quality aquatic habitat for the sensitive Colorado River cutthroat trout and to provide crucial winter range for a portion of the Piney elk herd. The entire ACEC area and the Deadline-Graphite elk winter range area (approximately 17,100 combined acres) will be deferred from mineral leasing until a mineral and wildlife evaluation is completed. The entire ACEC will be managed as a right of way avoidance or exclusion area, where rights of way will not be allowed unless a supporting environmental analysis indicates that the action meets the objective for the ACEC, minimal impacts would occur, and(or) the action would benefit the Colorado River cutthroat trout or elk habitat.

A No Surface Occupancy (NSO) restriction for leasable minerals and other surface-disturbing activities will be applied in the 4,200-acre Rock Creek drainage (unless activities are for the purpose of benefiting the Colorado River cutthroat trout). Geophysical exploration activities in this area are restricted to portable methods only. The use of explosive charges will be prohibited if analysis determines that unacceptable adverse resource impacts would result. If analysis indicates this level of protection is necessary, the drainage area will be closed to exploration and development of locatable minerals, and a withdrawal from mineral location and surface entry will be pursued. Livestock grazing and related improvements will continue to be allowed, provided no adverse affects occur to the Rock Creek drainage. No forest management activities will be allowed within the drainage. The drainage will be managed as a Class I VRM area and will be closed to ORV use, including over-the-snow vehicles (43 CFR 8340.0-5).

Approximately 1,000 acres of the ACEC (that portion outside the drainage) will be evaluated to identify any locations where surface occupancy can be allowed. Geophysical exploration activities in this area will be evaluated on a case-by-case basis and will be restricted if analysis determines that unacceptable adverse impacts would occur to the water quality, fisheries, wildlife, recreation, or visual values in the area. This portion of the ACEC will be open to exploration and development of locatable minerals. A plan of operations will be required for any locatable minerals activities in the area. This portion of the ACEC will be managed as a Class II VRM area, and ORV use will be limited to existing roads and trails with seasonal restrictions to protect wintering wildlife. The objectives for managing the Beaver Creek ACEC are to assure quality aquatic habitat for the sensitive Colorado River cutthroat trout and to protect elk calving habitat. The area is open for consideration of mineral leasing and related activities. All vehicle use, including geophysical exploration vehicles, will be limited to existing roads and trails. This area will be closed to the use of explosive charges if analysis determines that unacceptable adverse impacts would occur to the water quality, fisheries, wildlife, recreation, or visual values in the area. The Beaver Creek ACEC will be managed to maintain, improve, or restore riparian habitat conditions. The ACEC will be managed as a Class III VRM area.

A detailed activity plan will be prepared to establish guidelines for uses that could affect or jeopardize habitat quality for the Colorado River cutthroat trout and elk calving. Management prescriptions in the activity plan will include identifying specific transportation routes to reduce the potential for spills of toxic materials, and needs for seasonal use or other types of restrictions, in compliance with the decisions stated above.

Surface disturbance within 1,000 feet of the streams and on slopes of 25 percent or greater will be prohibited. Partial timber cutting will be allowed provided that no adverse impacts will occur to the Colorado River cutthroat trout. Clearcutting or road construction within 1,000 feet of Beaver Creek will not be allowed. Exceptions will be granted only if additional site-specific analysis verifies that such actions will not adversely affect crucial Colorado River cutthroat trout habitat. Roads and rights of way will follow existing alignments unless design criteria will preclude adverse impacts to the trout and elk calving habitat. Stream crossings will be limited to lower elevations and gentler slopes. Use of equipment and vehicles, including geophysical exploration activities, will be allowed if consistent with the objectives of the ACEC.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with ACECs will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effect to bald eagles by limiting harassment and disturbance to potentially suitable nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the wilderness management actions, as presented in the Pinedale RMP (1988b), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and maintain or protect suitable bald eagle habitats.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Pinedale RMP management actions.

TABLE 8: SUMMARY OF DETERMINATIONS FOR THE PINEDALE RMP	
Resource	**Determination**
Surface Disturbance Restrictions	Not likely to adversely affect, due to beneficial effects
Air Quality	Not likely to adversely affect, due to insignificant effects
Minerals	Likely to adversely affect
Natural History and Paleontological Resources	Likely to adversely affect
Soils and Watershed	Likely to adversely affect
Wildlife Habitat	Likely to adversely affect
Livestock Grazing	Likely to adversely affect
Riparian	Likely to adversely affect
Wild Horse	No effect
Forest	Not likely to adversely affect, due to discountable effects
Wilderness	Not likely to adversely affect, due to beneficial effects
Visual Resources	Not likely to adversely affect, due to beneficial effects
Off-road Vehicle	Likely to adversely affect
Recreation	Likely to adversely affect
Wild and Scenic Rivers	Not likely to adversely affect, due to beneficial effects
Cultural Resources	Likely to adversely affect
Lands and Realty	Likely to adversely affect
Access	Not likely to adversely affect, due to discountable effects
Fire	Likely to adversely affect
Areas of Critical Environmental Concern	Not likely to adversely affect, due to beneficial effects

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Pinedale planning area.

Potential effects that could affect bald eagles or their habitats in the Pinedale FO include the following:

- Subdivision development along rivers (especially along the New Fork and Green Rivers)
- Natural gas development south of Pinedale
- Sand and gravel operations along river corridors

Implementation of the Pinedale RMP would not change any potential effects to the bald eagle that may result from current non-federal actions.

PINEDALE FIELD OFFICE: SNAKE RIVER RMP

The Snake River RMP was initiated in 1999. The Snake River planning area occupies 1,345 acres within Pinedale Field Office. At the time this biological assessment was prepared, the Snake River RMP was not finalized.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Snake River planning area and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Three bald eagle nests are known to occur in the Snake River planning area (Redder 2002) (**Figure 12**). These nests are located on privately owned lands within riparian habitats associated with the Snake River. Nine nesting territories were active along the Snake River in the planning area in 1999. From 1982-1988, six bald eagle pairs located on the Snake River between Moose and the South Park Bridge produced 50 young (Minta and Campbell 1991; Swenson, et al. 1986). Under the Pacific Bald Eagle Recovery Plan (USFWS 1986) the Upper Snake River (WY) Key Area is within Recovery Zone 18, which contains 17 nesting territories.

Communal Winter Roosting Habitat

No specific communal winter roosting or concentration areas have been identified in the Snake River planning area. Bald eagles are known to winter roost in riparian habitats associated with the Snake River. Wintering populations within the planning area are typically between 40-60 birds.

Foraging Habitat

Bald eagles are year-round residents of the Snake River planning area. Throughout the year, bald eagles largely rely on riparian corridors for foraging, but will also forage in adjacent terrestrial habitats. No concentrated foraging sites have been identified in the Snake River planning area.

Analysis of Proposed Management Actions and Effects

The following text briefly summarizes the activities and any specific mitigation measures associated with management actions in the Snake River Planning Area. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* will be applied to all surface disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and restrictions on surface occupancy that will minimize potential effects to bald eagles and their habitats. Refer to the Draft Snake River RMP for a complete explanation of each prescription.

Climate and Air Quality Management

Management Actions

Air quality program actions consist of monitoring efforts in cooperation with USFS, Wyoming Department of Environmental Quality (DEQ), and the U.S. Environmental Protection Agency (EPA). Monitoring stations are not located on lands under BLM jurisdiction, although the Jackson weather station is within the Snake River planning area. Monitoring for air quality components, including carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, particulate matter, visibility, and atmospheric deposition, is conducted from various facilities throughout Wyoming. The nearest station to the planning area is either in Yellowstone National Park (YNP) or Pinedale.

The development of additional river access points and recreation sites on lands under BLM administration would also contribute to noise and dust levels in the planning area. Smoke from campfires at primitive campgrounds would likely affect local air quality measures during the summer months, when campground use is highest.

Effects Analysis

Increases in noise, airborne dust, vehicle emissions, and smoke from campfires within the planning area may reach levels sufficient to alter bald eagle behavior. Extreme levels of dust and smoke generated during the spring and summer months may cause changes in foraging behavior and efficiency. Foraging success and efficiency during this period can have subsequent impacts on brood-rearing success. The likelihood of these factors combining to cause measurable impacts to the bald eagle population is low. Wintering bald eagles may be disturbed by dust and noise pollution created by gravel operations in the planning area. The installation and operation of the Jackson weather station will not impact bald eagles in the planning area.

Determination

Implementation of climate and air quality management actions is **not likely to adversely affect** the bald eagle, due to **insignificant effects**. Any adverse effects caused by data collection activities associated with this management action would be small, temporary, and immeasurable.

Cultural and Natural History Resources Management

Management Actions

Cultural resource management activities within the planning area consist of protecting and preserving significant cultural resources and conducting inventories and data collection for documentation and development of mitigation plans prior to surface disturbances associated with other activities. The planning area contains both prehistoric and historic cultural resources. It is not known if the planning area contains traditional cultural properties or sites considered sensitive to modern Native Americans. Actions associated with cultural resources include: class I (literature search), class II (statistical sample ground survey), and class III (extensive ground surveys) inventories, and increased vehicle traffic, and human activities associated with these inventories.

Within the planning area, formal inventory work conducted by the BLM is limited. Preserved sites under BLM jurisdiction are few in number because of the recent age of many of the Snake River floodplain sediments. Prehistoric campsites are preserved in alluvial soils on the higher terraces of the Snake River. The soils in the river channel include alluvial loams and extensive river-deposited quartzite cobbles. When cobbles dominate the surface, the potential for finding

buried sites is low. The NPS (1997) indicated that regular changes in the river channel would tend to destroy or displace prehistoric sites in the Snake River floodplain. There is a low probability of locating rock art on public lands along the Snake River, because of the lack of sandstone cliffs suitable for the inscription of petroglyphs.

The potential for locating historic period Euro-American sites in the planning area is good. The Snake River is famous for periodic flooding and many dikes, levees, water diversions, bank stabilizations, and other flood control structures were constructed during the historic period. Other possible historic period sites include stock maintenance sites, place mining sites, bridge remains, ferries, historic trash scatters, and other cultural material remains over fifty years of age. Future inventory may include an assessment of the area's historic landscape potential.

In recent years, there has been an increased interest in the archaeology near Jackson, Wyoming. Spurred by a series of NPS, USFWS, and USFS projects there is an increased understanding of the prehistory of the area. Most of these projects have concentrated on large sites where mitigative excavations have taken place.

Effects Analysis

If an archeological site were discovered, the associated inventory activities would be localized and limited to no more than a few acres. Actions associated with an archeological dig site include access or road building, increased vehicle traffic, and increased human activity. Human activities associated with class II or class III inventories may disrupt normal bald eagle behavior. However, this effect is expected to be limited in duration and severity. Increased vehicle traffic associated with an inventory may lead to a local increase in roadside carrion and subsequent vehicle collisions with bald eagles. This effect is possible but considered minor.

Bald eagles may be disturbed by human presence during a cultural inventory. If an inventory was conducted during the mating, nesting, and brood-rearing seasons and in sufficient proximity to bald eagles, their behavior may be altered. Disruption of normal behavior during the mating, nesting, and brood rearing periods may negatively impact reproductive success. In a similar manner, cultural inventories along the river may alter foraging behavior and also impact reproductive success. Human activities within the riparian corridor may also impact bald eagles occupying communal winter roosts.

Determination

Implementation of cultural and natural history resource management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles.

Fire Management

Management Actions

Fire frequency during recorded history has been low, due to the moist riparian environment which keeps lightning caused fires from spreading. Wildland fire ignitions on the BLM parcels have been infrequent, and are generally suppressed at 0.1 acre or less.

In accordance with the 2001 Federal Wildland Fire Management Policy, firefighter and public safety are the first priority in fire management. All of the Snake River parcels fall into Category A – Areas where wildfire is not desired at all. Suppression is required to prevent direct threats to life and property. The USFS has fire protection responsibility for the BLM-lands in Teton County. Under a mutual aid and protection agreement, Teton County is a first responder to any wildland fire incident on BLM-lands.

Use of prescribed fire was eliminated from detailed analysis because of the scattered nature and small size of the parcels, and the age of most of the cottonwood stands. In addition, spotted knapweed (*Centaurea maculosa*), a noxious species present on most or all of the public land parcels, will increase following fire (USDA 2002). Control of prescribed fires would be difficult due to the lack of natural firebreaks; fire control activities could cause erosion and siltation of the Snake River. Most of the BLM parcels also are near private homes, barns, and meadows, making fire control extremely important; the expanded control measures required in these situations would be cost-prohibitive.

Effects Analysis

Prescribed fires will not be used. In the case of wildfires, the use of aerial fire suppression agents, surfactants, and foaming agents could be used for emergency fire suppression activities. Emergency stabilization and rehabilitation may be completed following a wildfire. Activities could include seeding with native or nonnative species, noxious weed control, erosion control, and repairing or building temporary fencing to replace fencing burned in the fire. Fire suppression would generally benefit the wildlife habitats as these are already in limited quantity. Generally, the wildfire season would be late spring through early fall which coincides with avian reproductive activities. However, the potential exists for adverse impacts to bald eagles due to human-wildlife interactions (i.e., a higher than usual, sudden human presence to suppress a fire or extended human presence for rehabilitation), water-drops directly into nesting habitats, or habitat alterations from construction of fire breaks or roads.

Emergency consultation with the USFWS will be conducted following BLM wildfire suppression activities.

Determination

Implementation of fire management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and rehabilitation activities to harass or displace bald eagles to disturb or destroy suitable nesting, communal winter roosting, and foraging habitats.

Hazardous Waste and Waste Management

Management Actions

Hazardous materials management objectives are to protect public and environmental health and safety on lands under BLM jurisdiction, comply with federal and state laws, prevent waste contamination caused by any BLM-authorized actions, minimize federal exposure to the liabilities associated with waste management on public lands, and integrate hazardous materials and waste management policies and controls into all BLM programs. Hazardous waste sources may be from illegal dumping and abandoned waste.

In the unlikely event hazardous materials are released into the environment, a rapid and possibly sustained effort may be necessary to secure and remove or neutralize the hazardous material. Surface disturbing activities for emergency response may require a high level of human presence in areas typically void of human activity. Non-emergency removal of contaminants would be scheduled at such a time that would not cause, or would minimize adverse impacts to wildlife.

Effects Analysis

Increased human presence and activity associated with an emergency response or waste material removal within occupied bald eagle habitats would harass or displace bald eagles. Depending upon the time of year, intensity and duration of the activity, and sensitivity bald eagles in the vicinity, these actions may harass or displace bald eagles. Harassment or displacement of bald eagles during certain periods of the breeding season or during severe winter conditions may have profound impacts on bald eagle health and reproductive success. Loss of nesting or perching habitats is possible where response activities remove mature trees or when tree death occurs from contaminant exposure.

Determination

Implementation of the hazardous materials management actions is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that releases of hazardous materials and subsequent response actions will harass or displace bald eagles and disturb or destroy suitable eagle habitats. BLM does not have discretion over the release of hazardous materials, and post-activity cleanup on BLM-administered lands is rare and infrequent.

Lands and Realty Management

Management Actions

The lands and realty management objectives are to support multiple-use management goals of other BLM resource programs, respond to public requests for land use authorizations, sales, and exchanges, and acquire access to serve administrative and public needs. Maintaining "open public access to…natural resource areas," including the Snake River, for vehicle use, biking, hiking, horseback riding, and skiing is a community goal described in the Jackson/Teton County Comprehensive Plan (1994).

Public lands in the area consist of relatively small tracts with fair accessibility. While some parcels are easily accessed, other can be reached only from the river channel. Parcels that have good access include some of the largest parcels and the most valuable for recreation, including parcels 9-10, 11-14, 17-19, 23, and 26. Parcels 3 and 8 are accessible through Grand Teton National Park (GTNP), but only by hiking from public roads within the park. Parcel 23 is accessible from the Fall Creek Road. Parcel 27 can be accessed from US Highway 189/191; however, it contains a trash transfer station and access is controlled by Teton County. Parcels 4-7, 15-16, 20-22, and 24 can only be accessed from the river, and it is extremely difficult to identify the parcels from the river channel.

The BLM is responsible for administering mineral exploration and development on 15,123 acres of federal mineral estate within the planning area. This mineral estate, which is mostly outside the river corridor, underlies privately owned lands.

According to the Jackson Hole Land Trust website, roughly 9,000 acres of conservation easements, along with some private lands, have been purchased in and around Jackson Hole for the preservation of critical wildlife habitat, open space and scenic vistas, and historic ranching heritage. The Jackson/Teton County Comprehensive Plan (1994) describes the acquisition of conservation easements as "an effective programmatic strategy for accomplishing natural resource protection and preservation of community character."

Rights of way proposals would be addressed on a case-by-case basis, with emphasis on avoiding conflict or sensitive areas. The location of rights of way to cross the Snake River on public land would only be allowed at the Wilson Bridge and the South Park Bridge. The following would be right of way **exclusion** areas: raptor nesting and concentration areas; documented occurrences and associated habitats of BLM Wyoming sensitive species; ESA designated critical habitat. The following would be right of way **avoidance** areas: big game crucial winter habitat; aquatic and wetland habitat; BLM Wyoming sensitive species habitat; important cultural resources that are listed or eligible for listing on the National Historic Register; and scenic areas identified as Visual Resource Management (VRM) Class II areas.

There are no utility corridors designated on the lands under BLM jurisdiction within the planning area. No interest has been expressed in developing utility corridors on the BLM parcels because they are disconnected, interspersed with private lands, and many are located in riparian habitats. BLM-lands do not contain suitable conditions for communications sites. The BLM has granted several rights of way in the past for utilities and access roads. It is anticipated that sand and gravel development activity and the population growth in the area will continue to create a demand for rights of way.

Withdrawals are used to preserve sensitive environmental values, protect major federal investments in facilities, support national security, and provide for public health and safety. They segregate a portion of public lands and suspend certain operations of the public land laws, such as desert land entries or mining claims. Land withdrawals can also be used to transfer jurisdiction to other Federal land-managing agencies.

Effects Analysis

Improved or additional access to parcels under BLM jurisdiction would increase the potential for encounters between humans and bald eagles. Such encounters may cause harassment or displacement of bald eagles. Increased access opportunities may also increase recreational use of some parcels and subsequently result in a deterioration of suitable bald eagle habitats. Because privately owned lands are not subject to BLM mitigation measures that are intended to benefit the bald eagle and other wildlife, conversion of parcels under BLM jurisdiction to private control may increase the potential for adverse impacts to bald eagles and their habitats. Any right of way (ROW) that increases the potential for human-wildlife interaction or causes adverse habitat alterations would be detrimental to the bald eagle. The inclusion of known bald eagle habitats in the exclusion category for ROW actions would minimize impacts to the bald eagle and its habitats.

The long-term protective withdrawal on public lands and federal mineral estate that prohibits the staking and development of mining claims would be beneficial to the bald eagle and its habitats.

Determination

Implementation of lands and realty management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for harassment or displacement of bald eagles and the potential alteration of suitable habitats caused by changes in access and ownership of parcels in the planning area.

Livestock Grazing Management

Management Actions

Livestock grazing is authorized in four grazing allotments totaling 544 acres in the planning area. The level of authorized use is 300 animal unit months (AUMs). Sixty-two AUMs are authorized for spring grazing, subject to an annual authorization. The remaining use takes place primarily during the summer on 10-year grazing leases issued under section 15 of the Taylor Grazing Act. Only a few range projects have been constructed in these allotments. There are also about 529 acres of unallotted public lands.

No grazing allotment management plans or grazing systems have been implemented in the planning area. Some rangeland monitoring information, including actual use records, utilization studies, and field observations, has been collected and the condition of riparian areas has also been assessed. All of the allotments have been evaluated for conformance with the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management (Appendix B). The Walton allotment (Parcels 9-10) failed to meet standard #4 because of past heavy grazing use on a portion of the allotment, which has reduced the health of the native shrub community. Management changes intended to bring the allotment into compliance with the standard have been established. The Porter Estate allotment (parcel 21) also failed standard #4, although a cause could not be determined. Monitoring is ongoing to determine a course of action that will address this condition. The Snake River Ranch allotment (parcels 23 and 24) met all the Standards, although parcel 24 (which is not protected by the levee) generally has been lost to river erosion. While parcels 15-16 are also under grazing lease to the Porter Estate, they have not been grazed by livestock in recent years.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may harass or displace foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the planning area provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996).

Determination

Implementation of livestock grazing management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for habitat improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Minerals and Geology Resources Management

Management Actions

There have been no oil and gas discoveries near the planning area, and no oil and gas wells have been drilled within the planning area. The nearest wells to the planning area, all of which were dry holes, were drilled along the Darby Thrust Fault in and around Hoback Junction, about 14

miles south of Jackson. The potential for hydrocarbon resources within the planning area north of the Cache Creek Thrust Fault is unknown. The potential for hydrocarbon resources in the southern portion of the planning area is moderate.

Evidence of volcanic activity is present in the planning area. Numerous hot and warm springs in and around the planning area provide evidence of hot magma at depth. The geothermal potential within the study area is moderate to good. However, the potential for commercial development of this resource is low. Legislation has been introduced at the state and federal level to protect geothermal resources within the greater Yellowstone ecosystem from drilling and development. Hot springs are located on the periphery of the planning area on state and private lands.

No economic coal deposits exist within the planning area. The only coalmine known to exist within the area was on the northwest side of Boyles Hill.

The potential for the occurrence of these leasable minerals, including sodium, potassium, and oil shale, is low. No deposits are known to exist within the planning area.

Outcrops of the Phosphoria Formation in the Meade Peak Member, East and West Gros Ventre Buttes, and south of Snow King Mountain within the planning area, and Teton Pass (west of the planning area) are limited in extent because of steep bedrock dips of 15 to 60 degrees. Because of these limited exposures and steep dips in mountainous terrain, it is unlikely that any phosphate would be developed.

The Snake River channel primarily consists of material from glacial outwash deposits from the upstream portion of the Snake River, and landslide material from the Gros Ventre and other landslides located along the two rivers. The most important mineral material occurring within the planning area is gravel. Demand for sand and gravel in Jackson Hole is increasing as the number of homes, businesses, and roads in the area continues to grow. In the past, the planning area contained many gravel pits and quarries to meet the needs of highway, county, and private road construction, and levee construction and maintenance. Today, the planning area contains only three gravel operations. Two gravel companies operate on private lands along the Snake River. The third operation was located north of the South Park highway bridge to supply gravel for widening U.S. Highway 189 south of Jackson. No sand or gravel is currently commercially produced from federal lands or mineral estate in the planning area.

In portions of the river where gravel is currently being extracted from private lands, high river flows in the spring have been replacing the gravels extracted during the previous year. This creates a new supply of gravel each year in the same location.

Gold is the primary locatable mineral deposit within the planning area. The potential for gold within the river gravel is low. The gold occurs as minute flakes and flour within large volumes of sand and gravel. Recreational panning may occur on BLM-lands in the planning area. The source area for the gold is unknown.

All public lands are open to exploration for locatable minerals except those withdrawn to protect other resource values and uses or those lands with acquired mineral status. BLM has limited management authority over mining claim operations conducted under the General Mining Law (GML) of 1872. These operations are managed using the surface regulations in 43 CFR 3809. Activity authorized under the GML, is not subject to many of the stipulations that are used in the salable and leasable mineral programs to protect sensitive resources from surface disturbance caused by mineral development. There are no active mining claims within the planning area;

however, claims have been located in the past. Several claims were located in the late 1960s, with the latest activity in 1982. For the most part, these were placer claims located along the Snake River for gold but all claims in the planning area have been abandoned. The potential for placer gold development is low within the planning area, since it is unlikely that sufficient amounts of gravel could be mined to make an operation profitable. No past placer operations in Jackson Hole Valley are known to have yielded economically profitable amounts of gold.

Actions associated with locatable minerals include surface disturbance for mining, reclamation, and construction of access roads, buildings, and utility lines. An EA is required prior to any significant action. Small-scale mining may occur in the planning area but individual casual use activities do not require an EA unless activities become significant. All work must be reclaimed prior to bond release from the DEQ.

Approximately 5,937 acres of public lands and mineral estate described in public land order (PLO) 7143 (published on June 1, 1995 in the *Federal Register*) are closed to mineral or surface entry until June 1, 2005. As explained in the PLO, "mineral or surface entry" pertains to activities such as the staking and development of mining claims for locatable minerals and desert land entry, but does not apply to the sale, exchange, or transfer of public lands; mineral leasing; or the extraction of sand and gravel through sales and permits. Public land and mineral estate not included in the area described in PLO 7143 are currently open to locatable mineral or surface entry. Under the Preferred Alternative, all 15,123 acres of BLM-administered mineral estate would be closed to locatable mineral entry.

Effects Analysis

Sand and gravel mining activities may alter bald eagle behavior in the Snake River planning area. Activities associated with these operations may harass or disturb foraging bald eagles and possibly deter them from otherwise suitable foraging habitats. With the implementation of seasonal and habitat restrictions, these activities are not expected to detrimentally influence the behavior of nesting or communal winter roosting bald eagles. Sand and gravel operations are not expected to disturb or destroy existing nesting or communal winter roosting habitats. Mining activities within unoccupied suitable habitats may deter eagles from establishing new nests and communal winter roosts.

Determination

Implementation of the minerals and geology resources management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for mineral and energy development in the planning area to harass and displace bald eagles and disturb or destroy bald eagle habitats.

Off-Highway Vehicle Management

Management Actions

Most of the existing roads on the BLM parcels are part of the U.S. and/or Teton County transportation system. Off-highway vehicles (OHVs) used in the planning area include snowmobiles, motorcycles, all-terrain vehicles, and mountain bikes. OHV use on the BLM parcels is minimal, due to limited public road access and is restricted to existing roads and trails, including levees. Some exceptions may include tasks necessary for retrieval of harvested big game, fire fighting activities, or hazardous/waste material removal. However, some unauthorized trails are becoming established. Motorized boating occurs, but is currently not a popular activity. Mountain biking on the levees is a common recreation activity. Some use also occurs off road and this contributes to the perpetuation of unauthorized trails.

The BLM recognizes the use of bicycles and other human-powered, mechanized conveyances as appropriate recreational activities. Federal regulations do not specifically address management of non-motorized vehicle use. There are substantial differences in the types of use, associated impacts, and management approaches between non-motorized and motorized vehicle activities. Until a national strategy and rules for non-motorized vehicle use on public lands are established, the BLM will continue to include non-motorized use within the context of OHV designations.

Effects Analysis

Habitats that currently support bald eagle nesting and communal winter roosting are not available for public access and use of OHVs. However, under the revised RMP new access opportunities are proposed. These new access designations would likely increase the opportunity of OHV use within suitable nesting and communal winter roosting habitats. Consequently, actions associated with OHV management and use may detrimentally influence bald eagle behavior in the planning area. The primary impact to bald eagles from OHV use would be to behavior and not habitat. Any impacts from OHV use on habitat are not expected to be important to bald eagle health or survivorship in the planning area.

Determination

Implementation of OHV management actions and OHV is **likely to adversely affect** the bald eagle. This determination is based on the potential for bald eagle harassment and displacement.

Paleontological Resources Management

Management Actions

Pleistocene-age river terrace deposits along the Snake River have a low potential to contain vertebrate fossils. The occurrence of fossils in the river gravels and riparian areas is remote. There is a slightly higher potential for fossil occurrence on the parcels (20, 22, and 26) that include lands above the river terraces.

Effects Analysis

If a paleontological site were discovered, the associated inventory activities would be localized and limited to no more than a few acres. Actions associated with a paleontological investigation can include access or road building, increased vehicle traffic, and increased human activity. Human activities associated with these investigations may impact bald eagle behavior. However, these effects are expected to be limited in duration and intensity. Increased vehicle traffic associated with an investigation may lead to a local increase in roadside carrion and subsequent vehicle collisions with bald eagles. This effect is possible but considered minor.

Determination

Implementation of paleontological resource management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles.

Recreation Resources Management

Management Actions

The types of recreation activities available on BLM-lands in the planning area or as a result of public access include: float fishing and scenic floating (both private and guided), waterfowl hunting, mountain biking, hiking, dog walking, wildlife viewing, cross-country skiing and OHV

activities. Public lands in the planning area are closed to overnight camping. According to the draft RMP, development of recreational and camping sites may be pursued on select BLM parcels. Likewise, if parcels are acquired by other entities, additional public recreation facilities may be developed. There is the potential for recreational activities to occur year-round in most of the planning area, though some parcels would receive minimal use during the winter period because of poor accessibility. Visitor use is highest during the summer months.

Restricted public use is allowed on most of the private lands in the Snake River channel through recreational easements. This access does not extend outside the river levees; in many cases it does not include the levees themselves. These easements do not provide increased access to the river, but a greater range of activities when one is on the river. These easements allow for specific uses of the river on private lands, including floating, fishing, wading, hiking, and picnicking. Most notably, boats can be anchored for fishing in these areas. Other uses, including camping, building fires, and hunting are prohibited on the easements.

The majority of river floating activity occurs during the warmest months following the high flows of early summer snow melt. Float fishing use begins in April with the opening of trout fishing season and peaks as fishing conditions improve during late summer and fall. Walking, biking, and horseback riding are the most common upland activities. Swimming and wade fishing are also popular activities and most commonly occur near the public access locations provided at the Wilson Bridge and near Emily Stevens County Park, adjacent to Parcel 9.

The only developed boating access on public lands is the Wilson Bridge boat ramp (parcel 13). The Wilson Bridge boat ramp is a boating take-out and put-in for approximately 23 miles of the Snake River. This access, developed in cooperation with Teton County, consists of a gravel ramp for launching and landing boats, a parking area, restrooms, and information kiosk. The National Park Service (NPS) provides boating access at Moose, Wyoming, for floating downstream to the Wilson Bridge access. Private landowners provide some limited floating access.

The Wyoming Game and Fish Department (WGFD) provide other public boating access through an access agreement on private lands located at the north end of the South Park Bridge. An area on public lands on the south side of the South Park Bridge (parcel 26) has occasionally been used for landing and launching boats, but has not been developed for this purpose. There is currently a proposal to develop a boat launch area on public lands near the South Park Bridge. Access to this parcel is possible from Hwy 89/191 but a closed, signed gate is meant to discourage public access from March 15th through September 1st. This access was closed seasonally for the protection of bald eagle roosting/perching habitat and potential raptor nesting in the cottonwood trees.

Commercially guided scenic float and fishing trips are popular in the planning area as part of the tourism-based economy of the town of Jackson. Commercial, competitive, and large group floating activities are currently unregulated within the planning area, except where floating access is provided by the NPS. The USFS regulates commercial, competitive, and group use in river segments below the South Park Bridge. Commercial and private floating use fluctuates yearly, but water-based recreation activity and demand throughout the region has increased dramatically over the past 20 years. Rough estimates of floating use in the Wilson to South Park segment exceed 25,000 people per floating season. As many as 60 boats per day may launch from the Wilson Bridge boat ramp. The demand for these services and activities will likely continue to grow. River use allocation measures have been implemented by other land management agencies to protect wildlife habitat, provide for human health and safety, and maintain a quality recreation experience. The river segments within the planning unit provide for substantial commercial and private floating use. Upland use by the public for recreation activities on public lands and

easements within the river corridor likely exceeds 25,000 visits per year. The demand for recreation facilities and recreation activities currently exceeds the supply of services and opportunities. This imbalance is expected to continue regardless of applied existing or future management scenarios. A trend of increasing recreation visitation is also expected to continue, further widening the gap between supply and demand.

Recreation management activities may include trail and road construction, building of campgrounds and associated outbuildings, maintenance associated with management, and associated human and vehicle activities.

Effects Analysis

Actions associated with recreational management and use may impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may harass or disturb bald eagles causing eagles to avoid or abandon otherwise suitable habitats. The riparian corridor and adjacent habitats associated with the Snake River provide suitable nesting and communal winter roosting habitats for bald eagles. These habitats are also subject to the recreational management and uses described previously. These actions may disturb, degrade, or destroy habitats suitable to the bald eagle.

Determination

Implementation of recreation resource management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to harass or displace bald eagles and to disturb, degrade, or destroy suitable nesting and communal winter roosting habitats.

Soil Resources Management

Management Actions

Removal of waste rock in floodplains or streams is the principle activity associated with soil resources. Other activities may include surveying (mapping), core drilling, using truck mounted soil augers, digging soil characterization pits and shovel holes, and surface soil erosion studies. These soil resource activities in the planning area are mainly in support of other programs. Soils found along the Snake River floodplain generally are dark, poorly drained, and have a fine sandy loam surface about 24 to 30 inches thick overlying extremely gravelly loamy sand to a depth of 60 inches or more. These soils are characterized by a fluctuating water table between 3 feet and the surface from May through July and are subject to flooding from May through June. Flooding and high water tables put severe limitations on building site development, sanitary facilities, and permanent recreational facilities. Wildlife habitat potential is good and the potential as a gravel source is good. These soils are a poor source for topsoil and for material with which to construct dikes, embankments, or levees.

Upland areas, with slopes from 10 to 90 percent, are dominated by dark, well drained, silt loam or loam soils greater than 60 inches to bedrock. Some areas have rock fragments throughout the soil profile. These steep slopes are the main limitation to building site development, sanitation facilities, and permanent recreational facilities. Wildlife habitat potential is fair to good while the soils are a poor source for gravel or topsoil.

Effects Analysis

Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. Effects resulting from these potential impacts dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may ultimately maintain or improve the condition of some habitats and therefore, may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Determination

Implementation of soil resource management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the potential to disturb, degrade, or destroy suitable bald eagle habitats.

Vegetation Resources Management

Management Actions

Vegetation resources management objectives are to maintain or improve the diversity of plant communities to support livestock grazing, wildlife habitat, watershed protection, visual resources, and reduce the spread of noxious weeds. To maintain or enhance essential and important habitats for special status plants species on BLM-land surface and prevent the need for any special status plant species being listed as threatened and endangered.

The BLM has committed to meeting the following range management standards from the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Public Lands (Appendix B): Standard #2 - riparian and wetland vegetation has structural, age, and species diversity characteristic of the stage of channel succession and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for groundwater recharge. Standard #3 - upland vegetation on each ecological site consists of plant communities appropriate to the site and is resilient, diverse, and able to recover from natural and human disturbance.

The term noxious weed and invasive weed may be interchangeable, however noxious weeds are listed by the state, whereas invasive weed species are listed by the BLM. Noxious weeds common to the Snake River corridor include: spotted knapweed (*Centaurea maculosa*), Dalmatian toadflax (*Linaria dalmatica*), houndstongue (*Cynoglossum officinale*), Canada thistle (*Cirsium arvense*), and musk thistle *(Carduus nutans*).

The three types of control used by the BLM on public lands are chemical, biological, and mechanical. Chemical control is typically used in cooperation with Teton County Weed and Pest District.

Only federally approved pesticides and biological controls are used. Local restrictions within each county are also followed. The RMP states that if herbicides are proposed for use, minimum toxicity herbicides will be used with appropriate buffer zones along streams, rivers, lakes, and riparian areas, including those along ephemeral and intermittent streams. Projects that may affect threatened or endangered plants or animals will be postponed or modified to protect the presence of these species and consultation with the USFWS will be initiated.

Effects Analysis

Implementation of vegetation management actions along with measures intended to avoid bald eagles and their habitats are not expected to cause important impacts to bald eagles. Control of invasive weeds may benefit the eagle by reducing the potential for wildfires that may cause mortality to prey species and loss of habitat. Human activities associated with noxious weed control may harass or displace bald eagles and cause minor impacts to bald eagle habitats. Ultimately, vegetation management practices may improve or create habitats suitable to bald eagles and their prey.

Determination

Implementation of the vegetation management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles. Results of vegetation management may ultimately benefit the bald eagle by creating or supplementing habitats that support bald eagle prey species.

Visual Resources Management

Management Actions

The Snake River and its cottonwood forest, backed by the Teton, Gros Ventre, and Snake River mountain vistas, provides some of the greatest scenic opportunities in Wyoming. This scenery is integral to the recreation and tourism-based economy of Jackson and Teton County. Several of the public land parcels provide views of the Grand Teton and other peaks in the Teton Range.

A visual resource inventory and classification process is a qualitative analysis that was performed along the riparian corridor of the Snake River, where most human activity on public lands occurs. A visual resource inventory provides an inventory tool that portrays the relative visual quality of a landscape, and a management tool that delineates visual protection standards by which surface disturbing activities may occur and establishes guidelines for the rehabilitation of existing projects, facilities and disturbances. The BLM lands were classified as visual resource inventory Class II. To retain the characteristics of a Class II rating, actions or authorizations should adhere to the following limits: retain the existing character of the landscape; the level of change to the characteristic landscape should be low; management activities may be seen but should not attract the attention of the casual observer; and, any changes should repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Effects Analysis

VRM actions are conducted in support of and prior to authorizing other resource management efforts. The intent is preservation of an esthetic value. Mitigation to protect visual resources may include structures or facilities be screened from view, painted, or designed to blend with the surrounding landscape.

Effects caused by visual resource management activities are not expected to impact bald eagle behavior or habitats because no field activities are actually involved with VRM management beyond the classification efforts which have been completed. Implementation of VRM management protocols could have a beneficial effect where structures or facilities are removed or not authorized in areas suitable bald eagle habitats.

Determination

Implementation of visual resources management actions, as presented in the Buffalo RMP (2001), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the lack of field activities and on potential that implementation of these actions may preserve or minimize disturbance to habitats that may be suitable to bald eagles or their prey.

Watershed Resources Management

Management Actions

Both the Snake River and the Gros Ventre River can provide sizeable amounts of water and sediment. The Snake River was traditionally a wide, sometimes braided channel with multiple overflow channels. The Jackson Lake Dam and the almost continuous levee system have altered the flow of water and sediment in the system to the point that the land form between the levees is rapidly changing. The levee system has reduced the river's access to many of its historic overflow channels. This has resulted in changes to the channel system, as well as changes in sediment and energy transport and distribution.

As a result of the high bed load and high flows, the river tends to switch channels frequently. This, in combination with the artificially confined nature of the channel, has created some concern for the remaining islands within the levee system as well as for the stability of the levee system itself. The Snake River Restoration Project has been proposed by Teton County and the U.S. Army Corps of Engineers to help address this situation.

The BLM manages a relatively small amount of land within the Wyoming portion of the Snake River corridor. This, in combination with the high percentage of private land, the levee system, and efforts to manipulate the channel within the levees suggests that the overall effect on water quality from activities taking place on BLM-lands is minor in comparison to the potential presented by the surrounding lands. Recreation related activities and unauthorized dumping are the actions that are most likely to take place on BLM managed lands that could directly affect water quality. Sanitation facilities at key recreation sites and site visits to BLM parcels by land managers help to reduce negative impacts but cannot prevent all undesirable activities.

The Snake River on the BLM parcels was assessed for Proper Functioning Condition on August 15, 1996. On all parcels, the river was determined to be in nonfunctioning condition, primarily because the river levees prevent access to its natural floodplain, prevent regeneration of the cottonwood stands along its banks, and channelize the flow.

The BLM parcels contain some lentic surface water features, such as oxbow lakes and wetlands that have water tables closely tied to the stage of the river. These features are generally located away from the main recreation corridor. Within the levee system, movements of the main channel and efforts to restrain this movement can have a marked effect on the water quality of an individual water body through both erosion and stagnation behind newly constructed features. Given the comparatively small size of these water bodies, the effect that they have on water quality in the Snake River is most likely undetectable.

Water features that exist on BLM parcels outside of the levee system appear to have water levels closely tied to the level of the Snake River. Seeps and springs that have other water sources may exist but they are not immediately evident. Conditions of the water features outside the levees tend to be less disturbed than those within. Conditions also appear to be closely tied to the level of grazing and recreational activity associated with the area.

Effects Analysis

Bald eagles may be affected by activities associated with watershed and water management. Adverse impacts could occur where new levees are constructed that cause a direct loss of habitat or where the long-term effects of river diversion cause a reduction in cottonwood regeneration. Roosting bald eagles may temporarily leave the area and foraging bald eagles may be unable to use an area while construction and associated activities take place. Since nest initiation occurs in late winter, nesting bald eagles may abandon their nests during levee-work activities. Activities on private lands, where most bald eagle nesting occurs, could disturb or modify their behavior and alter the habitat over time. Restoration of wetland or riparian areas may benefit the bald eagle and its prey species by creating habitat.

Determination

Implementation of watershed resources management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for take and the alteration of bald eagle habitat resulting from numerous projects along the Snake River.

Wildlife and Fisheries Resources Management

Management Actions

Wildlife habitat management objectives include: maintain biological diversity of plant and animal species; support the WGFD strategic plan population objective levels to the extent practical and consistent with BLM multiple-use management requirements; maintain, and where possible improve, forage productions and quality of rangelands, fisheries, and wildlife habitat; and provide habitat for endangered, threatened, and special status animal and plant species on BLM-land surfaces in compliance with the ESA and approved recovery plans.

Wildlife program projects may include: surveying, monitoring, habitat improvement activities such as developing habitat management plans (HMPs), fence modifications, creating catchment ponds, building nest boxes, or artificial nesting structures. Annual surveys and inventories would be conducted for active bald eagle nesting, roosting, and foraging areas; these surveys may be conducted by entities other than the BLM. These data will enhance the protection of known bald eagle use areas. Surveys and monitoring would be conducted in a manner to minimize, and avoid if possible, disturbance to bald eagles. Activities that improve fisheries habitat also may provide additional foraging locations or a greater supply of prey. Improvements to ungulate habitat may improve habitats of smaller mammals. If habitat improvements increase the ungulate population or sustain the existing population for a longer period of time, elk may transition to the feeding grounds later.

Effects Analysis

Wildlife management activities may harass or displace bald eagles and may disturb, alter, or destroy suitable bald eagle habitats. Increased human activity associated with typical surveying and monitoring efforts may alter the behavior of bald eagles. Resource improvements, including construction of upland water sources or other habitat improvements, may impact suitable bald eagle habitats. These impacts, although possible, are not expected to result in impacts to bald eagle health or survivorship in the planning area because of a lack of intensity and duration. It is possible that many wildlife improvement projects would initially impact bald eagles because of the increased human activity and small-scale habitat alteration. However, when completed, these projects may benefit eagles by providing for improved habitats for suitable prey species.

Determination

Implementation of wildlife habitat management actions is **likely to adversely affect** the bald eagle. This determination is based on the potential for wildlife habitat improvement projects to cause take.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Snake River RMP management actions.

TABLE 9: SUMMARY OF DETERMINATIONS FOR THE SNAKE RIVER RMP

Resource	Determination
Climate and Air Quality	Not likely to adversely affect, due to insignificant effects
Cultural and Natural History	Likely to adversely affect
Fire	Likely to adversely affect
Hazardous Waste	Not likely to adversely affect, due to discountable effects
Lands and Realty	Likely to adversely affect
Livestock and Grazing	Likely to adversely affect
Minerals and Geology	Likely to adversely affect
Off-Highway Vehicle	Likely to adversely affect
Paleontological	Likely to adversely affect
Recreation	Likely to adversely affect
Soil	Likely to adversely affect
Vegetation	Likely to adversely affect
Visual	Not likely to adversely affect, due to beneficial effects
Watershed	Likely to adversely affect
Wildlife and Fisheries	Likely to adversely affect

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Snake River planning area. Potential effects that could affect bald eagles or their habitats in the Pinedale FO include the following:

- Subdivision development along rivers
- Sand and gravel operations along river corridors

Implementation of the Snake River RMP would not change any potential effects to the bald eagle that may result from current non-federal actions.

RAWLINS FIELD OFFICE

The *Record of Decision and Approved Resource Management Plan for the Great Divide Resource Area* was signed in November 1990 (BLM 1990b). The Great Divide Resource Management Plan (RMP) provides the management direction for approximately 4 million acres of BLM public surface lands and an additional one million acres of federal mineral estate in the Rawlins Field Office (FO). The Rawlins FO occupies portions of four counties including Laramie, Albany, Carbon, and Sweetwater in south central Wyoming. Approximately 12.5 million acres are within the administrative boundary of the Rawlins FO, of which 5 million acres are under BLM management. The remaining 7.5 million acres are not covered by the Great Divide RMP. These surface acres are administered by other agencies, primarily the U.S. Forest Service or are owned privately or by the State of Wyoming. The Great Divide RMP does not address these acres because the plans proposed by the Forest Service and other agencies provide the basis for the BLM's administration of subsurface resources.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Rawlins FO and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Forty bald eagle nests are currently known to occur within the Rawlins FO (**Figure 13**) (Apple 2002; Redder 2002; Van Fleet 2002). The status/current use of several of these nests is not known. Twenty-nine nests are located on privately owned lands, six are on lands administered by BLM, and five nests are located on lands administered by other federal agencies. The majority of these known nests are located in riparian habitats associated with the North Platte, Encampment, and Snake Rivers.

Communal Winter Roosting Habitat

One communal winter roost is known within the Rawlins FO (**Figure 13**) (Apple 2002; Redder 2002; Van Fleet 2002). This roost occurs in riparian habitat associated with the Little Snake River.

Concentrated Foraging Habitat

No concentrated foraging habitats, such as ice-free water bodies, crucial big game ranges with high winter mortality (e.g., starvation or vehicle collisions) or cattle or sheep stockyards are known to exist in the FO (Apple 2002). General foraging habitats associated with rivers, streams, lakes, reservoirs, and open, upland habitats occur in the FO and are suitable foraging areas for bald eagles when they support sufficient populations of prey.

Figure 13: Rawlins Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

Existing Conservation Measures

The following section presents measures included in the Rawlins/Great Divide RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) "The objectives for management of the Jep Canyon ACEC are to maintain the integrity of crucial winter habitat for elk, to maintain the productivity of nesting raptor pairs, to allow for development of oil and gas and coal, and to seek the cooperation of owners of adjacent property in management of the habitat" (BLM 1990b, p. 6).

(b) "The objectives for management of (Shamrock Hills Raptor Concentration Area) are to maintain the productivity of nesting raptor pairs, to allow for development of coal and oil and gas, and to seek the cooperation of owners of adjacent property in management of raptor nesting habitat" (BLM 1990b, p. 9).

(c) "Surface-disturbing activities will be intensively managed to maintain raptor nesting habitat" (BLM 1990b, p. 9).

(d) "Special attention will be given to maintenance of wildlife habitat on 13,140 acres that contain crucial winter range for big game and other important habitat" (BLM 1990b, p. 26).

(e) "Site specific management actions will be implemented in HMP areas and cooperative management areas to improve wildlife habitat. Wildlife and wildlife habitat inventory and monitoring will be implemented in all HMP areas, cooperative management areas and other portions of the planning area. The estimated areas that will be involved in management actions in HMP areas (include) 271,000 acres of raptor habitat" (BLM 1990b, p. 41).

(f) "Raptor Concentration Areas Management Objectives – To manage resources so that productivity on nesting raptor pairs is maintained, while allowing for development of coal and oil and gas, and to seek the cooperation of owners of adjacent property in management of raptor nesting habitat" (BLM 1990b, p. 43).

(g) "Surface-disturbing activities will be intensively managed in all raptor concentration areas to reduce physical disturbance of raptor habitat and disturbance of the birds" (BLM 1990b, p. 43).

(h) "The BLM will consider consolidating public land to obtain important wildlife habitat areas such as … raptor concentration areas" (BLM 1990b, p. 45).

(i) "To protect important raptor and/or sage and sharp-tailed grouse nesting habitat, activities or surface use will not be allowed from February 1 through July 31 within certain areas encompassed by the authorization. The same criteria apply to defined raptor and game bird winter concentration areas from November 15 through April 30" (BLM 1990b, p. 48).

(j) "Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (name) which is a threatened or endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that (name) occurrence is identified, the

lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications)" (BLM 1990b, p. 49).

(k) "For the protection of nesting eagles and prairie falcons and the their associated buffer zones, no surface operations will be allowed in such areas as long as the USFWS determines that nest viable" (BLM 1990b, p. 61, 62, 63, 65).

Analysis of Proposed Management Actions and Effects

The RMP includes descriptions of each management prescription applied within the FO. The following text briefly summarizes the activities and any specific mitigation measures associated with each management prescription. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* will be applied to all surface disturbing or disruptive activities. As described previously, these guidelines include timing limitations and restrictions on surface occupancy that will minimize potential effects to bald eagles and their habitats. Refer to the Great Divide RMP for a complete explanation of each prescription.

Planning and Management for Areas of Critical Environmental Concern

Management Action

Four Areas of Critical Environmental Concern (ACECs) are designated in the Rawlins FO and include Como Bluff, Sand Hills, Jep Canyon, and Shamrock Hills. Each of these areas is managed to achieve goals and objectives specific to the area and special resource values of the area. These ACECs are designated to protect unique resources including cultural values (Como Bluff), unique vegetation and wildlife habitats (Sand Hills), big game crucial ranges, raptor nests, and oil and gas exploration (Jep Canyon and Shamrock Hills).

Management actions for other programs in the ACECs will be guided by the general RMP decisions found in the other sections of the RMP. Management actions for ACECs include appropriate application of *The Wyoming BLM Standard Mitigation Guideline for Surface Disturbing Activities*.

Effects Analysis

Activities in each of the ACECs will be similar to activities contemplated under the various other management actions in this RMP, with the exception that additional restrictions on ground-disturbing activities will be applied. Special restrictions will be applied in ACECs to management actions including: cultural and paleontological resources, minerals, fire, off road vehicles, vegetation/soils, and wildlife habitat. None of these additional restrictions are specifically directed towards protecting bald eagles or their habitats, but they may indirectly benefit bald eagles by preventing some disturbances that would otherwise occur. The effects of each of these management actions are analyzed individually in the following sections. The analysis of these effects has determined that several of the management actions may result in detrimental changes to bald eagle behavior or habitat.

Determination

Implementation of ACEC management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for resource management actions conducted within the ACECs to harass and displace bald eagles or disturb bald eagle habitats.

Cultural Resources Management

Management Action

The objectives of cultural resource management are to:

- Protect and preserve representative samples of the full array of cultural resources for the benefit of scientific and socio-cultural use;
- Ensure cultural resources are given full consideration in all land-use planning and management decisions;
- Manage cultural resources so that scientific and socio-cultural values are not diminished, but rather are maintained or enhanced; and
- Ensure BLM's undertakings avoid inadvertent damage to both federal and nonfederal cultural resources.

The BLM will conduct Class I, II, or III inventories for actions involving BLM administered public land and/or federal minerals that include surface disturbance as part of the action. The BLM will also evaluate the significance of cultural resources identified during inventory in consultation with the Wyoming State Historic Preservation Office to determine whether the resources are eligible for inclusion on the National Register of Historic Places.

The BLM will seek listing on the National Register of Historic Places for eligible sites along the trails. The BLM will take appropriate actions (such as protective fencing of trail segments or stabilization of deteriorating buildings) to meet the objectives for significant trail segments. Where appropriate, the BLM will pursue opportunities to acquire legal access to trail segments. The BLM will categorize cultural resources for management purposes (e.g., public use, scientific, socio-cultural). The above actions will be carried out in accordance with law, policy, and guidance to meet the objectives for cultural resources management.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of cultural resource management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Paleontological Resource Management

Management Action

The objective of paleontological resource management is to maintain the integrity of the scientific value of paleontological resources. Inventories will be conducted on a case-by-case basis for each proposed surface-disturbing activity to ensure the integrity of paleontological values. No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with paleontological resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with paleontological resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of paleontological resource management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Fire Management

Management Action

The objectives of fire management are to concentrate fire suppression efforts in areas that contain high resource or human values and in areas with intermingled landownership patterns, and to use prescribed fire to help meet the objectives of other programs (such as the reduction of fuels or the maintenance or improvement of wildlife habitat or range condition). Approximately 60 percent of the FO is designated a full suppression area. There are no equipment restrictions. Approximately 3 percent of the FO is designated a full fire suppression area "with management options." Restrictions may be placed on the use of standard full suppression firefighting techniques. Approximately 36 percent of the FO is designated a limited fire suppression area. Approximately 1 percent of the FO is proposed for a limited suppression classification following consultation and agreement with the landowners in the area. If agreement cannot be reached to allow limited suppression of wildfires, the area will be managed under a full suppression classification.

A fire management plan will be prepared containing criteria for protecting high resource values such as significant cultural resources, crucial winter range for big game, high priority watersheds, and high-value scenic areas. The fire management plan will include operational aspects of implementing limited suppression designations. An escaped fire analysis will be conducted to determine the appropriate course of action if fires cannot be contained within the first burning period or if they exceed the criteria established for limited suppression. Prescribed burning will be used to achieve management objectives such as those for allotment management plans (AMPs) and habitat management plans (HMPs). Prescribed fire proposals will be considered case-by-case to ensure environmental integrity and consistency with multiple resource objectives and activity plans.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, winter roosting, and foraging habitats. In addition, there are no mitigation measures included in this action that would minimize potential for effects to bald eagles.

Forest Management

Management Action

The objective of forest management is to enhance the health and productivity as well as diversity of the forestlands through forest management practices. The allowable harvest level is 20 million board feet (MMBF) per decade. This will be harvested from the commercial forestlands in the FO that are available for intensive or restricted management of forest products (about 25,900 acres or 23 percent of the total forestland in the FO). The following are the types of actions that will be taken to meet the forest management objectives on these lands.

- About 19,200 acres will be intensively managed for forest products. These lands will be managed to achieve a highly productive forest by implementing activities that will enhance tree growth and health. Full consideration will be given to multiple-use values. Timber sales will be concentrated in these areas.

- About 6,700 acres will be under restricted management for forest products. Included in this category are areas such as steep slopes and riparian areas with buffer zones around them.

- Forest management practices such as timber harvesting, regeneration of disturbed sites, stand replacement and precommercial thinning will be carried out to meet the forest management objectives.

- Stands of unmerchantable, nonproductive lodgepole pine will be replaced with young, vigorous trees.

- Minor wood products such as fuelwood, posts and poles, Christmas trees, and wildings will be available on demand.

- The BLM will pursue opportunities to acquire or maintain legal access to certain areas of public land to support intensive management of commercial forestland (see the Lands Program - Access section for areas of access needs).

- Consolidation of landownership on Elk Mountain and Shirley Mountain will be considered as opportunities arise.

- About 85,200 acres of other forestlands will be managed only to enhance other uses. Aspen, juniper, and other noncommercial tree species are included in this category.

- About 300 acres are not available for management of forest products because the timber is not harvestable and because of the small size of the stands, their scattered locations, or terrain limitations.

Under the Rawlins FO guidelines, all habitats within 300 feet of a riparian zone are to be avoided. No additional requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

In the Rawlins FO, bald eagles are typically associated with cottonwood forests of riparian habitats for nesting and communal winter roosting and open upland habitats for foraging. Forest management actions will primarily occur in upland coniferous forests. In addition, some forest thinning occurs near the Encampment River, which contains bald eagle habitat. Bald eagles and associated bald eagle habitat could experience detrimental effects as the result of forest management actions.

Determination

Implementation of forest management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle. This determination is based on the possibility that forest management activities may affect the bald eagle.

Lands Program Management

Management Action

The objectives of lands program management are to support the goals and objectives of other resource programs for managing the BLM-administered public lands and to respond to public demand for land use authorizations.

All BLM administered public lands will be open to consideration for placement of utility/transportation systems, but such systems will be located next to existing facilities whenever possible. Areas with important resource values will be avoided where possible in planning for new facility placement and routes. If it becomes necessary for facilities to be placed within avoidance areas, effects will be intensively mitigated.

Communication site plans will be developed for all existing and any new sites. New sites may be established, with appropriate analysis, on a case-by-case basis. Site categories will be established for all communication sites according to the following criteria: High-power communication sites will be reserved for broadcast television and radio transmitters of 100 watts or more. Low-power communication sites will be reserved for microwave, mobile telephone/radio, and other transmitters using fewer than 100 watts. A 2-mile buffer will be maintained around all communication sites to ensure their integrity.

About 66,000 acres are identified as available for consideration for disposal under the disposal criteria of FLPMA. These lands may be disposed by any appropriate means permitted under the land laws, including desert land patent, exchange, sale, and recreation and public purpose (R&PP) patent. These lands are lands that were identified during the planning effort for the Great Divide Resource Management Plan as having met the FLPMA disposal criteria. The inventory of public lands that meet the FLPMA disposal criteria was not completed for the entire RMP FO. No RMP decision has been made to the effect that any of these lands will be disposed of or that these lands are the only public lands in the FO that may be considered for disposal. In addition, proposals for disposal of lands not identified as meeting the FLPMA criteria will be considered if they are consistent with the objectives of the RMP.

Before taking any disposal action, consideration will be given to each individual tract and will include public involvement. The preferred method of disposal or acquisition of lands by BLM will be through exchange.

Reviews of withdrawn lands in the FO, under section 204(1) of FLPMA, will be completed to determine whether existing withdrawals are serving or needed for their intended purposes. These reviews are not a part of developing the RMP. Thus, no decisions are made on the termination of any withdrawals in this RMP. The existing withdrawals in the FO will remain in place unless or until it is determined they should be terminated and, if necessary, a plan amendment to the Great Divide RMP is made. Such determination or amendment will be based upon full examination of the issues associated with withdrawal terminations, including the land use, environmental and other factors associated with opening public lands now closed to entry under the public land laws or to mineral location under the mining laws. The BLM will initiate new withdrawals that would close areas to operation of the public land laws, including disposal, and to mineral location under the mining laws. This includes recreation sites, 650 acres; historic sites, 1,320 acres; and a rare plant population, 10 acres.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Activities associated with land resource management, as presented in the Great Divide RMP (1990b), are **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Livestock Grazing Management

Management Action

The objective of livestock grazing in the Rawlins FO is to enhance livestock grazing while maintaining a balance between economic uses and the enhancement of wildlife habitat, watershed, and riparian areas, and while maintaining or improving range conditions over the long-term. There are three separate grazing EISs covering the Rawlins FO. Two of these EISs (the Divide Grazing EIS and the Seven Lakes Grazing EIS) were completed prior to developing the Great Divide RMP. The livestock grazing management decisions for the Divide Grazing EIS area and the Seven Lakes Grazing EIS area will continue in effect as outlined in the Divide and Seven Lakes Rangeland Program Summaries (RPS). These two RPSs are incorporated into the Great Divide RMP by reference. The RPS for the Medicine Bow Grazing EIS area (covered in the Great Divide RMP/EIS) will be developed in the near future. In conjunction with that RPS, a single set of priorities encompassing all three grazing EIS areas will be developed to coordinate the entire rangeland management program for the Rawlins FO.

The livestock grazing management objective for the Rawlins FO is to enhance livestock grazing while maintaining a balance between economic uses and the enhancement of wildlife habitat, watershed, and riparian areas, while maintaining range condition at, or improving range condition toward, the potential for the ecological site. Livestock grazing use in the FO will be continued. Livestock grazing will also be managed to provide for protection or enhancement of other resource values. The total authorized livestock grazing use will not exceed the recognized active preference in the FO. Currently, this is a maximum of 480,754 Animal Unit Months (AUMs) of annual forage use (161,340 AUMs are in the Medicine Bow Grazing EIS area; 262,101 are in the Divide Grazing EIS area; and 57,313 in the Seven Lakes Grazing EIS area). The current amounts, kinds and seasons of livestock grazing use will continue to be authorized until monitoring indicates a grazing use adjustment is necessary or that a class of livestock or season of use modification can be accommodated. Requests for changes in seasons of use or kind of livestock will be considered case by case. Requests for conversions from sheep to cattle will be considered with management actions to maintain or improve riparian conditions.

Any adjustments in livestock grazing use will be consistent with current policies and procedures and as a result of inventories, monitoring studies and consultation, coordination or negotiation with grazing permittees. Adjustments may also result from land use planning decisions to change the allocation of land uses or from transfers of BLM administered public lands to other agency jurisdictions or into nonfederal ownership. The Rawlins rangeland monitoring plan will be reviewed and updated annually. This monitoring plan, which details the type and purpose of monitoring to be done at the allotment level is on file in the Rawlins administrative office. Grazing systems will be designed to achieve the livestock grazing objective. Existing allotment management plans, (AMPs) will be maintained and updated as necessary. New AMPs will be developed for selected grazing allotments as funding allows. "I" allotments have first priority. Existing types and levels of grazing use will be continued in "M" allotments. Proposals to change existing use may require changes in the allotment categorization and level of management attention and monitoring. Maintenance and development of range improvements may be undertaken to enhance multiple-use values. Private investment will be encouraged and authorized when consistent with the multiple-use objectives for the allotment. Grazing use in "C" allotments will continue at present levels. Proposals for changes in use will be reviewed and allowed if they do not conflict with other values. Private investment in range improvements will be allowed when it does not conflict with multiple-use of the public land in the allotment.

Within the Medicine Bow grazing EIS area, livestock grazing will continue to be excluded from the Pennock Mountain Wildlife Habitat Area (6,285 acres), the Wick Wildlife Habitat Area (320 acres), the Laramie Peak Wildlife Habitat Area (2,858 acres), and the Sybille Wildlife Research Unit (680 acres). A grazing agreement has been negotiated in the Split Rock/Duck Creek Agreement Area (1760 acres) that accommodates the special needs of the Bighorn Sheep using the area for lambing. A projected 1,725 acres of riparian habitat will be the object for development of grazing treatments. Special riparian needs will be the primary consideration in the location and design of range improvements and grazing systems in these areas. If necessary, livestock use will be excluded from riparian areas until they improve sufficiently to support limited seasonal grazing. Special attention will be given to maintenance of wildlife habitat on 13,140 acres that contain crucial winter range for big game and other important habitat. These areas will also receive special attention in the development and implementation of AMPS and other activity plans.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may affect foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively, these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Minerals Management

Management Actions

The management objective for coal resources is to provide for both short- and long-range development of federal coal in an orderly and timely manner, consistent with the policies of the federal coal management program, environmental integrity, national energy needs, and related demands; to protect important resources by specifying whether federal coal can be leased for surface, subsurface, or in-situ mining methods; and to allow analysis of alternative areas in consideration of future leasing activities. A north-to-south coal development sequence will be followed in the entire area west of Rawlins and south of Interstate 80 as needs are identified. The BLM will process all applications for leasing in areas identified as acceptable for further consideration of coal leasing. For each application, BLM will conduct a site-specific environmental analysis and will consider the development sequence described above and other environmental and socioeconomic factors.

The management objective for oil and gas is to provide opportunity for leasing, exploration, and development of oil and gas while protecting other resource values. The entire FO is open to oil and gas leasing. Leases will be issued with needed restrictions to protect resources. Surface-disturbing activities will be restricted and intensively managed to maintain important resource values in the ACECs, the Baggs Elk Crucial Winter Range, and in overlapping crucial winter ranges for the various big game species. All lands that are open to oil and gas leasing are also open to geophysical exploration. In cases where federal oil and gas leases are or have been issued (1) without stipulated restrictions or requirements that are later found to be necessary; or (2) with stipulated restrictions or requirements that are later found to be insufficient; the needed restrictions or requirements may be included in approving subsequent exploration and development activities. These restrictions or requirements may only be included as reasonable measures or as conditions of approval (COA) in authorizing applications for permit to drill (APD), sundry notices, or plans of development (POD). Conversely, in cases where leases are or have been issued with stipulated restrictions or requirements that are later found to be excessive or unnecessary, the stipulated restrictions or requirements may be appropriately modified, excepted or waived in authorizing APDs, sundry notices, or PODs.

The management objective for other leasable minerals is to provide opportunity for leasing, exploration, and development of oil shale, geothermal resources, and nonenergy leasable minerals while protecting other resource values. The entire FO is open to leasing of oil shale, geothermal resources, and nonenergy leasable minerals. Lease applications will be considered on a case-by-case basis. Stipulations to protect important surface values will be based on interdisciplinary review of individual proposals and environmental analysis.

The management objective for locatable minerals is to provide opportunity for location of mining claims and mineral development while prohibiting such activities on lands that are not compatible with these types of activities. The entire FO is open to location of mining claims and mineral development except for areas that are closed or to be closed and withdrawn from mineral location.

The management objective for salable minerals is to provide availability of mineral materials in convenient locations for users while protecting surface resources. The FO is open to the sale of mineral materials. Sales will be considered on a case-by-case basis. Stipulations to protect important resource values will be based on interdisciplinary review and analysis of individual proposals.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations

and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of minerals management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Recreation Management

Management Action

The objectives of recreation management are to ensure the continued availability of outdoor recreational opportunities, to meet legal requirements for the health and safety of visitors and to mitigate conflicts with other resource values.

Existing activity plans for the Nine Mile Hill and Big Creek sites will be revised before implementation. Maintenance of existing developed and undeveloped recreation sites will be continued. Priority for development of new recreation sites will be as follows: (1) a boat launch and a picnic area at Prospect Creek, (2) a recreation site at Jelm Mountain, and (3) a recreation site in the Shirley Mountains. Additional sites will be considered for development in the future as opportunities arise.

The Continental Divide National Scenic Trail SRMA covers 80 miles of trail through BLM-administered public land. The area will be managed to provide opportunities for trail users to view the diverse topographic, geologic, vegetative, and scenic phenomena and wildlife that characterize the Continental Divide and to observe examples of human use of the natural resources. The exact trail route will be identified through activity planning, which also will determine where easements or rights of way will be needed on private or state-owned land.

The North Platte River SRMA is 3,550-acre and will be managed to provide high-quality recreational opportunities, especially for boating, fishing, camping, and sightseeing. Management also will be aimed at providing public facilities and continued access. Surface-disturbing activities within 1/4 mile on either side of the river will be restricted to maintain the quality of the visual resources. An activity plan has been written for a portion of this area. That plan will be revised to include the entire SRMA.

The Shirley Mountains SRMA is 24,800-acres and will be managed to provide for protection and enjoyment of the cave system while other resource uses will be allowed aboveground. Specific recreation management guidelines and surface use guidelines will be developed during activity planning.

With some exceptions, the FO is open to use of motorized over-the-snow vehicles, provided that they do not adversely affect wildlife or vegetation. With some exceptions, all other motorized vehicle use in the FO is limited to existing roads and trails.

Plans for rehabilitation or mitigation of ORV use will be developed and implemented for specific problem areas within the Sand Hills area and the Dune Ponds Cooperative Management Area.

Because of the mixed land ownership pattern and multiple resource concerns, completion of an effective ORV implementation plan for the Dune Ponds area is entirely dependent on close coordination with private land owners of adjacent property, the Wyoming State Land Board, Wyoming Game and Fish Department, and other interested parties. The plan will also be closely coordinated with the wildlife, soils, and livestock grazing programs to ensure multiple resource concerns are addressed.

Consistent with the Wyoming BLM access policy, the BLM will pursue opportunities to acquire legal access to certain areas to ensure continued availability of outdoor recreational opportunities. Consolidation of land ownership will be pursued in the following areas to increase recreational opportunities for the public. The areas in order of priority are: High - Bennett Peak, Dugway, Miracle Mile, North Platte River area; moderate - Dune Ponds, Elk Mountain, Shirley Mountains caves; and low - Bennett Mountains, Encampment River Canyon, Ferris Mountains. The preferred method of consolidation is through exchange.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with recreational management and use have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to cause bald eagle harassment, displacement and to disturb or destroy suitable nesting and communal winter roosting habitats.

Sensitive Plants Management

Management Action

The objective of sensitive plants management is to maintain or enhance the population of two plant species and one community within the FO. The plants are Gibben's beardtongue (*Penstemon gibbensii*) and the persistent sepal yellowcress (*Rorippa calycina*); the community is the Muddy Gap cushion plant community. Management actions at these locations will be restrictive as an effort to protect these areas from surface disturbance activities that may risk the longevity of these populations and community. No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with the management of sensitive plant resources will have not influence bald eagle behavior or habitats.

Determination

Implementation of sensitive plants management actions, as presented in the Rawlins RMP (1990b), will have **no effect** to the bald eagle. This determination is based on the localized nature of these actions and expected lack of bald eagle occurrence or habitats in these areas.

Soil, Water, and Air Management

Management Action

The objectives of soil, water, and air management are to:

- Prevent the deterioration of air quality beyond applicable local, state, or federal standards and to enhance air resources where practical.
- Prevent impairment of important scenic values that may be caused by declining air quality.
- Maintain soil cover and productivity where they are adequate and to increase soil cover and productivity where they are in a downward trend.
- Maintain riparian areas in good or excellent condition and to improve riparian areas that are in fair to poor condition.
- Control flood and sediment damage from natural or human-induced causes.
- Reduce salt loading in watersheds that are within the Colorado River Basin.
- Meet or exceed established standards for quality of surface water and groundwater where water and quality has been lowered by human-induced causes.
- Provide for physical and legal availability of water for use by the public and by federal, state, and local agencies for fisheries and wildlife and for livestock, recreational, municipal, and industrial uses.

The BLM will implement intensive land-use practices to mitigate salt and sediment loading caused by surface-disturbing activities. These practices will be carried out in the following areas in priority order: (1) Muddy Creek, (2) Sage Creek, (3) Second and Third Sand creeks, and (4) the Little Snake River Basin (excluding the Muddy Creek watershed). Watershed or other activity plans will address site-specific problems and will include monitoring for salt, and sediment loading. In other areas, the BLM will carry out watershed management practices designed to meet soils, water, and air resource management objectives. These practices will be included in activity plans such as AMPs and HMPs. Surface disturbing activities will be prohibited on unstable areas unless it can be demonstrated that the instability can be alleviated. Specific unstable areas such as landslides, slumps, and areas exhibiting soil creep will be identified individually.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management of soil, water, and air resources is not expected to detrimentally impact bald eagle behavior or suitable nesting, communal winter roosting, or foraging areas. Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may maintain or improve the condition of some habitats and therefore may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Determination

Implementation of soil, water, and air resource management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for implementation of soil management actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Visual Resource Management

Management Action

The objective of visual resource management (VRM) is to minimize adverse effects to visual resources while maintaining the effectiveness of land-use allocations. The FO will be managed according to VRM classes as:

- Class I - 33,165 acres;
- Class II - 160,640 acres;
- Class III – 3,582,195 acres; and
- Class IV – 224,000 acres

Effects Analysis

Actions associated with visual resource management will not directly impact bald eagle behavior or habitats. The exclusion of some activities and structures from designated viewsheds may have a secondary positive effect of limiting disturbance of habitats that may be suitable for bald eagles or their prey.

Determination

Implementation of visual management actions, as presented in the Great Divide RMP (1990b), is **not likely to adversely affect** the bald eagle, due to **insignificant effects.** This determination is based on the potential that implementation of these actions will likely not affect the bald eagle, and may preserve or minimize disturbance to habitats suitable to bald eagles or their prey.

Wild Horse Management

Management Action

The objectives of wild horse management are to protect, maintain, and control a viable, healthy herd of wild horses while retaining their free-roaming nature and to provide adequate habitat through management consistent with environmental protection and enhancement policies. There are three wild horse herd management areas (WHHMAs) within the Rawlins Field Office (FO) jurisdiction. They are the Adobe Town WHHMA, the Lost Creek WHHMA, and the Stewart Creek WHHMA. Appropriate management levels (AMLs) for these areas are: Adobe Town 700; Lost Creek 70; and Stewart Creek 150. These WHHMAs and AMLs were determined in 1994 through analysis and interpretation of extensive monitoring. The adjusted WHHMA boundaries are the result of additional monitoring since 1994. Inventory, population monitoring, and wild horse management actions are the responsibility of the Rawlins FO staff. A portion of the Antelope Hills WHHMA is within the Rawlins FO jurisdiction. Habitat monitoring for this portion of the Antelope Hills WHHMA is the responsibility of the Lander FO staff. Herd management area plans (HMAPs) for each of the three Rawlins FO WHHMAs will be revised and updated to reflect current policies and circumstances.

The Adobe Town WHHMA includes land within the Rawlins and Rock Springs Field Office administrative boundaries. The northern boundary of the Adobe Town WHHMA corresponds to the southeastern boundary of the Salt Wells WHHMA in the Rock Springs Field Office Area. Included within the Adobe Town WHHMA is the Adobe Town Wilderness Study Area and all or portions of fourteen grazing allotments. The respective AMLs for the two WHHMAs are unaffected by this maintenance action.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with wild horse management are expected to be limited to occasional herding, corralling, and transporting of horses. The increase in human presence associated with these activities may temporarily alter the behavior of terrestrial foraging bald eagles. These actions are not expected to detrimentally impact the behavior of nesting or communal winter roosting bald eagles or nesting or roosting habitats.

Determination

Implementation of wild horse management, as presented in the Great Divide RMP (1990b), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that bald eagles will be adversely affected by actions associated with management of wild horses.

Wildlife Habitat and Fisheries Management

Management Action

The 29 standard habitat types in the Rawlins FO have been ranked by management priority into three categories. High priority habitat types, which usually support a large number of wildlife species, are not common in the FO. Sound management is required to ensure maintenance or improvement of the vegetative composition and structure of moderate priority habitat types, which usually are of lesser importance to wildlife but are in greater supply than high priority types. In low priority habitat types, there is less vegetative diversity. Because of their abundance and lower wildlife value, these types can be more heavily used by conflicting resources without significant wildlife impacts.

The general objectives for wildlife habitat and fisheries management are to:

- Provide habitat quality adequate to support a natural diversity of wildlife and fisheries, including big game, upland game, waterfowl, non-game species, game fish, sensitive, threatened, and endangered species, species of special management interest in Wyoming, as well as to assist in meeting goals of established recovery plans.
- Maintain or improve vegetation condition and avoid long-term disturbance in high-priority standard habitat sites.
- Maintain or improve overall ecological quality, thus providing good wildlife habitat, within the constraints of multiple-use management in moderate and low priority standard habitat types.

There will be 16 habitat management areas. Site-specific management actions will be implemented in Habitat Management Plan (HMP) areas and cooperative management areas to improve wildlife habitat. These site-specific management actions will be identified in existing,

revised, or proposed HMPs. These HMPs will also address transplants or augmentations of endemic wildlife species. Wildlife and wildlife habitat inventory and monitoring will be implemented in all HMP areas, cooperative management areas and other portions of the FO. These inventories and monitoring studies will conform to Bureau policy and standards found in Bureau Manuals, Wyoming State Office Supplements and Wyoming Instruction Memorandums. The estimated areas that will be involved in management actions in HMP areas are: 60 miles of streams (fisheries); 545 acres of reservoirs; 271,000 acres of raptor habitat; 243,000 acres of high priority habitat (including wetlands and riparian zone); and crucial winter range for big game species as follows: antelope, 375,000 acres; bighorn sheep, 23,000 acres; deer, 288,000 acres; elk, 153,000 acres.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife habitat management actions, as presented in the Great Divide RMP (1990b), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Summary of Determinations

The following is a summary of the effects determinations developed for each of Great Divide RMP management actions.

TABLE 10: SUMMARY OF DETERMINATIONS FOR THE GREAT DIVIDE RMP

Resource	Determination
Management of ACECs	Likely to adversely affect
Cultural Resources	Likely to adversely affect
Paleontological	Likely to adversely affect
Fire	Likely to adversely affect
Forest	Likely to adversely affect
Lands and Realty	Likely to adversely affect
Livestock Grazing	Likely to adversely affect
Minerals	Likely to adversely affect
Recreation	Likely to adversely affect
Sensitive Plants	No effect
Soil, Water, and Air	Likely to adversely affect
Visual Resources	Not likely to adversely affect, due to insignificant effects
Wild Horse	Not likely to adversely affect, due to discountable effects
Wildlife and Fisheries	Likely to adversely affect

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Rawlins FO. Potential effects that could affect bald eagles or their habitats in the Rawlins FO include the following:

- Recreation along rivers and river corridors (including camping, rafting, hunting, and golf course development)
- Ranching and livestock grazing on private lands
- Proposed additions to an existing wind farm in the Foot Creek Rim

Implementation of the Great Divide RMP would not change any potential effects on the bald eagle that may result from current non-federal actions.

ROCK SPRINGS FIELD OFFICE

The *Record of Decision and approved Resource Management Plan* (RMP) *for the Green River Resource Area* was signed in August 1997 (BLM 1997). The Green River RMP provides management direction for approximately 3.6 million acres of public land surface and 3.5 million acres of federal mineral estate. The Rock Springs FO occurs in the southwestern portion of Wyoming and includes portions of Sweetwater, Lincoln, Sublette, Fremont, and Uinta counties.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Rock Springs FO and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Ten bald eagle nests are currently known to occur in the Rock Springs FO. These nests occur in riparian habitats associated with the Green and Big Sandy Rivers. Two nests are on lands administered by BLM, two are on the Seedskadee National Wildlife Refuge, two are located on other federal surface lands, and four nests are located on privately owned lands (**Figure 14**) (Keith 2002; Redder 2002; Van Fleet 2002).

Communal Winter Roosting Habitat

Six bald eagle communal winter roosting areas are known to occur in the Rock Springs FO (**Figure 14**). Five of these roosts are located on lands administered by BLM and one is on land administered by the state of Wyoming. These roosts occur in riparian habitats associated with the Big Sandy River and the Henry's Fork.

Concentrated Foraging Habitat

No concentrated foraging habitats, such as ice-free water bodies, crucial big game ranges with high winter mortality (e.g., starvation, vehicle collisions) or cattle or sheep stockyards are known to occur in the Rock Springs FO (Keith 2002). However, general habitats associated with rivers, streams, lakes, reservoirs, and open, upland habitats are likely foraging areas for bald eagles when they support adequate prey populations.

Existing Conservation Measures

The following section presents measures included in the Rock Springs/Green River RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) "Timber harvesting activities will be restricted seasonally, as appropriate, to protect big game wintering and parturition activity, grouse, (sage, sharptail, etc.) strutting and nesting, and raptor nesting activity" (BLM 1997, p.8).

(b) "Timing limitations (seasonal restrictions) will be applied when activities occur during crucial periods or would adversely affect crucial or sensitive resources. Such resources include, but are not limited to, soils during wet and muddy periods, crucial wildlife seasonal use areas, and raptor nesting areas" (BLM 1997, p.12).

Figure 14: Rock Springs Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

(c) "The Coal Occurrence and Development Potential area is subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, cultural, and watershed resources, in general, and on threatened and endangered plant and animal species and their essential habitats. These studies include keeping resource databases current (e.g., where existing raptor nests become abandoned or where new raptor nests become established, etc.), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area" (BLM 1997, p.13).

(d) "Active and historic raptor nesting sites will be protected and managed for continued nesting activities" (BLM 1997, p.24).

(e) "Project components, such as permanent and high profile structures, i.e., buildings, storage tanks, powerlines, roads, well pads, etc. are prohibited within an appropriate distance of active raptor nests" (BLM 1997, p.24, 39).

(f) "Nesting raptors will be protected by restricting disruptive activities seasonally within ½ to 1-mile radius of occupied raptor nesting sites" (BLM 1997, p.24).

(g) "Raptor nest surveys will be conducted within a 1-mile radius, or linear distance of proposed surface uses or activities, if such activities are proposed to be conducted during raptor nesting seasons, usually between February 1 and July 31" (BLM 1997, p.24).

(h) "Habitat for raptors will be maintained or enhanced. Cliffs, tree hollows, and pinnacles will be managed to provide nesting habitat" (BLM 1997, p.25).

(i) "Crucial big game winter range seasonal restrictions and raptor nesting restrictions will be applied to activities that would be disruptive and excessively stressful to big game animals and raptors during these critical periods" (BLM 1997, p.32).

(j) "Raptors. The "no surface occupancy" stipulation of February 1 to July 31, within ½ or 1 mile of raptor nests can be shortened, depending on nesting chronology of individual species, nest site location, and topography" (BLM 1997, p.170).

Analysis of Proposed Management Actions and Effects

The RMP includes descriptions of each management prescription included in the FO. The following text briefly summarizes the activities and any specific mitigation measures associated with each management prescription. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* will be applied to all surface disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and no surface occupancy restrictions that will minimize potential effects to bald eagles and their habitats. Refer to the Green River RMP for a complete explanation of each management action.

Air Quality Management

Management Action

The objectives for air quality management are to:

- Maintain and, where possible, enhance present air quality levels;
- Protect public health and safety and sensitive natural resources; and
- Minimize emissions that may add to acid rain, violate air quality standards, or reduce visibility, within the scope of BLM's authority.

Special requirements (e.g., use authorization stipulations, mitigation measures, conditions of approval, etc.) to alleviate air quality impacts will be identified on a case-by-case basis and included in use authorizations (including mineral leases). Examples of such requirements would include: limiting emissions, spacing of source densities, requiring the collection of meteorological and/or air quality data, covering conveyors at mine sites (to lower dust emissions), and placing restrictions on flaring of natural gas (to reduce sulfur emissions).

Plant facilities could be authorized where they minimize air quality impacts over the FO, particularly the Flaming Gorge National Recreation Area. They may not be authorized where they might cause heavy fog conditions that are hazardous to public health by causing black ice on major highways, or possibly extreme and continual fog that could inhibit transportation or recreation activities.

Surface disturbing activities will be managed to prevent violation of air quality regulations. Construction and surface disturbing activities will be designed with dust control measures to reduce particulate matter and visibility impacts. Coordination with local and state agencies to control dust on unimproved dirt roads will occur where necessary.

The State of Wyoming has the authority and responsibility to regulate air quality impacts within the state, including Class I areas. The BLM will continue to cooperate and coordinate with the USDA-Forest Service, U.S. Environmental Protection Agency, and the State of Wyoming, in managing and monitoring air resources. For example, air quality data (e.g., atmospheric deposition, or acid rain, monitoring data) will be used to determine actual impacts from air pollutant emission sources, and emission levels will be inventoried and tracked to predict potential impacts, including effects on the Bridger Wilderness Area (which is a Prevention of Significant Deterioration Class I area) and to provide detailed information on proposed emission sources.

Cooperation to develop and apply visibility standards and guidelines is encouraged. BLM will cooperate with Wyoming Department of Environmental Quality (WDEQ) on review of air quality regulations that may impact BLM-managed activities.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions related to air quality management will not result in negative impacts to bald eagle behavior or habitats. Implementation of these management actions will likely result in maintaining or improving environmental conditions throughout the FO, which may have secondary benefits to the bald eagle and its prey.

Determination

Implementation of air quality management actions, as presented in the Green River RMP (1997), is **not likely to adversely affect** the bald eagle, due to **beneficial effects**. Air quality management efforts may result in positive effects to air quality and visibility that would be beneficial to bald eagles and their prey.

Cultural, Natural History, and Paleontological Resource Management

Management Action

The objectives of cultural, natural history, and paleontological resource management are to:

- Expand the opportunities for scientific study and educational and interpretive uses of cultural and paleontological resources;
- Protect and preserve important cultural and paleontological resources and/or their historic record; and
- Resolve conflicts between cultural or paleontological resources and other resource uses.

Sites eligible for or listed on the National Register of Historic Places (NRHP) will be managed for their local, regional, and national significance, under the guidelines of the National Historic Preservation Act (especially sections 106 and 110) and the Archeological Resources Protection Act (ARPA). These sites will be managed to ensure against adverse effects through proper mitigation, if disturbance or destruction is not avoidable. Management prescriptions for sites that are not eligible for the NRHP will be determined on a case-by-case basis according to values involved.

An appropriate level of analysis of all BLM undertakings or authorizations will be conducted to determine eligibility of sites for listing on the NRHP and to determine potential effects to those historic properties from proposed actions in accordance with the National Historic Preservation Act. Incidences of potential violation of the ARPA will be investigated.

The BLM will cooperate with the National Park Service in implementing the Oregon/Mormon Pioneer National Historic Trails Management Plan. The area within 1/4 mile or the visual horizon (whichever is less) of any contributing trail segment will be an avoidance area for surface disturbing activities. Developments such as roads, pipelines, and power lines may be allowed to cross trails in areas where previous disturbance has occurred and the trail segment has lost the characteristics that contribute to its National Register significance. Motorized vehicles, such as those used for geophysical exploration, or large heavy vehicles such as buses used in recreational tours, or similar activities, could cross and drive down the trails, provided a site specific analysis determines that no adverse effects will occur. Geophysical activities such as shotholes, blasting, and vibroseis locations could, generally, be allowed, provided they are at least 300 feet from the trail, do not occur directly on the trail, and a site specific analysis determines that visual intrusions and adverse effects will not occur. No blading will be allowed on any historic trail unless necessary to protect life or property. Historic trails are not available for use as industrial access roads (e.g., oil and gas drilling access roads, haul roads for heavy truck traffic).

The Parting-of-the-Ways historical site will be protected by closing it to exploration and development of locatable and saleable minerals and pursuing a withdrawal from mineral location. An existing 40-acre mineral location withdrawal in the area will be retained. The site will be managed under the prescriptions for management in the Oregon/Mormon Pioneer National Historic Trails Management Plan.

Management of historic roads and trails that are eligible for the NRHP but are not Congressionally designated will generally be the same as for designated trails including a 1/4 mile protective setback on either side of the trails. These trails may be recommended for listing to the National Register of Historic Places. These trails include the Overland Trail, the Cherokee Trail, and the Point of Rocks to South Pass Road. LaClede Stage Station and Dug Springs Stage Station on the Overland Trail will be protected as exclusion areas and will be closed to surface disturbing activities that could adversely affect the sites. These sites will be closed to exploration and development of locatable minerals and entry under the land laws, and withdrawals will be pursued. Cultural resource management plans may be written for these sites, and interpretive and visitor management efforts would be allowed as necessary.

Five significant rock art sites and their surrounding viewsheds (within 1/2 mile) will be managed to protect their cultural and historical values. Surface disturbing activities and visual intrusions will be prohibited within these areas if they would adversely affect these values. Management of visitor use at rock art sites may include interpretive signing, fencing, barriers, and other activities. The Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, and White Mountain rock art sites are exclusion areas, and are closed to surface disturbing activities that could adversely affect rock art resources. These sites are closed to:

1) The location of mining claims and entry under the land laws (withdrawals will be pursued as necessary and the existing Sugarloaf and White Mountain withdrawals will be retained;
2) Mineral material sales for sand, gravel, or other types of construction or building materials;
3) The use of explosives and blasting; and
4) The use of fire retardant chemicals containing dyes. Off-road vehicular use, including vehicles used for geophysical exploration activities, are limited to designated roads and trails.

The Tri-Territory Marker is an exclusion area and is closed to surface disturbing activities that could adversely affect it; and exploration and development of locatable minerals. A withdrawal will be pursued. The site will be open for consideration of activities such as fencing, interpretive signs, or barriers to ensure protection of the area. A cultural resource activity plan may be prepared for the site, if necessary.

Archeological data will be synthesized in the Little Colorado Desert, Greater Nitchie Gulch, and Wamsutter Arch concentrated oil and gas development areas and the areas will be managed with the objective of facilitating surface disturbing or disrupting activities without sacrificing significant archeological values. These areas may be eligible for listing on the NRHP because of their scientific information content (e.g., Criterion D). A programmatic memorandum of agreement would be negotiated with the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (ACHP) to achieve this objective. Historic resources that could be eligible for listing for reasons other than their scientific information content (e.g., Criteria A, B, or C) may not be managed according to this prescription.

Playa lake areas with high cultural site density would be managed as historic districts. Management prescriptions for surface disturbing activities in playa lake areas will be developed on a case-by-case basis. A programmatic memorandum of agreement for data recovery with the SHPO and ACHP would also be pursued. Each playa may be managed as an NRHP eligible historic district (Blue Forest, Blue Point, and Adobe Town Rim).

The Pine Springs ACEC (6,030 acres) is closed to surface disturbing activities. About 2,000 acres in the area will be closed to exploration and development of locatable minerals and entry under the land laws. Withdrawal from these activities will be pursued. The existing 90-acre withdrawal will be retained. Cultural resource management plans may be written for the site, and interpretive and visitor management efforts may be allowed as necessary.

Consultation with appropriate Native American tribes concerning areas of concern to them for traditional cultural purposes will be in accordance with the American Indian Religious Freedom Act and BLM Manual 8160-1 Handbook. Native American consultation would occur within the context of specific development proposals, but will also be an ongoing process between BLM and affected Indian tribes and traditional cultural leaders.

Interpretive materials will be prepared describing the cultural resources of the area, their significance, and BLM's responsibility to manage them. Historical aspects of BLM programs will be interpreted as appropriate for public appreciation. Exchanges for acquisition and cooperative agreements will be pursued to enhance management of cultural resources.

Management needs for other cultural sites will be determined on a case-by-case basis according to their resource values.

Significant paleontological resources will be managed for their scientific and educational values and in accordance with 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365.

Collecting of vertebrate fossils may be allowed with written authorization, which may be issued only to an academic, scientific, governmental, or other qualified institution or individual. Collection of common invertebrate fossils and petrified wood for hobby purposes is allowed on public lands and is regulated under 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365. A site protection plan may be written and implemented for the Farson Fossil Fish Beds.

Surface disturbing activities that affect known vertebrate fossil localities will be considered in site specific analyses and potential adverse effects will be mitigated. At the Area Manager's discretion, mitigating measures may be required for surface disturbing activities occurring in areas having a reasonable chance for the occurrence of scientifically significant fossils. Mitigation measures may include surface inventory, construction monitoring, excavation/salvage, or other measures considered to be reasonable and appropriate by the Area Manager. Operators are required to report any paleontological resources discovered during the course of operations.

The Steamboat Mountain and Boars Tusk-Killpecker Sand Dunes areas will be managed to protect the unique geological and ecological features and to provide for public interpretation of these features. The road around Boars Tusk is closed.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural, natural history, and paleontological resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected.

Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of cultural, natural history, and paleontological resource management actions, as presented in the Green River RMP (1997), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Fire Management

Management Action

The objectives of fire management in the Rock Springs FO are to use prescribed fire as a management tool to help meet multiple-use resource management goals; and provide cost-effective protection from wildfire to life, property, and resource values.

Wildfire suppression will emphasize appropriate management response. Immediate control actions will be used only in cases of arson, direct threat to public safety, or a strong potential to threaten structural property. Fire suppression actions will be based on achieving the most efficient control and allowing historical acres burned to increase. Activity plans will be developed for designated fire management areas defining specific parameters for all fire occurrence.

Ambient air quality standards will be maintained during prescribed fire operations. Heavy equipment or actions that will cause surface disturbance will be used only after a site-specific analysis has been performed and approved. Activities that cause surface disturbance will be considered on a case-by-case basis. Priority areas for wildfire suppression will be identified in fire management activity plans for the FO. A site-specific analysis will be prepared for sensitive areas such as special status plant species, cultural sites, historic trails, and ACECs to determine the appropriate suppression activity that will be acceptable. Use of chemical fire suppression agents is prohibited in rock art sites. Generally, use of chemical fire suppression agents is prohibited in special management areas, unless or until a wildland fire situation analysis is completed or an activity plan for the special management areas identifies chemical suppression agents as an allowable use. Wildfires occurring in forested areas will be appropriately suppressed in accord with resource values threatened, as determined on a case-by-case basis. Wildfires occurring in or directly threatening a developed or active timber sale will receive priority suppression control action. Non-commercial timber stands may be included in prescribed fire activities. Standard management practices such as pile and broadcast burning may be permitted in all forested areas.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated

with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Green River RMP (1997), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, communal winter roosting, and foraging habitats. In addition, there are no mitigation measures included in this action that would minimize potential for effects to bald eagles.

Forests and Woodlands Management

Management Action

The objectives of forests and woodlands management are to:

- Provide for healthy forest resources and primarily to meet multiple resources objectives (e.g., improved watershed, soils, recreation, and wildlife habitat values);
- Maintain and enhance biological diversity;
- Provide a long-range view of desired plant community concepts at the landscape level;
- Identify areas of old growth; and
- Provide for production of forest products in balance with these other resource management objectives in commercial forests.

The FO is divided into four timber compartments for timber management: Wind River Front, Pine Mountain, Little Mountain, and Hickey Mountain-Table Mountain. Hickey Mountain-Table Mountain will be managed as described in the woodland prescriptions. The Wind River Front is a restricted forest management area where forest resources will be managed for commercial forest values, to improve the health, vigor, and diversity of forest stands, and still give full consideration to other resource values such as watershed, wildlife, minerals, recreation, and scenic values. Pine and Little Mountain areas will be managed to enhance other resources, and activities will be designed to benefit these other resource uses. Priority for timber harvesting will be given to mature, decadent, and diseased trees.

Where possible, and within RMP objectives, timber compartments (commercial and woodland forest lands) will be managed to meet the local demand for minor forest products (e.g., fuelwood, posts and poles, wildlings, and Christmas trees). The major consideration for timber harvesting in the Wind River Front is to improve the condition of the forest stand with emphasis on meeting wildlife habitat needs. The major consideration for harvesting in other areas is to provide watershed stability and habitat for wildlife needs. Soil, watershed, and wildlife cover are important considerations. Timber stand conditions and management considerations will dictate harvest methods and size and shape of units.

Clearcutting is not allowed within 100 feet of drainages or standing and flowing waters. Other logging activity, such as thinning or cable logging, could occur within the 100-foot zone if other resource values will not be adversely affected. Timber harvesting activities will be restricted seasonally, as appropriate, to protect big game wintering and parturition activity, grouse (sage, sharptail, etc.) strutting and nesting, and raptor nesting activity. Approximately 1,436 acres of commercial timber within big game winter ranges are closed to logging activity, usually from

November 15 to April 30. If the logging unit encompasses big game parturition habitats, the area is closed to timber harvest activities usually from May 1 through June 30. There will be no logging activity within grouse nesting sites and raptor nesting sites usually from February 1 to July 31.

Timber harvest activities will be designed to protect water quality. A 500-foot buffer from standing or flowing water, floodplains, and/or riparian/wetland areas will be applied to surface disturbing activities (e.g., roads), unless impacts to soils, watershed, water quality, and fisheries can be mitigated. No surface disturbance is allowed within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages, without an approved plan to mitigate impacts to water quality. Linear crossings will be considered on a case-by-case basis.

Commercial conifer stands will be managed under the guidelines for suppression of wildfires. Aspen and juniper stands will be open to prescribed fire activities to enhance watershed and wildlife values. Habitat fragmentation will be prevented if it has a negative ecological effect. Special management areas (old growth, scientific research areas) will be identified and appropriate management incorporated into activity plans. Woodland Forests - Juniper, Aspen, and Limber Pine Woodland forest areas will be managed using silvicultural practices that promote stand viability. Treatments could include thinning, harvesting, chaining, and burning. The vegetative material resulting from these treatments will normally be sold through public demand sales. Woodland forest acreage will be maintained. Treatments may be implemented that influence successional stages, but such treatments will not permanently convert the areas to another vegetation type. Old aspen stands may be replaced by stands of sprouting aspen by various treatment methods (e.g., burning). Old decadent trees may be left standing or downed to provide cover or other habitat for wildlife, and juniper stands may be replaced where they are encroaching into other vegetation types. Silvicultural treatments in mature timber stands will be designed to improve wildlife habitat and watershed condition, i.e., create small openings to provide forage for wildlife and accumulate snow drifts to increase moisture. Cottonwood trees are not available for any harvesting. Firewood cutting for camping purposes will be limited to designated areas (this mainly applies to the area around developed recreation sites).

The major considerations for timber harvesting in the Wind River Front are to improve the condition of the forest stand with emphasis on meeting wildlife habitat needs. The major management consideration for the other timber compartments is to provide watershed stability and habitat for wildlife needs. Timber harvesting will be restricted seasonally, as appropriate, to protect big game wintering and parturition, sage and sharp-tailed grouse strutting and nesting, and raptor nesting. Cottonwood trees will not be available for any harvesting. Firewood cutting for camping will be limited to designated areas. No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Forest management actions will occur in upland coniferous forests. In the Rock Springs FO, bald eagles are typically associated with cottonwood forests of riparian habitats for nesting and communal winter roosting and open upland habitats for foraging. These bald eagle habitats are distinct from the coniferous habitats that are subject to forest management actions. Therefore, bald eagles are not expected to experience detrimental effects as the result of forest management actions.

Determination

Implementation of forest management actions, as presented in the Green River RMP (1997), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the extremely low likelihood that forest management activities may affect the bald eagle.

Hazardous Materials and Other Hazards Management

Management Action

The objectives for hazardous material and other hazardous management are to:

- Protect public and environmental health and safety on BLM-administered public lands;
- Comply with applicable federal and state laws;
- Prevent waste contamination caused by any BLM-authorized actions;
- Minimize federal exposure to liabilities associated with waste management on public lands; and
- Integrate hazardous materials and waste management policies and controls into all BLM programs.

For BLM-authorized activities that involve hazardous materials or their use, precautionary measures will be used to guard against releases or spills into the environment. If safety hazards are identified as a result of hazardous waste spills on BLM-administered public lands, the BLM will provide appropriate warnings. BLM-administered public land sites contaminated with hazardous wastes will be reported, secured, and cleaned up according to applicable federal and state regulations and contingency plans.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Emergency responses involving increased human presence and the use of machinery and heavy equipment may influence bald eagle behavior by causing eagles to avoid or abandon otherwise suitable habitats. Depending on the location and severity of hazardous material releases, bald eagle nesting, wintering roosting, and foraging habitats may be affected. Hazardous material release and response actions may also affect potential bald eagle prey by causing injury or mortality, displacing prey from suitable habitats, or disturbing prey habitats. These potential effects to prey and their habitats would likely be limited in scale relative to the abundance of prey and foraging habitat available throughout the Rock Springs FO.

Determination

Implementation of hazardous materials management actions, as presented in the Green River RMP (1997), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that releases of hazardous materials and subsequent response actions will harass or displace bald eagles and disturb or destroy suitable eagle habitats.

Lands and Realty Management

Management Action

The objectives of lands and realty management are to:

- Manage the public lands to support the goals and objectives of other resource values;
- Respond to public demand for land authorizations; and
- Acquire administrative and public access where necessary.

Lands and realty management actions are divided into five groups: land ownership adjustments, utility/transportation systems, withdrawals/classifications, desert land entries, and access. Public lands will be retained in federal ownership with the exception of those lands that have potential for disposal. The preferred method of disposal will be by land exchanges. Other lands will be considered for disposal on a case-by-case basis. Acquisition of lands will be considered to facilitate various resource management objectives. The preferred method for acquisition will be through exchange. Land exchanges are considered discretionary and voluntary real estate transactions between parties involved. Unauthorized uses within the FO will be resolved. If circumstances warrant, the issuance of a permit, lease, or right of way authorizing the use could occur as a means of resolving trespass. Disposal of the parcel through sale or exchange may be considered to resolve long-standing trespasses.

Public lands will be made available throughout the FO for rights of way, permits, and leases. The FO, with the exception of defined exclusion and avoidance areas, will be open to the consideration of granting rights of way. Right of way corridors will not be designated due to the predominant checkerboard private land pattern in the FO. Areas are designated for avoidance or exclusion to rights of way where these uses are incompatible with management of sensitive resources and/or would have unacceptable impacts. Areas designated as utility windows, rights of way concentration areas, and existing communication sites will be preferred locations for future grants.

Withdrawals that no longer serve the purpose for which they were established will be revoked. Prior to revocation, withdrawn lands will be reviewed to determine if any other resource values require withdrawal protection. The Multiple Use Management Classification as it affects public lands in the FO (200 acres) will be revoked. An additional 63 acres inundated by water under Flaming Gorge Reservoir may be withdrawn for the Bureau of Reclamation. Public Water Reserves will be terminated where no longer needed, and acquired where the need exists.

No BLM-administered public lands within the FO are available for agricultural entry under Desert Land Entry (43 CFR 2520) due to one or more of the following factors: unsuitable soils, salinity contributions into the Colorado River System, lack of water supplies, rugged topography, lack of access, small parcel size, and presence of sensitive resources.

Access to public lands will be provided throughout the FO. Where necessary and consistent with ORV designations, access will be closed, or restricted in specific areas to protect public health and safety, and to protect significant resource values (see ORV Management discussion). Easements will be pursued where practical, to provide access to public lands for recreational, wildlife, range, cultural/historical, mineral, special management area, and other resource management needs (about 300 acres).

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Activities associated with land resource management, as presented in the Green River RMP (1997), are **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Livestock Grazing Management

Management Action

The objectives of livestock grazing management are to:

- Improve forage production and ecological conditions for the benefit of livestock use, wildlife habitat, watershed, and riparian areas;
- Maintain, improve, or restore riparian habitat to enhance forage conditions, wildlife habitat, and stream quality; and
- Achieve proper functioning condition or better on riparian areas.

Authorized grazing use will not exceed the recognized permitted active AUMs (318,647 AUMs). Public lands will be made available for livestock grazing while considering the needs of other resources. The kinds and seasons of livestock grazing use will continue to be licensed until monitoring, negotiation, consultation, or a change in resource conditions indicate that a modification is needed. Monitoring will be continued or initiated following adjustments in grazing use to assure that grazing and other management objectives are being met. Allotments are placed in one of three selective management categories identified as improve (I), maintain (M), or custodial (C). Livestock grazing will be managed on 31 I category allotments, 18 M category, and 29 C category Allotments, and one allotment may not be categorized.

Interdisciplinary monitoring studies will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions and to determine if vegetation objectives will be met for all affected resource values and uses (livestock grazing, wild horses, wildlife, watershed, etc.).

The Palmer Draw area (970 acres) and special management exclosures are closed to livestock grazing. AUMs currently authorized in these areas will be suspended. All developed and some semi-developed recreation areas are closed to livestock grazing and will be fenced to reduce conflicts between uses. Authorized grazing preference may be reduced in areas with excessive soil erosion and poor range condition, if allotment evaluation warrants such a change, or to provide forage for wildlife, wild horse, and recreational uses. Management will be implemented in "I" category allotments to maintain or improve wild horse, wildlife, watershed, vegetation, and soils resource conditions. Management in "M" category allotments will be directed toward maintenance of resource conditions. Management in "C" allotments will be directed toward monitoring resource conditions. All AMPs will incorporate desired plant community objectives and riparian objectives where such resources exist. Grazing systems will be designed to maintain or improve plant diversity and will be implemented on all I category allotments.

Site-specific analyses will be conducted where necessary to help determine how to alleviate conflicts between wildlife use, livestock grazing, and development activities. Unallotted forage on public lands will be appropriately allocated to wildlife, wild horses, livestock grazing, and for watershed improvement on a case-by-case basis. Salt or mineral supplements for livestock are prohibited within 500 feet of water, wetlands, or riparian areas unless analysis shows that watershed, riparian, and wildlife objectives and values would not be adversely affected. Salt or mineral supplements are prohibited on areas inhabited by special status plant species or other sensitive areas. Range improvements will be directed at resolving or reducing resource concerns, improvement of wetland/riparian areas, and overall improvement of vegetation/ground cover.

Water sources may be developed in crucial wildlife winter ranges only when consistent with wildlife habitat needs. Such sources will be designed to benefit livestock, wild horses, and wildlife. Alternative water supplies or facilities for livestock may be provided to relieve livestock grazing pressure along stream bottoms and improve livestock distribution. Construction of fences may be considered to meet management objectives. Fence construction in big game use areas and known migration routes will require site-specific analysis. Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur. Requests for conversions of kinds of livestock and changes in seasons of grazing use will be considered on a case-by-case basis through an environmental analysis. Noxious weed infestations will be controlled through livestock management or by environmentally acceptable mechanical, chemical, or biological means.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may affect foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Green River RMP (1997), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Minerals Management

Management Action

The objective of minerals management is to maintain or enhance opportunities for mineral exploration and development while protecting other resource values. Public lands within the checkerboard areas of landownership are open to mineral leasing and development with mitigation measures to be applied on a case-by-case basis.

Public lands within the checkerboard area are open to mineral leasing and development (to promote mineral resource recovery) with appropriate mitigation measures to be applied on a case-by-case basis. BLM-administered public lands not specifically closed are open to consideration for oil and gas leasing. Public lands closed to leasing include lands within the Red Creek ACEC and portions of the Wind River Front. The remainder of public lands in the FO are open to consideration for oil and gas leasing with appropriate mitigation measures. Where maximum protection of resources is necessary, a No Surface Occupancy requirement will be imposed. Timing limitations (seasonal restrictions) will be applied when activities occur during crucial periods or would adversely affect crucial or sensitive resources. Such resources include, but are not limited to, soils during wet and muddy periods, crucial wildlife seasonal use areas, and raptor nesting areas. Where controlled use or restrictions on specific activities are needed but do not necessarily exclude activities, controlled surface use or surface disturbance restrictions will be designed to protect those resources. These restrictions will be placed on areas where resources could be avoided or adverse effects could be mitigated. To the extent that laws and regulations allow, the areas closed to oil and gas leasing will remain closed to leasing of oil and gas unless drainage results in a loss of federal minerals through production on adjacent private or state lands (drainage).

Geothermal resources are open to leasing consideration in areas that are open to oil and gas leasing consideration. Areas closed to oil and gas leasing are also closed to geothermal leasing. Exploration and development of geothermal resources are subject to application of mitigation requirements for surface disturbing activities and other activities in the same manner as they are applied to oil and gas exploration and development activities.

With appropriate limitations and mitigation requirements for the protection of other resource values, all BLM-administered public lands and Federal coal lands in the Rock Springs FO, except for those lands identified as closed, are open to coal resource inventory and exploration to help identify coal resources and their development potential.

The Coal Occurrence and Development Potential area is subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, cultural, and watershed resources, in general, and on threatened and endangered plant and animal species and their essential habitats. Such investigations, studies and evaluations may be conducted on an as-needed or case-by-case basis in reviewing individual coal leasing or development proposals (e.g., mine plans) or, if opportunities

or needs arise, area-wide studies may be conducted. These studies include keeping resource databases current (e.g., where existing raptor nests become abandoned or where new raptor nests become established, etc.), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area. Consultation with other agencies (e.g., USFWS, WGFD), interested parties, and industry, will occur as needed or required.

Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development, and adequate crucial winter range and birthing area habitats to prevent significant adverse impacts to important big game species. This will be accomplished through controlled timing and sequencing of federal coal leasing and development in these areas.

The greater Cooper Ridge and Elk Butte areas are open to further consideration for federal coal leasing and development, pending further study (about 25,368 acres). This study is for the purpose of defining the extent of any deer and antelope crucial winter range in the area, and for determining if certain methods of coal mining can occur in the area without having a significant long-term impact on the deer and antelope herds.

For the protection of important rock art sites, other important cultural resource values, and important geologic and ecologic features, Federal coal lands with these important values are open to consideration for further leasing and development by subsurface mining methods only.

In general, cultural sites on federal coal lands are avoidance areas for surface disturbing activities. As avoidance areas, cultural sites are open to consideration for coal leasing and development with appropriate measures to protect these resources. Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction and location of ancillary facilities, roads and other types of rights of way, etc., will be avoided, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities (primarily excavation and other data recovery measures) will be emphasized.

Active grouse leks (sage and sharptail grouse) and the area within a 1/4 mile radius of active leks are avoidance areas for surface disturbing activities and are open to consideration for federal coal leasing and development with the following requirements:

- Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of roads and other types of rights of way, etc., will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be emphasized.

- Permanent and high profile structures, such as buildings, overhead powerlines, other types of ancillary facilities, etc., are prohibited in these areas.

- During the grouse mating season, surface uses and activities are prohibited between the hours of 6:00 p.m. and 9:00 a.m., within a 1/2 mile radius of active leks (i.e., those leks occupied by mating birds).

Wetland and riparian areas on federal coal lands are avoidance areas for surface disturbing activities and are open to consideration for coal leasing and development with the following requirements: surface disturbing activities associated with such actions as surface coal mining

methods, exploration drilling, construction of ancillary facilities, roads and other types of rights of way, etc., will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be required.

Most of the FO is open to consideration of mineral material sales and activity except for areas where such activity would cause unacceptable impacts. As sale areas, community pits, and localized common use areas become established to provide for sales of mineral materials, such as moss rock and sand, their use and management will be in conformance with other resource objectives.

With the exception of lands withdrawn from mineral location, the FO is open to filing of mining claims and exploration for and development of locatable minerals.

The mineral classification withdrawals in the FO (phosphate, coal, oil shale) will be revoked. In some areas, these classification withdrawals will remain in effect until replaced with an appropriate withdrawal for other, appropriate purposes (see Special Management Area section). Other withdrawals from mineral location will be pursued to provide protection to important resource values.

Most of the FO is open to consideration of geophysical activities except where off-road vehicle use or explosive charges would cause unacceptable impacts. Geophysical activities will generally be required to conform to the ORV designations and ORV management prescriptions for the FO. However, geophysical exploration has been and will continue to be routinely granted site-specific authorization for off-road vehicle use subject to appropriate limitations to protect various resources identified during analysis of proposed actions.

Geophysical activities will be restricted or prohibited within 1/4 mile or visual horizon of historic trails (whichever is closer) to protect trail integrity. Vehicles used for geophysical exploration or similar activities could be allowed to cross and drive down historic trails, provided a site specific analysis determines that no adverse effects would occur. Generally, shotholes and vibroseis activity will be restricted or disallowed within 300 feet of historic and recreational trails; however, exceptions may be allowed if supported by a site-specific analysis. Geophysical travel through developed and semi-developed recreation sites is restricted to existing roads and trails. Geophysical exploration on sections of the Sweetwater River, identified as having potential for wild classification under the Wild and Scenic Rivers Act requirements, is limited to foot access and placement of surface cables. No motorized vehicle use is allowed in these areas. Surface charges may be allowed if a site specific analysis determines no adverse impacts would occur to river values.

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources,

including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of minerals management actions, as presented in the Green River RMP (1997), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Off-Road Vehicle Management

Management Action

The objective of off-road vehicle (ORV) management is to provide opportunity for ORV use in conformance with other resource management objectives.

Areas for ORV rallies, cross-country races, and outings may be provided on a permit basis. Approximately 170,000 acres are closed to off-road vehicle use to protect naturalness and outstanding opportunities for solitude, or primitive and unconfined recreation. In areas designated as either "limited" to designated roads and trails or "limited" to existing roads and trails for off-road vehicle use, motorized vehicles must stay on designated or existing roads and trails, unless allowed an exception by the authorized officer. This limitation applies to all activities involving motorized vehicles. Vehicular travel in crucial and important wildlife habitats and during crucial and important periods will be restricted seasonally, as necessary (strutting grounds, spawning beds, big game ranges, calving/fawning periods, etc.).

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Much of the Rock Springs FO is not subject to open ORV use. ORV use in the FO is best characterized as limited in frequency and intensity. ORV management and use in the Rock Springs FO is not expected to result in detrimental effects to bald eagle behavior or nesting, communal winter roosting, or foraging habitats.

Determination

Implementation of ORV management actions, as presented in the Green River RMP (1997), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that effects from ORV use will result in take.

Recreation Resource Management

Management Action

The objectives of recreation resource management are to:

- Ensure the continued availability of outdoor recreational opportunities sought by the public while protecting other resources;
- Meet legal requirements for the health and safety of visitors; and
- Mitigate conflicts between recreation and other resource uses.

Most public lands in the FO are open to consideration of all individual, commercial, and competitive outdoor recreation uses. Developed recreation sites will be managed to assure public health and safety. Undeveloped recreation sites and other recreation use areas will be managed with priority consideration for air quality, cultural resources, watershed protection, wildlife values, and public health and safety. A 14-day camping limit is established on all BLM-administered public lands. Camping is limited to 14 days within a 28-day consecutive period. After the 14th day of occupation, campers must move outside a 5-mile radius of the previous location. Dispersed camping is prohibited near water sources in designated areas where it is necessary to protect water quality and wildlife and livestock watering areas. Camping in other riparian areas is allowed within 200 feet of water. Areas will be closed to camping if resource damage occurs. Special recreation permits will be considered on a case-by-case basis.

The Continental Divide National Scenic Trail, Continental Divide Snowmobile Trail, the Green River, and the Wind River Front are designated special recreation management areas (SRMAs) to place management emphasis on enhancing recreation opportunities and to focus management on areas with high recreation values or areas where there are conflicts between recreation and other uses. The remainder of the FO will be managed as an extensive recreation management area (ERMA).

The Wind River Front is a designated SRMA. The Wind River Front SRMA is all of the BLM-administered public lands that lie north of Township 27, east of Highway 191, northwest of Highway 28, and south of the Bridger-Teton and Shoshone National Forests. To facilitate management, the area is divided into two units. The boundary between the two units is the Continental Divide, and the eastern unit includes the Prospect Mountains.

The management objective emphasis for the Eastern Unit of the SRMA is for scenic, watershed, and wildlife values; recreation use; riparian and vegetation resources; and to provide protection to the Class I airshed in the Bridger Wilderness. Major facilities (including linear facilities) are generally prohibited in this unit. Some facilities could be allowed if analysis indicates that the management objectives for the unit could be met. The Eastern Unit of the SRMA is closed to mineral leasing. Surface disturbing activities must conform to unit management objectives. The 500 acres associated with the *Arabis pusilla* portion of the Special Status Plants ACEC, is closed to ORV use. In the remainder of the unit, ORV use is limited to designated roads and trails. Seven BLM-administered public land parcels along the Sweetwater River (involving about 9.7 miles of the river) will be managed under the Wild and Scenic Rivers Act interim management guidelines. The purpose of this interim management is to maintain or enhance the outstandingly remarkable resource values on the public lands along the river and to maintain their suitability for consideration by Congress for inclusion into the National Wild and Scenic River Preservation System. The suitable public land parcels along the river are closed to mineral location and withdrawal from the public land laws, including the mining laws, will be pursued.

The management objective emphasis for the Western Unit of the SRMA is for dispersed recreation uses such as camping, hunting, and fishing, with full consideration given to wildlife, cultural, vegetation, watershed values, and mineral development activity. This unit of the SRMA is open to mineral leasing. All activities in the unit will conform with the requirements of Class III and Class IV visual resource management classifications and all management actions will be designed and located to remain subordinate to the characteristic landscape or to repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape. Off-road vehicle

use in the unit is limited to designated roads and trails. Transportation planning will be completed prior to allowing development in the unit. Linear facilities will be required to conform with the transportation plan and follow existing routes and previously disturbed areas. Surface disturbing activities are prohibited in the Dry Sandy Swales and the area within 1 mile of Dry Sandy Swales.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with recreational management and use have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation resource management actions, as presented in the Green River RMP (1997), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to cause bald eagle harassment, displacement and to disturb or destroy suitable nesting and communal winter roosting habitats.

Special Status Species Management

Management Action

The objectives of special status species management are to:

- Maintain or enhance essential and important habitat and prevent destruction or loss of species' communities and important habitat;
- Provide opportunities for enhancing or expanding the habitat; and
- Prevent the need for listing these species as threatened or endangered.

Special Status species are those plant and animal species which are proposed for listing, officially listed (threatened and endangered), or candidates for listing as threatened or endangered by the Secretary of the Interior under the provisions of the Endangered Species Act; those listed or proposed for listing by a state in a category implying potential endangerment or extinction; and those designated by each BLM State Director as sensitive. The management actions for special status species apply only to BLM-administered public lands. Emphasizing management of these species on public lands and preventing these species from being listed as threatened or endangered would benefit all parties within the Rock Springs FO. When species are listed as threatened and endangered, by law they become more universally protected on private, and state-owned lands, in addition to federal lands.

Any management actions on potential habitat of special status plant species communities on federal land or on split estate lands (i.e., non-federal land surface ownership with BLM-administered federal minerals ownership) will require searches for the plant species prior to project or activity implementation to determine the locations of special status plant species and essential and/or important habitats. Special status plant populations are closed to activities that could adversely affect these species and their habitat. Management requirements in habitat areas may include prohibiting or limiting motorized vehicle use, surface uses, and explosive charges or any other surface disturbing or disruptive activity that may cause adverse effects to the plants.

Known locations of special status plant species communities will be protected and closed to:

1) Surface disturbing activities or any disruptive activity that could adversely affect the plants or their habitat;
2) The location of new mining claims (withdrawal from mineral location and entry under the land laws will be pursued);
3) Mineral material sales;
4) All off-road vehicular use, including those vehicles used for geophysical exploration activities, surveying, etc.; and
5) The use of explosives and blasting.

Locations of special status plant species are open to consideration for mineral leasing with a no surface occupancy requirement. Should new special status plant species be identified, they will be managed under the same prescriptions described above for the known species. Management prescriptions for threatened and endangered species and proposed threatened and endangered species will be developed on a case-by-case basis in consultation with the U.S. Fish and Wildlife Service. Known locations of special status species will be evaluated on a case-by-case basis to determine if they meet the relevance and importance criteria to be considered for ACEC designation.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with special status species will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effects to bald eagles by limiting harassment and disturbance to nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the special status species management actions, as presented in the Green River RMP (1997), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and minimize adverse effects to nesting, communal winter roosting, and foraging habitats.

Vegetation Management

Management Action

The objectives of vegetation management are to maintain or enhance vegetation community health, composition, and diversity in order to meet watershed, wild horse, wildlife, and livestock grazing resource management objectives; and provide for plant diversity.

Riparian habitat will be maintained, improved, or restored to provide wildlife and fish habitat, improve water quality, and enhance forage conditions. Where possible, acquisition of additional riparian area acreage will be pursued to enhance riparian area management. The minimum management goal for riparian areas is to achieve proper functioning condition. This is considered the first priority for vegetation management. Desired plant communities must meet the criteria for proper functioning condition.

Desired plant community objectives for upland and riparian areas will be established for the FO through individual site-specific activity and implementation planning and as updated ecological site inventory data become available. All activity and implementation plans will incorporate desired plant community objectives.

Prescribed fire will generally be the preferred method of vegetation manipulation to convert stands of brush to grasslands and to promote regeneration of aspen stands and/or shrub species.

Vegetation manipulation projects will be conducted to reach multiple use objectives and will involve site-specific environmental analysis and coordination. All vegetation manipulation projects will involve site-specific environmental analysis; coordination with affected livestock operators and the WGFD; and will include multiple use objectives for resource uses including livestock grazing, wildlife, recreation, and watershed. Vegetation treatments will be designed to be compatible with special status plant species. For example, spraying, burning, mechanical disturbances, etc. will not be allowed to adversely affect these plant species.

Riparian habitat in proper functioning condition is the minimum acceptable status or level within the Rock Springs FO. Under this RMP, 75 percent of the riparian areas should, within 10 years, have activity and implementation plans in various states of implementation that will allow riparian areas to achieve or maintain proper functioning condition. Site-specific activity and implementation plans will be used to identify methods to achieve or maintain proper functioning condition in riparian areas.

The next step beyond basic proper functioning condition of riparian areas is the achievement of desired plant communities. Desired plant community objectives will be developed on riparian areas based on any of several different methods, including Ecological Site Inventory, comparison areas (comparison areas would have similar soils, aspect, vegetation, and precipitation), and estimating the structural component that can be achieved in the short term. Desired plant community objectives can be short and long term. Desired plant community objectives take into consideration all uses of the riparian area which can include livestock grazing, wildlife, recreation, fisheries, flood control, etc.

While the desired plant community establishes objectives for the riparian area or upland plant community, the Desired Future Condition establishes goals for entire watersheds (or larger blocks of land) involving all activities and resources. Achieving proper functioning condition and a desired plant community are integral steps in the process of establishing and achieving the Desired Future Condition of an area.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with vegetation management including increased human presence and use of machinery or fire to implement management actions may detrimentally influence bald eagle behavior. The potential for these effects is low and the intensity is not expected to have lasting detrimental effects to bald eagle behavior. Terrestrial foraging habitats are most likely to experience vegetation management actions. These habitats are diverse and widespread throughout the FO and therefore, isolated disturbances resulting from vegetation management practices are not expected to limit the availability or quality of foraging habitats. Implementation of vegetation

management actions are likely to result in positive effects to bald eagle habitats, particularly foraging habitats, such as the creation or expansion of habitats suitable to potential terrestrial prey species.

Determination

Implementation of the vegetation management actions, as presented in the Green River RMP (1997), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects. Results of vegetation management may benefit the bald eagle by creating or supplementing habitats that support bald eagle prey species.

Visual Resource Management

Management Action

The objectives of visual resource management are to maintain or improve scenic values and visual quality; and establish priorities for managing the visual resources in conjunction with other resource values.

Visual resource classes will be retained or modified to enhance other resource objectives such as those for cultural resource and recreation management, wild horse viewing, and special management areas. Projects and facilities will be designed to meet the objectives of the established visual classifications and appropriate mitigation will be included. Facilities (either in place or new), including linear rights of way, etc., must be screened, painted, or designed to blend with the surrounding landscape.

Management actions on public lands with a Class II visual resource management classification must be designed to blend into and retain the existing character of the natural landscape. Management actions on public lands with a Class III visual resource management classification must be designed to partially retain the existing character of the landscape. Management actions on public lands with a Class IV visual resource management classification could result in major modification of the character of the landscape. All surface disturbing actions, regardless of the visual resource management class, are required to be mitigated to reduce visual impacts.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with visual resource management will not directly impact bald eagle behavior or habitats. The exclusion of some activities and structures from designated viewsheds may have a secondary positive effect of limiting disturbance of habitats that may be suitable for bald eagles or their prey.

Determination

Implementation of visual management actions, as presented in the Green River RMP (1997), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that implementation of these actions may preserve or minimize disturbance to habitats that may be suitable to bald eagles or their prey.

Watershed/Soils Management

Management Action

The objectives of watershed and soils management are to:

- Stabilize and conserve soils;
- Increase vegetation production;
- Maintain or improve surface and groundwater quality; and
- Protect, maintain, or improve wetlands, floodplains, and riparian areas.

Land uses and surface-disturbing activities will be designed to reduce erosion and to maintain or improve water quality. Management in damaged wetland and riparian areas will be directed toward restoration to pre-disturbance conditions. Practices to carry out these actions may include ensuring that construction of stream crossings occurs during normal stream flows, not during high or peak flows when additional sediment from construction could be swept in the stream; and ensuring water discharges meet appropriate standards.

Management in the FO will emphasize:

- Reduction of sediment, phosphate, and salinity load in drainages where possible;
- Maintaining and improving drainage channel stability; and
- Restoring damaged wetland areas.

Surface disturbing and construction activities (e.g., mineral exploration and development activities, pipelines, powerlines, roads, recreation sites, fences, wells, etc.) that could adversely affect water quality, and wetland and riparian habitat, will avoid the area within 500 feet of or on 100-year floodplains, wetlands, or perennial streams and within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages. Proposals for linear crossings in these areas will be considered on a case-by-case basis.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management of watershed/soil resources is not expected to detrimentally impact bald eagle behavior or suitable nesting, communal winter roosting, or foraging areas. Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may maintain or improve the condition of some habitats and therefore may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Determination

Implementation of watershed/soil management actions, as presented in the Green River RMP (1997), is **likely to adversely affect** the bald eagle. This determination is based on the potential that actions may harass or displace bald eagles and disturb or destroy suitable bald eagle habitats.

Wild Horse Management

Management Action

The objectives of wild horse management are to:

- Protect, maintain, and control viable, healthy herds of wild horses while retaining their free-roaming nature;
- Provide adequate habitat for free-roaming wild horses through management consistent with principles of multiple use and environmental protection; and
- Provide opportunities for the public to view wild horses.

Wild horses will be managed within five Wild Horse Herd Management Areas. These are the White Mountain, Divide Basin, Adobe Town, Salt Wells, and Little Colorado Wild Horse Herd Management Areas. An appropriate management level of 1,105 to 1,600 wild horses will be maintained among the five herd management areas.

The site specific activity plans for the five wild horse herd management areas in the FO will be maintained to conform with RMP objectives for vegetation management and implemented. Specific habitat objectives for herd management areas will be developed. Water developments will be provided if necessary, to improve herd distribution and manage forage utilization. Water developments on crucial winter ranges could be allowed if they conform with wildlife objectives and do not result in adverse impacts to the crucial winter range. Wild horse herd management will be directed to ensure that adequate forage (about 17,400 AUMs) will be available to support appropriate management levels in the herd units and that herds maintain appropriate age, sex, and color ratios. Selective gathering programs will be implemented in each of the wild horse herd management areas. Gathering plans will be prepared for removal of excess horses from inside and outside the wild horse herd management areas. Other resource uses will be maintained and protected consistent with those resource management objectives while maintaining viable, healthy wild horse herds and appropriate herd management levels. Wild horse herd management areas will be managed in a natural, healthy state and for an ecological balance among wild horses and land and resource uses.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with wild horse management are expected to be limited to occasional herding, corralling, and transporting of horses. The increase in human presence associated with these activities may temporarily alter the behavior of terrestrial foraging bald eagles. These actions are not expected to detrimentally impact the behavior of nesting or communal winter roosting bald eagles or nesting or roosting habitats.

Determination

Implementation of wild horse management, as presented in the Green River RMP (1997), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that bald eagles will be adversely affected by actions associated with management of wild horses.

Wilderness Management

Management Action

The objective of wilderness management is to retain the wilderness quality and manage the Wilderness Study Areas (WSAs) in the FO in accordance with the *Interim Management Policy and Guidelines for Lands Under Wilderness Review*, until Congress acts on designation.

Discretionary uses within or adjacent to WSAs will be reviewed to ensure they do not create conflicts with management and preservation of wilderness values. Should Congress designate the WSAs in the FO (partially or wholly) as wilderness, the management of the designated areas will be for wilderness values, either as described in the appropriate wilderness EIS or as directed by Congress. Should Congress not designate areas (partially or wholly) as wilderness, the management of the nondesignated areas will be in accordance with the approved Green River RMP or as otherwise directed by Congress.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with wilderness management will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effects to bald eagles by limiting harassment and disturbance to suitable nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the wilderness management actions, as presented in the Green River RMP (1997), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and maintain or protect suitable bald eagle habitats.

Wildlife Management

Management Action

The objectives for wildlife management are to maintain, improve, or enhance the biological diversity of plant and wildlife species while ensuring healthy ecosystems; and restore disturbed or altered habitat with the objective to attain desired native plant communities, while providing for wildlife needs and soil stability. The objectives for management of wetlands/riparian areas are to achieve a healthy and productive condition for long-term benefits and values in concert with range, watershed, and wildlife needs; and enhance or maintain riparian habitats by managing for deep-rooted native herbaceous or woody vegetation. The objective for management of threatened, endangered, special status, and sensitive plant and animal species is to provide, maintain, or improve habitat through vegetative manipulation, mitigation measures, or other management actions including habitat acquisition and easements.

To the extent possible, suitable wildlife habitat and forage will be provided to support the Wyoming Game and Fish Department (WGFD) 1989 Strategic Plan objectives. Changes within WGFD planning objective levels will be considered based on habitat capability and availability and site specific analysis. High value wildlife habitats will be maintained or improved by reducing habitat loss or alteration and by applying appropriate distance and seasonal restrictions and rehabilitation standards to all appropriate activities.

Active and historic raptor nesting sites will be protected and managed for continued nesting activities. An active raptor nest is one that has been occupied within the past 3 years; an historic nesting site is an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors, such as Cedar Canyon, Four-J Basin, Kinney Rim, etc. The appropriate level of protection will be determined on a case-by-case basis depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Project components, such as permanent and high profile structures, i.e., buildings, storage tanks, powerlines, roads, well pads, etc. are prohibited within an appropriate distance of active raptor nests. The appropriate distance (usually less than 1/2 mile) will be determined on a case-by-case basis and may vary depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Placement of facilities "on" (very low profile) or below ground, and temporary disruptive activities, such as those that occur with pipeline construction, seismic activity, etc., could be granted exceptions within 1/2 mile of active raptor nests, in certain circumstances. Raptor nest surveys will be conducted within a 1-mile radius, or linear distance of proposed surface uses or activities, if such activities are proposed during raptor nesting seasons, usually between February 1 and July 31.

Needed special management and riparian management exclosures will be developed and/or maintained, and exclosure plans will be implemented for enhancement of wildlife habitat. Exclosures are closed to livestock grazing use and no AUMs in these areas will be available for livestock use. Aquatic, wetland, and riparian habitat are not suitable for disposal unless opportunities exist for land exchange for lands of equal or better value.

Habitat management plans will be developed, where needed, particularly for highly developed and disturbed areas to mitigate wildlife habitat losses. Plans could include habitat expansion efforts, T&E species reintroduction, and population goals and objectives. Such actions as preparing transportation plans and reclaiming roads, seeding, and vegetation enhancement (vegetation treatments, fencing), water developments, and reclamation actions to reduce the amount of disturbance, will be considered. Areas identified for consideration of such plans include, but are not limited to, the Little Colorado Desert (including the Fontenelle II and Blue Forest units), Nitchie Gulch, Wamsutter Arch, Patrick Draw, and Cedar Canyon areas.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife habitat management actions, as presented in the Green River RMP (1997), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Special Designation Management Areas

Management Action

Several Areas of Critical Environmental Concern (ACEC) are identified in the Rock Springs FO. These ACECs are each managed to achieve specific goals and objectives unique to the resource values identified within each ACEC. A detailed description of specific management goals and objectives for each ACEC is available in the Green River RMP (BLM 1997). No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with ACECs will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effects to bald eagles by limiting harassment and disturbance to potentially suitable nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the special designation management actions, as presented in the Green River RMP (1997), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and maintain or protect suitable bald eagle habitats.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Green River RMP management actions.

TABLE 11: SUMMARY OF DETERMINATIONS FOR THE GREEN RIVER RMP

Resource	Determination
Air Quality	Not likely to adversely affect, due to beneficial effects
Cultural, Natural History, and Paleontological Resources	Likely to adversely affect
Fire	Likely to adversely affect
Forest and Woodlands	Not likely to adversely affect, due to discountable effects
Hazardous Materials	Not likely to adversely affect, due to discountable effects
Lands and Realty	Likely to adversely affect
Livestock Grazing	Likely to adversely affect
Minerals	Likely to adversely affect
Off-Road Vehicles	Not likely to adversely affect, due to discountable effects
Recreation	Likely to adversely affect
Special Status Species	Not likely to adversely affect, due to beneficial effects
Vegetation	Likely to adversely affect
Visual Resources	Not likely to adversely affect, due to beneficial effects
Watershed/Soils	Likely to adversely affect
Wild Horses	Not likely to adversely affect, due to discountable effects
Wilderness	Not likely to adversely affect, due to beneficial effects
Wildlife	Likely to adversely affect
Special Designation Management Areas	Not likely to adversely affect, due to beneficial effects

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Rock Springs FO and that might affect the bald eagle and its habitat. Existing and proposed activities on non-federal lands that could affect bald eagles or their habitats include:

- Coal mine operations
- Coalbed methane
- Transmission lines
- Seismic exploration
- Trona (soda ash) mining
- A proposed power plant
- Proposed wind farms
- Livestock grazing on private lands
- Municipal dump expansions
- Housing developments

Most of these activities are situated away from important bald eagle habitats. However, certain components of these projects, if completed, could directly or indirectly affect bald eagles or bald eagle habitats. Implementation of the Green River RMP would not change any potential effects to the bald eagle that may result from current non-federal actions.

WORLAND FIELD OFFICE: GRASS CREEK RMP

The *Record of Decision and Approved Resource Management Plant* (RMP) *for the Grass Creek Resource Area* of the Worland BLM Office was signed in September 1998 (BLM 1998). The resource management plan (RMP) provides the management direction for approximately 968,000 acres of public land surface and 1,171,000 acres of federal mineral estate. The Worland Field Office occurs in the north-central portion of Wyoming, occupying portions of Big Horn, Hot Springs, Park, and Washakie counties.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Grass Creek planning area and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Two bald eagle nests are known to occur within the Grass Creek planning area (**Figure 15**) (Redder 2002; Stephens 2002; Van Fleet 2002). These nests are located on privately owned lands. No nests are known to occur on lands administered by BLM. These nests occur in riparian habitats associated with the Bighorn River.

Communal Winter Roosting Habitat

Two communal winter roosting areas are known to occur in the Grass Creek planning area (**Figure 15**) (Redder 2002; Stephens 2002). Both occur on privately owned lands. These roosts occur in riparian habitats associated with the Bighorn River.

Concentrated Foraging Habitat

Several habitats are described as concentrated feeding areas, including a sheep stockyard near Worland, areas of the Bighorn River that are ice-free during winter, and big game road kill found near roadways. Open upland habitats where prey species are abundant are also expected to offer suitable general foraging habitats.

Existing Conservation Measures

The following section presents measures included in the Grass Creek RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) "The BLM will participate with the FWS in the evaluation and designation of critical habitat for threatened or endangered species on BLM-administered lands. If proposed surface-disturbing or disruptive activities could affect these species, the BLM will consult with the FWS as required by the Endangered Species Act"(BLM 1998, p. 22).

(b) "Nest sites, roosts, cottonwood trees, and other potential critical habitats related to hunting and concentration areas for bald eagles will be protected, especially along the Bighorn and Greybull rivers. As one measure to protect these habitats, firewood harvesting is prohibited on public lands in these areas" (BLM 1998, p. 22).

(c) "To protect important raptor nesting habitat, activities or surface use will not be allowed from February 1 to July 31 within certain areas encompassed by the authorization. The same criteria apply to defined raptor winter concentration areas from November 15 through April 30" (BLM 1998, Appendix 3, p. 60).

(d) "No activities or surface use will be allowed on that portion of the authorization area identified within (legal description) for the purpose of protecting (e.g., sage/sharp-tailed grouse breeding grounds, and/or other species/activities) habitat" (BLM 1998, Appendix 3, p. 60).

(e) "Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (name) which is a threatened or endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that (name) occurrence is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications)" (BLM 1998, Appendix 3, p. 60).

(f) "The following conditions would be evaluated during the review process. The degree to which any of these conditions apply to a proposed ownership adjustment may or may not make the lands suitable for sale, exchange, transfer, or acquisition - Tracts identified as potential recovery habitat for federally listed endangered, threatened, candidate, or emphasis species" (BLM 1998, Appendix 4, p. 75).

Analysis of Proposed Management Actions and Effects

The RMP includes descriptions of each management prescription applied within the FO. The following text briefly summarizes the activities and any specific mitigation measures associated with each management prescription. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* will be applied to all surface-disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and "no surface occupancy" restrictions that will minimize potential effects to bald eagles and their habitats. Refer to the Grass Creek RMP for a complete explanation of each prescription.

Air Quality Management

Management Action

The objectives of air quality management are to maintain or enhance air quality, protect public health and safety, and minimize emissions resulting in acid rain or degraded visibility. All BLM-initiated or authorized actions, such as the use of prescribed fire, will avoid violation of Wyoming and national air quality standards. Requirements will be applied to authorized actions on a case-by-case basis to alleviate air quality problems.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions related to air quality management will not result in negative impacts to bald eagle behavior or habitats. Implementation of these management actions will likely result in maintaining or improving environmental conditions throughout the FO, which may have secondary benefits to the bald eagle and its prey.

Figure 15: Worland Field Office – bald eagle nest and roost locations

Data withheld from this document. For further information, please contact the Wyoming State Office of the BLM in Cheyenne.

Determination

Implementation of air quality management actions, as presented in the Grass Creek RMP (1998), are **not likely to adversely affect** the bald eagle, due to **beneficial effects**. Air quality management efforts may result in positive effects to air quality and visibility that would be beneficial to bald eagles and their prey.

Cultural, Paleontological, and Natural History Resources Management

Management Action

The objectives for cultural, paleontological, and natural history management are to protect and preserve important cultural, paleontological, and natural history resources and expand opportunities for scientific and educational uses. Site-specific inventories for cultural resources will be required before the start of surface-disturbing activities. Adverse effects on significant resources will be mitigated, or the resources themselves will be avoided by surface-disturbing activities. Sites listed on the National Register of Historic Places will be appropriately protected. Any violations of the Archaeological Resources Protection Act will be investigated. The BLM's consultation with the Advisory Council for Historic Preservation and the State Historic Preservation Office will be consistent with a cultural resources programmatic agreement signed in 1995. To protect Native American cultural values, the construction of rights of way will be avoided on public lands in the Meeteetse Draw area. Important paleontological resources will be managed for scientific and public use.

Potential effects on paleontological resources will be considered in site-specific environmental analyses before the authorization of surface-disturbing activities. As appropriate, site-specific inventories will be required where significant fossil resources are known or anticipated to occur. Closing lands or restricting uses to protect paleontological resources will be evaluated case by case. Surface-disturbing and disruptive activities associated with the construction and use of interpretive sites and facilities will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural, natural history, and paleontological resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface-disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface-disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of cultural, natural history, and paleontological resource management actions, as presented in the Grass Creek RMP (1998), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Fire Management

Management Action

The objectives of fire management are to cost-effectively protect life, property, and resource values from undesired wildland fire, and use prescribed and wildland fire to achieve multiple-use management goals. The Worland District Fire Management Plan will be maintained and revised, as necessary, and implemented. The plan will address fire management on a watershed or landscape scale, in order to meet desired plant community and other resource management objectives identified in this RMP and in future activity plans. The use of minimal impact suppression techniques will restrict fire vehicles to existing roads and trails on public lands near the Legend Rock Petroglyph Site and within 0.25 mile of the high-water mark at Wardel Reservoir, to protect riparian habitat and a great blue heron rookery. Other travel restrictions will be considered in future activity planning. The construction of fire lines will be avoided if natural fire breaks can be used.

The use of bulldozers generally is prohibited in riparian and wetland areas, in areas of significant cultural resources or historic trails, and in important wildlife birthing areas. Fire retardant drops by air tankers are prohibited within 200 feet of water. The use of heavy equipment to construct fire lines and the use of chemical and dye retardants will be restricted or prohibited near rock art. Prescribed and wildland fire will be used to accomplish resource management objectives. When prescribed fires are planned, and when wildland fires are managed, the potential for habitat fragmentation will be evaluated. Actions that would disrupt or divide habitat blocks, other than temporarily, will be avoided. When fire and mechanical or biological treatments can be used effectively to manage vegetation, they will be preferred over chemical treatments. Surface-disturbing and disruptive activities associated with all types of fire management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Grass Creek RMP (1998), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, communal winter roosting, and foraging habitats. In addition, there are no mitigation measures included in this action that would minimize the potential for effects to bald eagles.

Forestland Management

Management Action

The objective of forestland management is to maintain and enhance the health, productivity, and biological diversity of forest and woodland ecosystems. Road construction for harvesting timber or for conducting forest management practices is prohibited on slopes greater than 25 percent, unless site-specific environmental analyses demonstrate that adverse effects can be mitigated or avoided. Skidder-type yarding is prohibited on slopes greater than 45 percent. Other logging operations on slopes steeper than 45 percent are limited to technically, environmentally, and economically acceptable methods such as cable yarding. Emphasis for silvicultural practices and timber harvesting will be placed on areas where forest health is the primary concern (including forests that are infested by mistletoe or mountain pine beetles). A variety of forest silvicultural and cutting methods will be used such as clearcutting, shelterwood, individual tree selection, and various regeneration treatments.

In important seasonal wildlife habitat areas, clearcuts generally will not exceed 300 yards (approximately 15 acres) in any direction. Wildlife escape cover will be maintained by keeping a corridor of trees around, or on one or more sides of, roads, clearcuts, parks, wetlands, and wallows. Trees and snags will not be cut if they provide important habitat for cavity or snag-nesting wildlife. When harvests are planned, the potential for habitat fragmentation will be evaluated. Actions that would disrupt or divide habitat blocks, other than temporarily, will be avoided. Slash disposal will be tailored to promote reforestation, minimize erosion, and allow ease of movement for wildlife. Forest products will be sold from limber pine and juniper woodland areas to meet public demand for posts, poles, firewood, and specialty wood consistent with wildlife habitat requirements. Harvesting firewood on public lands along desert waterways and the Bighorn and Greybull rivers is prohibited. Prescribed and wildland fire will be used to improve aspen stands, regenerate old age forest stands, manage for desired successional stages and forest species composition, and rehabilitate harvest areas. Surface-disturbing and disruptive activities associated with all types of forest management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Forest management actions will occur in upland coniferous forests. In the Grass Creek planning area, bald eagles are typically associated with cottonwood forests of riparian habitats for nesting and communal winter roosting and open upland habitats for foraging. These bald eagle habitats are distinct from the coniferous habitats that are subject to forest management actions. Therefore, bald eagles are not expected to experience detrimental effects as the result of forest management actions.

Determination

Implementation of forest management actions, as presented in the Grass Creek RMP (1998), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the extremely low likelihood that forest management activities may affect the bald eagle.

Hazardous Materials and Wastes Management

Management Action

The objective of hazardous materials and wastes management is to protect public health and safety and the environment on public lands, emphasize waste reduction and pollution prevention for BLM-authorized and initiated actions, comply with applicable federal and state laws, prevent waste contamination from any BLM-authorized actions, minimize federal exposure to the liabilities associated with waste management on public lands, and integrate hazardous materials and waste management policies and controls into all BLM programs. For BLM-authorized activities that involve hazardous materials or their use, precautions will be taken to guard against releases into the environment. In the event of a release of hazardous materials on the public land, appropriate warnings will be provided to potentially affected communities and individuals, and precautions will be taken against public exposure to contaminated areas. Sale, exchange, or other transfer of public lands on which storage or disposal of hazardous substances has been known to occur will require public notification of the type and quantity of the substances. Public lands contaminated with hazardous wastes will be reported, secured, and cleaned up according to federal and state laws, regulations, and contingency plans, including the federal Comprehensive Environmental Response, Compensation, and Liability Act. Parties responsible for contamination will be liable for cleanup and resource damage costs, as prescribed by law. Surface-disturbing and disruptive activities associated with all types of hazardous materials and waste management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Emergency responses involving increased human presence and the use of machinery and heavy equipment may influence bald eagle behavior by causing eagles to avoid or abandon otherwise suitable habitats. Depending upon the location and severity of hazardous material releases, bald eagle nesting, wintering roosting, and foraging habitats may be affected. Hazardous material release and response actions may also affect potential bald eagle prey by causing injury or mortality, displacing prey from suitable habitats, or disturbing prey habitats. These potential effects to prey and their habitats would likely be limited in scale relative to the abundance of prey and foraging habitat available throughout the Grass Creek planning area.

Determination

Implementation of hazardous materials management actions, as presented in the Grass Creek RMP (1998), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that releases of hazardous materials and subsequent response actions will harass or displace bald eagles and disturb or destroy suitable bald eagle habitats.

Lands and Realty Management

Management Action

The objectives of lands and realty management are to support the multi-use management goals of the various BLM resource programs; respond to public request for land-use authorizations, sales, and exchanges; and acquire access to serve administrative and public needs.

The BLM will pursue public access on important roads and trails identified in the BLM transportation plan. The transportation plan will be updated as necessary and implemented to provide access to large blocks of public land or to smaller parcels of land having high public values. The BLM will maintain or improve existing opportunities for public access in the upper Grass Creek area. Emphasis will be placed on acquisition of access to public lands on the Bighorn and Greybull rivers to enhance recreational opportunities and wildlife management. The BLM will pursue a combination of motorized and nonmotorized vehicle access in the Enos Creek, the upper Cottonwood Creek, and the upper South Fork of Owl Creek areas of the Absaroka Mountain foothills. Goals are to provide vehicle access to the South Fork of Owl Creek to improve fishing and other recreational opportunities and to acquire foot and horseback access to the Shoshone National Forest. All access will be limited seasonally and to specific routes as appropriate. The BLM will pursue limited motorized vehicle access on roads in the Red Canyon Creek area consistent with an overall objective to emphasize primitive recreation.
Access to specific areas may be closed or restricted to protect public health and safety. Before access is upgraded in the vicinity of important cultural, paleontological, natural history, wildlife habitat, or other sensitive resources, the security and protection of these resources will be carefully considered.

Before any public lands are exchanged or sold, or before the BLM would attempt to acquire any other lands in the planning area, the BLM will consult with county commissioners and other representatives of local government in the affected areas. Other affected and interested citizens will also be given opportunities to comment. About 1,220 acres will be considered for suburban expansion, community landfills, industrial and commercial development, and other public needs near the communities of Worland, Thermopolis, Meeteetse, and Basin. Agricultural trespass on public land generally will be resolved by prohibiting the unauthorized use; however, land sales, exchanges, or leases could resolve agricultural trespass in some cases. Leases might be used to develop the lands as wildlife food and cover areas. Proposals for sale, exchange, or transfer of public land will be subject to appropriate criteria. Priority will be given to landownership adjustments that meet community needs. The preferred method of adjusting landownership is exchange. Approximately 33,700 acres of public lands that are difficult or uneconomic to manage will have priority consideration for public sale, Recreation and Public Purposes Act lease or patent, exchange, or transfer of jurisdiction to another agency. Proposals for the sale, exchange, or transfer of other public lands in the planning area will be considered on a case-by-case basis. Exchanges will be pursued to improve management of important seasonal wildlife habitat areas in the upper portions of Owl, Cottonwood, Gooseberry, and Grass creeks. Exchanges will be pursued along Gooseberry Creek, the upper portions of Cottonwood and Grass creeks, the Bighorn and Greybull rivers, and on lands where other riparian areas occur. The purposes for these exchanges will be to consolidate public land, enhance public access, and improve public land manageability. A cooperative management agreement will be pursued with private landowners to enhance and conserve the Legend Rock Petroglyph Site. Cooperative agreements or land exchanges to improve wild horse management will be pursued on about 12,000 acres of privately-owned land.

All coal and phosphate withdrawals and classifications on approximately 180,780 acres will be terminated and the lands will be returned to operation of the 1872 Mining Law. A locatable mineral withdrawal will be pursued on about 1,200 acres of public land to protect recreation and wildlife values on public river tracts along the Bighorn River. Locatable mineral withdrawals will be pursued within 0.5 mile of the Legend Rock Petroglyph Site and in the immediate vicinity of rock art in the Meeteetse Draw area near Thermopolis. A locatable mineral withdrawal will be pursued in the Upper Owl Creek ACEC on about 16,300 acres of public land to protect scenic values, wildlife habitat, soil, and water.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Implementation of activities associated with lands and realty management, as presented in the Grass Creek RMP (1998), is **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Livestock Grazing Management

Management Action

The objectives of livestock grazing management are to improve forage production and range condition to provide a sustainable resource base for livestock grazing while improving wildlife habitat, watershed protection, and forage for wild horses.

The level of livestock grazing on public lands, when combined with all other public land uses, will not be allowed to exceed the carrying capacity of the land. The amounts, kinds, and seasons of livestock grazing use will continue to be authorized until monitoring indicates a grazing use adjustment is necessary, or an environmental assessment indicates that a permittee's application to change grazing use is appropriate. Adjustments in the levels of livestock grazing, if needed, will be made as a result of monitoring and consultation or negotiation with grazing permittees and other affected interests (including local and state governmental entities, as appropriate). Adjustments may also result from land-use planning decisions to change the allocation of land uses or from transfers of public land to other agencies or into nonfederal ownership. The level of livestock grazing may be reduced in areas with excessive soil erosion or poor vegetative condition, if identified by monitoring, or as necessary to provide for other multiple uses. Livestock grazing monitoring intensity will vary, with higher levels occurring in "I" category allotments than in "M" and "C" category allotments. Livestock operators and other affected interests (including local and state governmental entities, as appropriate) will be asked to assist the BLM in developing objectives, in selecting key areas to monitor, and in gathering data.

Important riparian habitat areas on public lands will be fenced to control the duration and timing of livestock use, if the condition of these areas is declining and other types of grazing management do not produce a favorable response. Access to water for use by livestock and wildlife will be provided. Surface-disturbing and disruptive activities associated with all types of range project construction and maintenance will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may affect foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Grass Creek RMP (1998), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Minerals Management

Management Action

The objective of minerals management is to maintain or enhance opportunities for mineral exploration and development, while maintaining other resource values. Surface-disturbing and disruptive activities associated with all types of minerals exploration and development and with geophysical exploration will be subject to appropriate mitigation developed through use of the mitigation guidelines.

The coal screening process (as identified in 43 CFR 3420.1-4) has not been conducted in the planning area. Interest in the exploration for, or the leasing of, federal coal will be handled case by case.

The entire planning area (about 1,171,000 acres of BLM-administered mineral estate) is open to oil and gas leasing consideration. About 20,200 acres of BLM-administered mineral estate are open to leasing consideration with a "no surface occupancy" stipulation.

Geothermal resources will be available for leasing consideration in areas that are open to oil and gas leasing consideration. Areas closed to oil and gas leasing will also be closed to geothermal leasing. Surface-disturbing and disruptive activities associated with all types of geothermal exploration and development will be subject to appropriate mitigation developed through use of the mitigation guidelines.

All coal and phosphate withdrawals and classifications will be terminated and the lands involved will be returned to operation of the 1872 Mining Law. Except for specific areas identified as closed, the planning area is open to the staking of mining claims and operation of the mining laws for locatable minerals. Plans of operations or notices are required for locatable minerals exploration and development consistent with regulations (43 CFR 3809). All locatable minerals actions will be reviewed to assure compliance with the BLM bonding policy for surface-disturbing activities. A locatable mineral withdrawal will be pursued on about 1,200 acres of public land to protect recreation and wildlife values on tracts of public land along the Bighorn River. A locatable mineral withdrawal will be pursued on public lands within 0.5 mile of the Legend Rock Petroglyph Site and on public lands in the immediate vicinity of the rock art in the Meeteetse Draw area near Thermopolis. A locatable mineral withdrawal will be pursued in the Upper Owl Creek ACEC on about 16,300 acres of public land to protect scenic values, wildlife habitat, soil, and water.

Except for specific areas identified as closed, the planning area is open to consideration for sale of mineral materials (for example, sand and gravel) and related exploration and development activities. No topsoil will be sold. The Legend Rock Petroglyph Site and public lands within 0.5 mile are closed to the sale of sand and gravel and other mineral materials. Public lands in the Meeteetse Draw Rock Art Area are closed to the sale of sand and gravel and other mineral materials. The sale of sand and gravel will be avoided on public lands adjoining the Greybull and Bighorn rivers.

All parts of the planning area that are open to consideration for oil and gas leasing, exploration, and development are open to consideration for geophysical exploration subject to appropriate mitigation. On lands where surface-disturbing activities are prohibited or on lands closed to off-road vehicle (ORV) use, casual use geophysical exploration will be allowed.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and winter-roosting bald eagles.

Determination

Implementation of minerals management actions, as presented in the Grass Creek RMP (1998), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Off-Road Vehicle Management

Management Action

The objective for off-road ORV management is to maintain or enhance opportunities for ORV use while avoiding adverse effects of vehicle travel on other resource values. Unless otherwise specified, ORV use on BLM-administered public land is limited to existing roads and trails. Motorized vehicle use is prohibited on wet soils and on slopes greater than 25 percent, when and where unnecessary damage to vegetation, soils, or water quality would result. Over-the-snow vehicles are subject to the same requirements and limitations as all other ORVs until activity planning specifically addresses their use. An open area for ORV "play" will be established west of Worland on about 900 acres. On areas designated as closed or limited to designated roads and trails, the off-road use of a motorized vehicle on public lands will be prohibited unless the use is otherwise authorized by a permit or license. Signs will be posted and maps or brochures will be published to explain this requirement.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Much of the Grass Creek planning area is not subject to open ORV use. ORV use in the FO is best characterized as limited in frequency and intensity. ORV management and use in the Grass Creek planning area is not expected to result in detrimental effects to bald eagle behavior or nesting, communal winter roosting, or foraging habitats.

Determination

Implementation of ORV management actions, as presented in the Grass Creek RMP (1998), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that effects from ORV use will result in take.

Recreation Management

Management Action

The objective of recreation management is to enhance opportunities for primitive recreation in some areas while increasing visitor services in other areas to meet needs for more developed forms of recreation. Special Recreation Management areas are designated on BLM-administered public lands in the Absaroka Mountain foothills, Badlands, and Bighorn River areas. All other public lands will be managed as an Extensive Recreation Management Area. Recreational uses of public lands along the Bighorn River for fishing, hunting, and float boating are managed under the Bighorn River Habitat and Recreation Area Management Plan. Emphasis will be placed on acquisition of access to public lands on the Bighorn and Greybull rivers to enhance recreational opportunities and wildlife management. Surface-disturbing and disruptive activities associated with the construction, maintenance, and use of roads, campgrounds, interpretive sites, and other recreational facilities will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with recreational management and use have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause bald eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and winter-roosting bald eagles.

Determination

Implementation of recreation management actions, as presented in the Grass Creek RMP (1998), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to cause bald eagle harassment, displacement and to disturb or destroy suitable nesting and communal winter roosting habitats.

Vegetation Management

Management Action

The objectives of vegetation management are to reduce the spread of noxious weeds, and maintain or improve the diversity of plant communities to support timber production, forage needs of livestock and wild horses, wildlife habitat, watershed protection, and acceptable visual resources. Surface-disturbing and disruptive activities associated with vegetation management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

Noxious weeds and other undesirable vegetation will be controlled in conjunction with local counties; the USDA Animal and Plant Health Inspection Service (APHIS); and other agencies and affected interests. Control of noxious weeds may include manual, mechanical, biological, or chemical methods. If herbicides are proposed for use, those that are effective on the target weed species and that have minimum toxicity to wildlife and fish will be selected. As appropriate, buffer zones will be provided along streams, rivers, lakes, and riparian areas, including riparian areas along ephemeral and intermittent streams. Treatments will avoid raptor and upland game bird nesting seasons and other times when loss of cover or disturbance by equipment could be detrimental. Projects that may affect threatened or endangered plants or animals will be postponed or modified to protect the presence of these species. In such cases, the BLM will consult with the U.S. Fish and Wildlife Service (USFWS) as required by the Endangered Species Act. Certified noxious weed-seed free vegetative products will be used on all BLM-administered public lands in the Grass Creek planning area.

The following objectives for desired plant communities (DPC) will be applied on an individual basis in consultation with land-use proponents and other affected or interested citizens. Actions required to achieve these objectives will normally be implemented through allotment management and other site-specific activity plans, and through reclamation plans for activities like pipeline construction, oil and gas exploration, and bentonite mining.

Desired plant communities are described according to the percentages of trees, shrubs, grasses, and forbs within each community. Descriptions are by weight estimate unless canopy cover percent is specified. Barren, alpine, and high gradient/rocky riparian communities are not discussed.

On at least 600,000 acres of public lands in the planning area (not containing important wildlife habitat) the following DPC objectives will emphasize watershed protection, forestland health, and livestock grazing.

- Salt Desert Shrub Communities: shrubs 30 to 60 percent, grasses 30 to 60 percent, forbs 5 to 15 percent, with shrubs increasing on high saline sites.
- Salt Bottom Communities: shrubs 20 to 40 percent, grasses 50 to 70 percent, forbs 5 to 15 percent.
- Basin Grassland/Shrub Communities: shrubs 10 to 20 percent, grasses 60 to 80 percent, forbs 10 to 20 percent.
- Foothills-Mountain Grassland/Shrub Communities: shrubs 10 to 30 percent, grasses 60 to 80 percent, forbs 10 to 20 percent.
- Low Gradient/Alluvial Riparian Communities, Canopy Composition: shrubs 0 to 15 percent, grasses and grasslikes 70 to 90 percent, forbs 5 to 15 percent.
- Intermediate Riparian Communities, Canopy Composition: trees and shrubs 10 to 30 percent, grasses and grasslikes 50 to 70 percent, forbs 10 to 30 percent.
- Desert Cottonwood Riparian Communities, Canopy Composition: trees and shrubs 10 to 30 percent, grasses and grasslikes 50 to 70 percent, forbs 10 to 30 percent.
- Woodland Communities: Same as Foothills-Mountain Grassland/Shrub Communities on areas where establishment of limber pine and juniper has occurred on deeper soils. There is no specific objective where woodlands occur on very shallow soils.
- Mixed Conifer/Deciduous Forest Communities: Promote overall species and structural diversity. Promote aspen growth in some areas, consistent with site-specific objectives for resource management, including commercial forest production. Manage 80 percent of forestlands for hiding and thermal cover (50 percent of these stands will have thermal cover characteristics). Ten percent of the forestlands will be managed for old growth.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with vegetation management, including increased human presence and use of machinery or fire to implement management actions, may detrimentally influence bald eagle behavior. The potential for these effects is low and the intensity is not expected to have lasting detrimental effects to bald eagle behavior. Terrestrial foraging habitats are most likely to require vegetation management actions. These habitats are diverse and widespread throughout the FO and therefore isolated disturbances resulting from vegetation management practices are not

expected to limit the availability or quality of foraging habitats. Implementation of vegetation management actions are likely to result in positive effects to bald eagle habitats, particularly foraging habitats, such as the creation or expansion of habitats suitable to potential terrestrial prey species.

Determination

Implementation of the vegetation management actions, as presented in the Grass Creek RMP (1998), are **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects. Results of vegetation management may benefit the bald eagle by creating or supplementing habitats that support bald eagle prey species.

Visual Resource Management

Management Action

The objective of visual resource management is to maintain or improve scenic values throughout the FO. Visual resources will be managed in accordance with objectives for VRM classes that have been assigned to the FO. Facilities or structures proposed in or near Wilderness Study Areas will be designed so as not to impair wilderness suitability. No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with visual resource management will not directly impact bald eagle behavior or habitats. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be suitable for bald eagles or their prey.

Determination

Implementation of visual resource management actions, as presented in the Grass Creek RMP (1998), are **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that implementation of these actions may preserve or minimize disturbance to habitats that may be suitable to bald eagles or their prey.

Watershed/Soils Management

Management Action

The objectives of watershed management are to maintain or improve water quality to support State of Wyoming designated uses, comply with state water quality standards; reduce water loss by increasing ground cover, and maintain standing vegetation after grazing. The protection of watershed resources will be considered in the analysis of all proposed actions affecting BLM-administered lands. Water wells and watershed projects that are no longer functioning or serving their original purposes will be reclaimed and abandoned as appropriate. The BLM may acquire mineral exploratory wells and drill holes that produce water. These acquired wells will be developed for multiple-use purposes if they meet criteria for water well conversion. The BLM will allow the surface discharge of produced water, if it meets State of Wyoming water quality standards. Surface-disturbing and disruptive activities associated with watershed management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management of watershed/soil resources is not expected to detrimentally impact bald eagle behavior or suitable nesting, communal winter roosting, or foraging areas. Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts are dependent on several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may maintain or improve the condition of some habitats and therefore may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Determination

Implementation of watershed/soil management actions, as presented in the Grass Creek RMP (1998), is **likely to adversely affect** the bald eagle. This determination is based on the potential that actions may harass or displace bald eagles and disturb or destroy suitable bald eagle habitats.

Wild Horse Management

Management Action

The objective of wild horse management is to maintain free-roaming wild horses in an ecological balance within the Fifteen Mile Wild Horse Herd Management Area (WHHMA). The herd area will be managed for an initial herd size of at least 70 and no greater than 160 mature animals. To the extent possible, horses will be managed at the lower end of this range during periods of drought. Long-term wild horse numbers will be established through monitoring, multiple-use allocations, and revision of the herd area activity plan. The Fifteen Mile Wild Horse Herd Gathering Plan will be kept up-to-date and implemented for roundups. Emphasis will be placed on gathering horses that wander outside the herd area or onto privately owned lands. Cooperative agreements or land exchanges to improve wild horse management will be pursued on about 12,000 acres of privately owned land. Livestock grazing in the herd area is limited to domestic sheep use during November through March, unless an environmental analysis indicates that another kind or time of use is appropriate. The watershed protection, forestland management, and livestock grazing DPC objective will be used in the herd management area. In the herd management area, grazing strategies will be designed to allow a combined forage utilization of 30 percent of the current year's growth in other plant communities that are grazed during the growing season. In the herd management area, combined forage utilization up to 40 percent of the current year's growth will be allowed in all plant communities that are grazed when plants are dormant. Wild horses will be allocated 2,300 AUMs of forage annually. The maximum allowable forage use by domestic livestock in the herd area will be 3,370 AUMs per year. Development of additional water sources in the herd area will be considered to improve horse distribution and manage forage utilization. Surface-disturbing and disruptive activities associated with wild horse management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with wild horse management are expected to be limited to occasional herding, corralling, and transporting of horses. The increase in human presence associated with these activities may temporarily alter the behavior of terrestrial foraging bald eagles. These actions are not expected to detrimentally impact the behavior of nesting or communal winter roosting bald eagles or nesting or roosting habitats.

Determination

Implementation of wild horse management, as presented in the Grass Creek RMP (1998), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that bald eagles will be adversely affected by actions associated with management of wild horses.

Wildlife and Fish Habitat Management

Management Action

The objective of wildlife and fish habitat management is to maintain or enhance riparian and upland habitat, promote species diversity, and allow the expansion of wildlife and fish, where appropriate. Surface-disturbing and disruptive activities associated with wildlife and fish management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

To the extent possible, suitable habitat and forage will be provided to support wildlife populations, as defined by the WGFD strategic plan objectives. Requests by WGFD to change the objectives will be considered, based on habitat capability and availability. The BLM will participate with the USFWS in the evaluation and designation of critical habitat for threatened or endangered species on BLM-administered lands. If proposed surface-disturbing or disruptive activities could affect these species, the BLM will consult with the USFWS as required by the Endangered Species Act. The BLM will continue to work with the USFS, USFWS, WGFD, and the Wind River Indian Reservation in developing a healthy bighorn sheep herd in the Absaroka and Owl Creek mountains. Nest sites, roosts, cottonwood trees, and other potential critical habitats related to hunting and concentration areas for bald eagles will be protected, especially along the Bighorn and Greybull rivers. As one measure to protect these habitats, firewood harvesting is prohibited on public lands in these areas.

The BLM will cooperate with the WGFD and local irrigators in negotiations directed at establishing minimum pool elevations for reservoirs with fisheries potential. Reservoirs and riparian areas will be maintained to improve or enhance potential fisheries. The BLM will encourage the design of reservoirs to enhance fisheries where potential exists. Consistent with the overall management objective to maintain or enhance fisheries habitat, existing game and nongame fish habitat will be protected and the BLM will consider the introduction of fish where habitat potential exists. Approximately 28 miles of stream habitat will be managed for game fish; 60 additional miles will be managed for nongame fish.

Effects Analysis

Management actions associated with wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy

machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of wildlife and fish habitat management actions, as presented in the Grass Creek RMP (1998), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Area of Critical Environmental Concern Management

Management Action

The objective of managing the Upper Owl Creek Area as an ACEC is to protect overlapping and important big game habitats and migration corridors, fisheries habitat, shallow soils, alpine vegetation and rare plants, diverse cultural resources and Native American traditional values, primitive recreational opportunities, and high scenic quality. Management will include limiting or prohibiting surface-disturbing activities and closing the area to, and pursuing withdrawal from, the staking and development of mining claims to protect fragile soils, alpine tundra, important wildlife habitat, and scenic values. A detailed activity plan will be prepared for the Upper Owl Creek ACEC before the BLM approves any proposal for major surface-disturbing activity in the area. This activity plan will include assistance from the development proponent and other affected and interested citizens to determine whether some surface occupancy could be allowed in the area. Mitigation measures considered in the analysis will include access corridors and cluster development. For any mining claims with prior existing rights, a plan of operations will be required for all mining claim-related activities, other than casual use, in the Upper Owl Creek ACEC.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with ACECs will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effect to bald eagles by preventing harassment and disturbance to potentially suitable nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the ACEC management actions, as presented in the Grass Creek RMP (1998), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and maintain or protect suitable bald eagle habitats.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Grass Creek RMP management actions.

TABLE 12: SUMMARY OF DETERMINATIONS FOR THE GRASS CREEK RMP	
Resource	**Determination**
Air Quality	Not likely to adversely affect, due to beneficial effects
Cultural, Paleontological, and Natural History Resources	Likely to adversely affect
Fire	Likely to adversely affect
Forestland	Not likely to adversely affect, due to discountable effects
Hazardous Materials and Wastes	Not likely to adversely affect, due to discountable effects
Lands and Realty	Likely to adversely affect
Livestock Grazing	Likely to adversely affect
Minerals	Likely to adversely affect
Off-road Vehicles	Not likely to adversely affect, due to discountable effects
Recreation	Likely to adversely affect
Vegetation	Likely to adversely affect
Visual Resources	Not likely to adversely affect, due to beneficial effects
Watershed/Soils	Likely to adversely affect
Wild Horse	Not likely to adversely affect, due to discountable effects
Wildlife and Fish Habitat	Likely to adversely affect
ACECs	Not likely to adversely affect, due to beneficial effects

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Grass Creek planning area. Existing and proposed activities on non-federal lands in the Worland planning area that could affect bald eagles or their habitats include:

- Stockyard operations for cattle and sheep that provide carrion
- Cottonwood removal in riparian areas
- Oil and gas development on private lands
- Beet farming near and within riparian corridors.

Implementation of the Grass Creek RMP would not change any potential effects to the bald eagle that may result from current non-federal actions.

WORLAND FIELD OFFICE: WASHAKIE RMP

The *Record of Decision and Approved Resource Management Plan* (RMP) *for the Washakie Resource Area* (FO) was signed in September 1988 (BLM 1988a). The Washakie RMP applies to the management of approximately 1.23 million acres of public land and approximately 1.6 million acres of federal mineral estate within the Washakie FO. The Washakie FO is in north-central Wyoming and occupies portions of Big Horn, Washakie, and Hot Springs counties. The Washakie, Grass Creek, and Cody RAs are included in the Worland District.

Environmental Baseline

This section presents a summary of the known bald eagle habitats in the Washakie planning area and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may have influenced bald eagles and their habitats.

Nesting Habitat

Eight nests are known to occur within the Washakie planning area (**Figure 15**) (Redder 2002; Stephens 2002; Van Fleet 2002). Two nests are on surface lands administered by BLM, five are on privately owned lands, and one is on lands administered by the state. These nests occur in riparian habitats that are associated with the Bighorn River and Nowood River.

Communal Winter Roosting Habitat

One communal winter roosting area is known to occur in the Washakie planning area (**Figure 15**) (Redder 2002; Stephens 2002). This roost is located on privately owned lands. This roost occurs in riparian habitat associated within the Nowood River drainage.

Concentrated Foraging Habitat

Several habitats are described as concentrated feeding areas, including a sheep stockyard near Worland, areas of the Bighorn River that are ice-free during the winter, and big game road kill found near roadways. Open upland habitats where prey species are abundant are also expected to offer suitable general foraging habitats.

Existing Conservation Measures

The following section presents measures included in the Washakie RMP that may directly or indirectly minimize impacts to the bald eagle.

(a) "Approximately 1,089,000 acres will not be included in designated corridors but will be available for rights of way under certain circumstances. Within this area, threatened and endangered species habitat will be classed as right of way exclusion areas. Right of way avoidance areas will include: potential threatened and endangered species habitat and wetland/riparian habitat" (BLM 1988a, p.14).

(b) "Power line construction will not be allowed within one-half mile of bald eagle nests" (BLM 1988a, p.14).

(c) "Approximately 6,700 acres will be closed to vehicular traffic to protect karst areas and threatened and endangered species habitat" (BLM 1988a, p.21).

(d) "Access (including 4-wheel drive, snowmobile, horseback, and pedestrian access) will be limited in areas of crucial habitats, sensitive species habitats and wetland/riparian habitat" (BLM 1988a, p.25).

(e) "Public lands that provide habitat or potential habitat for threatened and endangered species (three species - bald eagle, peregrine falcon and black-footed ferret) and sensitive species identified by the state of Wyoming (66 individual species and one group of species - bats) will be protected and managed to benefit those species. Whenever activities are proposed in endangered, threatened, or sensitive species habitat, the BLM will complete either a clearance (for minor actions and projects) or a biological assessment (for major actions or projects requiring an EIS) to determine if approval for the action or project should be granted" (BLM 1988a, p.26).

Analysis of Proposed Management Actions and Effects

The RMP includes descriptions of each management prescription applied within the FO. The following text briefly summarizes the activities and any specific mitigation measures associated with each management prescription. The *Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities* will be applied to all surface disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and "no surface occupancy" restrictions that will minimize potential effects to bald eagles and their habitats. Refer to the Washakie RMP for a complete explanation of each prescription.

Area of Critical Environmental Concern Management

Management Action

The Washakie planning area contains five wilderness study areas (WSAs). The BLM will make preliminary recommendations as to the suitability of each WSA for inclusion in the National Wilderness Preservation System, based on wilderness study reports and a final wilderness environmental impact statement. Those recommendations will be submitted to Congress through the Director of the Bureau of Land Management, the Secretary of the Interior, and the President. Congressional decisions will be made a part of the RMP.

The management objective for Spanish Point Karst ACEC management is to protect important cave resources, sinking stream segments, groundwater quantity and quality. All roads and vehicle trails in Dry Medicine Lodge Canyon above the dugway will be closed and rehabilitated where accelerated erosion is occurring. Additional off-road vehicle (ORV) restrictions will be applied as described in the ORV discussion in this plan. All roads and vehicle trails in Dry Medicine Lodge Canyon above the dugway will be closed and rehabilitated where accelerated erosion is occurring. Logging and heavy equipment use restrictions will be applied on steep slopes and stream buffer zones. Noxious weed and grasshopper control measures will be evaluated prior to implementation to minimize potential effects to other resources while achieving effective control.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with ACECs will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effect to bald eagles by limiting harassment and disturbance to potentially suitable nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the ACEC management actions, as presented in the Washakie RMP (1988a), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and maintain or protect suitable bald eagle habitats.

Minerals Management

Management Action

The objective of minerals management is to provide opportunities for the location, leasing, sale, exploration, development, and use of mineral resources consistent with current laws, regulations, and policies, including any related to environmental protection.
All public lands not formally closed to leasing are open for consideration for exploration and development of oil and gas. Oil, gas, and tar sands will be leased under the guidance for mitigating surface-disturbing activities in the Wyoming BLM Standard Oil and Gas Lease Stipulations.

After the issuance of a lease, reasonable and necessary conditions of approval will be applied to applications for permit to drill (APDs), Sundry Notices and any other use authorizations, to protect resource uses and values, consistent with the original intent of the lease. At the time the APD is being reviewed, negotiations among the surface owner, operators, and the BLM may be undertaken to incorporate specific needs of the surface owner. In the event exploration activities result in producing oil or gas wells, specific mitigation requirements for impacts to surface resource values will be developed, based on environmental analyses of plans of operation or development. Approximately 11,200 acres of federal mineral estate in the Spanish Point Karst ACEC will be closed to leasing.

Approximately 86,100 acres of federal mineral estate will be leased with a “no surface occupancy” restriction to protect important wildlife habitat, and cultural and recreation sites. Approximately 985,600 acres of federal mineral estate will be leased with seasonal restrictions to protect important wildlife habitat. Approximately 520,000 acres of federal mineral estate will be leased with other standard surface protection restrictions applied. Contingency plans for the release of hydrogen sulfide gas (“sour gas”) are required for all drilling proposals that penetrate a known or suspected hydrogen sulfide-bearing formation.

Coal exploration will be allowed under the guidance mitigating for surface-disturbing activities in the Wyoming BLM Standard Oil and Gas-Lease Stipulations. If an application for a coal lease is received sometime in the future, an appropriate land-use and environmental analysis, including the coal screening process, will be conducted to determine whether or not the coal areas applied for are acceptable for development and for leasing consideration. The RMP will be amended as necessary.

All proposals for geophysical exploration will be evaluated on a case-by-case basis. Suitable surface protection measures based on the guidance for mitigating surface-disturbing activities in the Wyoming BLM Standard Oil and Gas Lease Stipulations, and access restrictions will be applied. Generally, geophysical exploration will not be allowed on BLM-administered surface that is closed to oil and gas leasing.

All public lands not formally withdrawn or segregated from mineral entry will be open for the exploration and development of locatable minerals. If necessary, areas of special interest or high sensitivity will be formally withdrawn from mineral entry. In other situations, the regulations listed in 43 CFR 3809 and agreements made with the State of Wyoming pursuant to those regulations will be applied to reduce unnecessary and undue degradation of resources as a result of mining. If necessary, additional areas with special values may be proposed for withdrawal from mineral location on a case-by-case basis.

Sales and free use of salable minerals, such as sand and gravel, will occur in existing pits along the Bighorn and Nowood rivers and near Manderson and Ten Sleep. Any proposals for new material extraction sites will be subject to site-specific analysis prior to approval.

Important geologic landmarks, including 14 known sites totaling about 150 acres, will be protected through the use of surface protection stipulations and discretionary management authority.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Human activity associated with oil and gas and mineral development will negatively impact bald eagle behavior by causing bald eagles to avoid or abandon areas with human activity. Construction of roads, pads, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable bald eagle foraging habitats. Construction of new aboveground power lines is often associated with energy and mineral resource development. An increase in the number of aboveground power lines may result in an increase in bald eagle collisions and electrocutions. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wildlife and livestock that can subsequently result in vehicle collisions with bald eagles that forage on roadside carrion. All mineral and oil and gas projects are subject to specific stipulations and regulations that limit surface activities by season and proximity to specific resources, including active bald eagle nests and communal winter roosting areas. These measures will minimize the direct effects of energy and mineral development actions to nesting and communal winter roosting bald eagles.

Determination

Implementation of minerals management actions, as presented in the Washakie RMP (1988a), is **likely to adversely affect** the bald eagle. This determination is based on the potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of bald eagles.

Lands and Realty Management

Management Action

The objective of land and realty management is to provide opportunities for the long-term use of public lands and to provide the disposal of public lands, consistent with current laws, regulations, policies, including those related to environmental protection. The disposal of public lands (e.g., transfer from the administration of the BLM to other federal agencies, or local or state governments, or disposal through methods such as desert land entry, public sale, exchange, state of Wyoming indemnity selection, or Recreation and Public Purposes leases or patents, will be considered on a case-by-case basis. Prior to any disposal action, lands will be evaluated for compliance with established disposal criteria.

The acquisition of non-BLM-administered lands to achieve management objectives will be considered on a case-by-case basis.

Public water reserves withdrawn under Secretarial Order 107 and other classification orders will be reviewed to determine if they meet the retention requirements of legal opinions of the solicitor of the Department of the Interior and of the agreement made between the Department of Justice (for the Department of the Interior) and the State of Wyoming regarding the adjudication of water rights in the Bighorn River drainage. Withdrawals will be terminated on those public water reserves that do not meet the retention requirements.

Existing transportation and utility routes for roads, pipelines, and power lines will be designated as right of way corridors, which would be the preferred location for existing and future right of way grants. Right of way corridors will include major linear rights of way zones, and major short segment linear rights of way zones, as in oil fields.

Approximately 1,089,000 acres will not be included in designated corridors but will be available for rights of way under certain circumstances. Within this area, threatened and endangered species habitat will be classed as right of way exclusion areas. Right of way avoidance areas will include:

- The Spanish Point Karst ACEC
- Potential threatened and endangered species habitat and wetland/riparian habitat
- The Medicine Lodge, Renner, and Billy Miles wildlife HMUs
- Semi-primitive nonmotorized areas
- Cultural resource sites.

Power line construction will not be allowed within one-half mile of bald eagle nests. Power line construction in sensitive wildlife habitats and across streams will be required to incorporate standard or special design features to reduce bird collisions and reduce impacts to habitat. Additional power line construction limitations will be applied on a case-by-case basis in special situations to reduce bird collisions.

Effects Analysis

Power lines, communication towers, pipelines, and roads typically occur within rights of way. These features are known to cause bald eagle injuries and mortalities resulting from collisions and electrocutions. The construction of roads within rights of way may open new areas to human activity that may cause bald eagles to avoid or abandon otherwise occupied habitats.

Lands and realty management actions are not expected to negatively impact bald eagle behavior or habitats. Current BLM land holdings would be evaluated for unique characteristics prior to disposal, including suitability and use by bald eagles. Lands identified as suitable or occupied bald eagle habitats would not likely be available for disposal. Lands not under BLM jurisdiction that are suitable or occupied bald eagle habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to bald eagle habitats that may not be afforded under non-federal ownership.

Determination

Activities associated with land and realty management, as presented in the Washakie RMP (1988a), are **likely to adversely affect** the bald eagle. This determination is based on the potential for facilities typically included within rights of way to result in take. Land acquisition and withdrawal actions may have beneficial effects to the bald eagle by maintaining or acquiring suitable bald eagle habitats.

Forest Management

Management Action

The objective of forest management is to enhance watershed, wildlife, and forest values through maintenance of a viable and healthy timber base. Fuelwood will not be harvested in riparian areas unless conducted to improve fish and wildlife habitat. Cottonwood will be protected for wildlife needs and will not be sold for fuelwood. Within the areas classified as commercial forestland, timber harvesting will be conducted in a manner that will protect and benefit watershed, wildlife, and wetland/riparian habitat values. Slash resulting from timber harvesting will be lopped and scattered, roller chopped, or burned to provide watershed protection, nutrient recycling, and wildlife habitat improvement. Silvicultural practices will be allowed in elk calving areas if such practices will benefit the calving areas. A precommercial thinning backlog on 450 acres of commercial forestland will be eliminated and future backlogs will be avoided by regular thinning of all overstocked stands when they reach the 20- to 30-year age class. A reforestation backlog on 200 acres of unstocked forestland will be eliminated. Additionally, all timber stands that are harvested and are not reestablished by natural regeneration will be planted with conifer species.

The harvest of forest products and other vegetative treatments will be considered on all forest and woodland areas to accomplish wildlife, watershed, and forest management objectives. Harvesting and other practices will be designed to accomplish one or more of the following:

- Improve wildlife cover and other habitat conditions
- Maintain existing levels of thermal cover for wildlife
- Increase forage production for wildlife or livestock
- Compensate for loss of wildlife habitat because of natural tree mortality
- Harvest stands with heavy tree mortality and fuels accumulation
- Increase aspen cover
- Increase timber stand diversity and age structure
- Reduce fire danger
- Increase recreational opportunities in healthy, vigorous timber stands
- Provide fuelwood cutting opportunities
- Improve health and vigor of vegetation in stream buffer stands
- Prevent the transport of sediments and harvesting debris to ephemeral and perennial streams
- Allow the pre-harvested watershed condition to be reestablished through reforestation.

Actual harvest levels will be based on treatments needed to meet management objectives. Allowable cut figures, when calculated, will reflect the level of harvest needed to develop and maintain the desired structure of the forestland base. Forest products, including fuelwood and posts and poles, will be harvested.

Commercial forest vegetative treatments will consist of clear cuts and shelterwood cuts in lodgepole pine, and selective or shelterwood cuts in the various other coniferous types. The annual harvest will come from lodgepole pine and from other coniferous types.

Woodland treatments will be done primarily in aspen and juniper stands. The objective of aspen stand treatments will be to revitalize decadent stands, increase stand density, and increase canopy cover. Juniper stands will be managed to provide improved wildlife habitat and forage conditions.

Various management techniques will be applied to attain the management goals of timber production and enhancement of other resource values if traditional forms of logging are not possible or if stands are not purchased when offered for sale. These may include:

- Helicopter logging
- Burning instead of logging
- Disease treatment by spraying
- Spraying of grasses and shrubs to eliminate competition with tree species.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Forest management actions will occur in upland coniferous forests. In the Washakie planning area, bald eagles are typically associated with cottonwood forests of riparian habitats for nesting and communal winter roosting and open upland habitats for foraging. These bald eagle habitats are distinct from the coniferous habitats that are subject to forest management actions. Therefore, bald eagles are not expected to experience detrimental effects as the result of forest management actions.

Determination

Implementation of forest management actions, as presented in the Washakie RMP (1988a), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the extremely low likelihood that forest management activities may affect the bald eagle.

Wild Horse Management

Management Action

The objective of wild horse management will be to reduce damage to range developments, soil and vegetation, and to reduce competition for livestock and wildlife forage. All wild horses in the Zimmerman Springs Wild Horse Herd Management Area (WHHMA) will be removed from the area and will be made available for adoption through the BLM's "Adopt-A-Horse Program" or be relocated to another designated WHHMA.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with wild horse management are expected to be limited to herding, corralling, and transporting of horses. The increase in human presence associated with these activities may temporarily alter the behavior of terrestrial foraging bald eagles. These actions are not expected to detrimentally impact the behavior of nesting or communal winter roosting bald eagles or nesting or roosting habitats.

Determination

Implementation of wild horse management, as presented in the Washakie RMP (1988a), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that bald eagles will be adversely affected by actions associated with management of wild horses.

Range and Livestock Grazing Management

Management Action

The objective of livestock grazing management is to provide forage for livestock grazing, to reduce conflicts between livestock grazing and other resource uses, and to improve the ecological condition of the range. Total authorized annual livestock grazing use will not exceed 143,000 AUMs. Seasons of use, number, kind, and class of livestock will be established on those allotments that currently have no season of use or number of livestock designated. These will be established as the current term permit/leases expire or when allotment management plans or management agreements are implemented. Authorized grazing use will be permanently or temporarily adjusted for the 300 to 500 acres taken out of production each year by mineral patents, other disposals, and other permanent or temporary uses. Where appropriate, the BLM will assist the WGFD in accomplishing the Department's management objectives for wildlife HMUs and other important habitats. Actions that may be employed include habitat improvement projects, reducing or eliminating livestock grazing, or other practices that will help meet management objectives and enhance the quality of these habitats. Approximately 2,000 AUMs of forage traditionally used when permittees trail their livestock from one pasture or allotment to another, but that are not allocated to specific allotments, will be allocated for trailing in the Worland-Ten Sleep, Nowater, Rome Hill, and Cottonwood stock driveways. Access on the South Trapper Rim, South Brokenback, and North Brokenback roads, and a crossing of the Nowood River between Ten Sleep and Box Elder Ranch will be acquired to facilitate range management and other uses of the public lands.

The eighteen existing AMPs will be revised, if necessary, and implemented. New AMPs or management agreements will also be developed and implemented. These activities will take place at an average rate of three allotments per year.

Any new range projects proposed will be subjected to economic and environmental analyses. Adequate information to determine the economic benefits and costs and the environmental consequences will be collected before projects are approved for construction. All projects will be designed to meet allotment management objectives and to be multiple-use projects or at least to minimize any impacts to other resource values. Private contributions of labor, materials, and/or funds will be encouraged on all projects.

Approximately 1,400 existing range development projects will be maintained in accordance with the current agreements or permits. The following are the types and estimates of new projects that will be implemented, with funding priority given to "I" category allotments:

- 200 miles of fence
- 70 spring developments
- 60 reservoirs
- 100 miles of water pipeline
- 10 water catchments
- 8,100 acres of sagebrush spraying
- 26,000 acres of prescribed fire treatment

Subject to prior approval, including an environmental assessment and under the supervision of the BLM, the construction of livestock management facilities, the implementation of grazing management systems, and the control of sagebrush and juniper stands through chemical or mechanical means or through the use of prescribed fire, will be allowed on "M" category allotments, using private funds. Facilities and practices must be consistent with the objectives of maintaining or improving current satisfactory range condition and forage production. The construction of livestock management facilities using private funds and the development of grazing systems will be allowed on "C" category allotments, subject to prior approval, including an environmental assessment and supervision by the BLM. Any projects permitted must be consistent with the management objectives of the allotment and with the RMP.

Livestock grazing will continue as currently authorized on all 307 allotments administered by the Washakie planning area, unless adequate data are available to support adjustments. Season of use, distribution, and kind, class, and number of livestock will be adjusted on a case-by-case basis or as AMPs/management agreements are developed on the allotments. These adjustments will be implemented to improve vegetative and wildlife resources and to protect areas unsuitable for livestock grazing. Any adjustments in livestock grazing use will be made as a result of monitoring and in consultation with grazing permittees and other affected interests. All "I" and "M" category allotments and allotment management plans will be monitored. Monitoring of "C" category allotments will also occur but will be low priority. Monitoring will be continued following any adjustments in grazing use to assure allotment management objectives are being met. Monitoring will be conducted in accordance with the Washakie Planning Area Monitoring Plan that will be completed following the issuance of the Washakie Planning Area RPS.

Livestock grazing will be managed in wetland/riparian areas to allow steady, long-term restoration and improvement of habitat conditions. Fences will be built around wetland/riparian areas, as appropriate, to improve management and to reduce problems on perennial and ephemeral streams, reservoirs, and springs. New grazing systems will be implemented to restore and enhance wetlands.

Aspen stands throughout the planning area will be protected from livestock grazing. Priority areas for protection are the Brokenback, Onion Gulch, and Upper Alkali Road areas. Methods of protection include use of rest/rotation grazing systems, establishment of salt stations away from aspen stands, and fencing.

If grazing management techniques described or referenced above are not adequate to meet the objectives of resource management, livestock grazing will be reduced or eliminated on some allotments or portions of allotments, especially around sources of springs, reservoirs, other riparian areas including tracts identified in the Bighorn River Habitat Management Plan (HMP), aspen stand regeneration areas, and crucial big game winter ranges.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Improvements to grazing allotments intended to increase available forage, including use of heavy equipment and alteration of existing vegetation composition, may detrimentally influence bald eagle behavior. More severe effects would be expected if improvements occurred near active bald eagle nesting or communal winter roosting areas. Improvement activities may affect foraging bald eagles, but the availability and distribution of suitable foraging habitats throughout the FO provide alternative areas and thereby diminish the potential for effects to foraging eagles. Livestock grazing in riparian areas may lead to adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable cottonwood tree sapling recruitment, and reduction in populations of suitable prey species (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). These effects may require years to accumulate to detrimental levels, but cumulatively these effects may lead to deterioration of active bald eagle nesting and communal winter roosting habitats.

Determination

Implementation of livestock grazing management actions, as presented in the Washakie RMP (1988a), is **likely to adversely affect** the bald eagle. This determination is based on the potential for range improvement activities to harass or displace bald eagles and the potential for livestock grazing to adversely affect riparian areas.

Cultural Resource Management

Management Action

The objective of cultural resource management is to protect and preserve representative samples of cultural resources present in the FO, to manage cultural resources to maintain and enhance scientific and socio-cultural values, and to ensure that BLM actions avoid inadvertent damage to cultural resources. Protective measures will be implemented for all important cultural sites, either known or identified in the future. Important paleontological sites will be protected through surface and subsurface protection stipulations and discretionary management authority.

No specific requirements or guidelines applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural, natural history, and paleontological resource management may detrimentally affect bald eagle behavior by causing eagles to avoid or abandon areas where management actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Surface disturbing activities are restricted at known nests and communal winter roosts, but not within terrestrial foraging habitats. Disturbance and destruction of terrestrial foraging habitats is possible.

Determination

Implementation of cultural, natural history, and paleontological resource management actions, as presented in the Washakie RMP (1988a), is **likely to adversely affect** the bald eagle**.** This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Off-Road Vehicle Management

Management Action

The objective of off-road vehicle (ORV) management is to control ORV use to reduce damage to fragile soils, wetlands, cultural values, and wildlife habitat. Approximately 6,700 acres will be closed to vehicular travel to protect karst areas and threatened and endangered species habitat. Approximately 1,227,300 acres will have vehicle use limitations imposed in order to protect crucial habitat, fragile soils, and wetlands. No areas will be designated as open without limitation to vehicular travel. No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Much of the Washakie planning area is not subject to open ORV use. ORV use in the FO is best characterized as limited in frequency and intensity. ORV management and use in the Washakie planning area is not expected to result in detrimental effects to bald eagle behavior or nesting, communal winter roosting, or foraging habitats.

Determination

Implementation of ORV management actions, as presented in the Washakie RMP (1988a), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that effects from ORV use will result in take.

Recreation Resource Management

Management Action

The objective of recreation management is to enhance and expand opportunities for recreation while intensively managing areas with high recreation values. Opportunities for recreational access will be emphasized, especially in the Laddie Creek, Paint Rock Creek, and Upper Nowood River areas. Restrictions on recreational use will include applicable ORV restrictions, the use of the caves, and management prescriptions written for special recreation management areas. Protecting cave resources and providing for user safety will be accomplished with controls such as limiting party size, timing of use to avoid crowding, and closing caves to use during periods of high water runoff. Prescriptions written for special recreation management areas will include directing recreational use, protecting important resources, and reducing conflicts with other uses. Special recreation permits will be issued to authorize organized recreational use.

About 241,000 acres on portions of the west slope of the Bighorn Mountains will be designated as a Special Recreation Management Area (SRMA). About 59,000 acres along the Bighorn River from the Wedding of the Waters downstream to Shell Creek also will be designated as an SRMA. The remainder of the planning area, about 934,000 acres, will be designated as an Extensive Recreation Management Area (ERMA).

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with recreational management and use have the potential to detrimentally impact bald eagle behavior and habitats. An increase in human activity associated with management actions or use may cause bald eagles to avoid or abandon otherwise suitable habitats. Recreational use is often concentrated in riparian areas. Impacts to these habitats may be detrimental to nesting and communal winter roosting bald eagles.

Determination

Implementation of recreation resource management actions, as presented in the Washakie RMP (1988a), is **likely to adversely affect** the bald eagle. This determination is based on the potential for recreation management and use to cause bald eagle harassment, displacement and to disturb or destroy suitable nesting and communal winter roosting habitats.

Visual Resource Management

Management Action

The objective of visual resource management is to minimize adverse visual impacts to the land while maintaining the effectiveness of land use allocations. Visual resource management objectives will be considered in the evaluation of all proposals for activities on the public lands in the planning area. Impacts to visual resources will be mitigated through applying the guidance for mitigating surface-disturbing activities in the Wyoming BLM Standard Oil and Gas Lease Stipulations or by mitigations developed through the environmental analysis process.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with visual resource management will not directly impact bald eagle behavior or habitats. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be suitable for bald eagles or their prey.

Determination

Implementation of visual management actions, as presented in the Washakie RMP (1988a), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that implementation of these actions may preserve or minimize disturbance to habitats that may be suitable to bald eagles or their prey.

Fish and Wildlife Habitat Management

Management Action

The objective of fish and wildlife habitat management is to protect and enhance important fish and wildlife habitats. *The West Slope Habitat Management Plan* (HMP), including the expanded areas of the Washakie FO, and the Bighorn River HMP will be implemented. Wetlands will be managed to maintain and improve habitat through the implementation of changes in livestock grazing systems and specific practices contained in the West Slope and Bighorn River HMPs. Specific practices may include such things as plantings, fencing, using buffer zones, and installing structures to control water levels and prevent siltation. Wildlife habitat management will be accomplished through protection of habitat from destruction or negative impacts, and by

habitat development or manipulation. Specific numbers, types, and locations of projects and conditions of their development will be prescribed in habitat management plans or other activity plans to solve problems and meet management objectives. The protection of habitat will be accomplished through such methods as:

- Improving range condition
- Withdrawing public land tracts from mineral or other entry
- Increasing animal security by controlling access
- Restricting oil and gas exploration and development in important habitat areas
- Designating seasons of use or reducing disturbances in important wildlife habitat
- Providing buffer zones
- Eliminating competing uses on important areas, such as livestock grazing on parturition areas during calving seasons

Techniques that will be used to develop or manipulate habitat include the following:

- Land acquisition
- Easement acquisition
- Farming
- Prescribed burning
- Protection or development of water sources
- Fence construction
- Fence maintenance
- Island development
- Timber management
- Access management
- Withdrawals from mineral entry, agricultural entry and disposal
- Use of surface protection mitigations
- Modification of existing projects, such as fence modification
- Construction of artificial structures
- Management of other resource activities to conserve forage and protect habitat

With the exception of the Spanish Point Karst ACEC, chemical control of pests will be allowed throughout the planning area. This will be subject to restrictions to protect food chains and important wildlife habitat and wetlands identified in Records of Decision on the Northwest Area Noxious Weed Control Program, the Rangeland Grasshopper Cooperative Management Program, findings of the Department of the Interior's Pesticide Program Review, and subsequent EISs and EAs.

Access (including 4-wheel drive, snowmobile, horseback, and pedestrian access) will be limited in areas of crucial habitats, sensitive species habitats, and wetland/riparian habitat. The type of limitation will depend on the kind of resource value being protected.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with fish and wildlife habitat management may influence bald eagle behavior by causing eagles to avoid or abandon habitats experiencing active management projects. Potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy

machinery versus hand tools, and type of bald eagle habitat affected. The implementation of these actions will likely have positive effects by maintaining or improving existing habitat conditions that will benefit bald eagles and their prey.

Determination

Implementation of fish and wildlife habitat management actions, as presented in the Washakie RMP (1988a), is **likely to adversely affect** the bald eagle. This determination is based on the potential for these actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Threatened and Endangered Wildlife Species Management

Management Action

The objective of threatened and endangered species management is to protect their habitats and to allow for their reintroduction or maintenance. Public lands that provide habitat or potential habitat for threatened and endangered species and sensitive species identified by the State of Wyoming will be protected and managed to benefit those species. Whenever activities are proposed in endangered, threatened, or sensitive species habitat, the BLM will complete either a clearance or a biological assessment to evaluate whether approval for the action or project should be granted.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with threatened and endangered wildlife species will not result in detrimental impacts to bald eagle behavior or their habitats. These actions will result in positive effects to bald eagles by limiting harassment and disturbance to nesting, communal winter roosting, and concentrated foraging areas.

Determination

Implementation of the threatened and endangered wildlife species management actions, as presented in the Washakie RMP (1988a), is **not likely to adversely affect** the bald eagle, due to **beneficial effects.** This determination is based on the potential that these actions will limit the harassment and displacement of bald eagles and minimize adverse effects to nesting, communal winter roosting, and foraging habitats.

Soil and Water Management

Management Action

The objective of soil and water management is to stabilize soils, increase vegetative production, and maintain water quality. With the exception of the Spanish Point Karst ACEC, chemical control of pests will be allowed throughout the planning area. This will be subject to restrictions to reduce the possibilities of water pollution identified in Records of Decision on the Northwest Area Noxious Weed Control Program, the Rangeland Grasshopper Cooperative Management Program, and subsequent EISs and EAs. Streams in west slope canyons will be managed to maintain their natural flow patterns. The guidance for mitigating surface-disturbing activities in the Wyoming BLM Standard Oil and Gas Lease Stipulations will be used as the basis for determining restrictions to be applied to activities to prevent watershed deterioration and sedimentation of these stream systems.

Oil and gas exploration wells and geophysical drill holes that produce water may be acquired by BLM, developed, and managed for livestock, wildlife, or recreation purposes when they meet the criteria listed in the Washakie RMP/FEIS.

Management actions will include the use of Best Management Practices (BMPs) to increase vegetative cover, primarily through changes in livestock management, and to stabilize watersheds with water flow and sediment control structures.

No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Management of soil and water resources is not expected to detrimentally impact bald eagle behavior or suitable nesting, communal winter roosting, or foraging areas. Actions associated with soil resource management may detrimentally influence bald eagle behavior by causing them to avoid or abandon areas where actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of bald eagle habitat affected. Implementation of soil resource management actions may maintain or improve the condition of some habitats and therefore may result in beneficial effects to suitable nesting, communal winter roosting, and foraging habitats.

Determination

Implementation of soil and water management actions, as presented in the Washakie RMP (1988a), is **likely to adversely affect** the bald eagle. This determination is based on the potential for implementation of soil management actions to harass or displace bald eagles and the absence of measures included in this action that would minimize the potential for these effects.

Fire Management

Management Action

The objective of fire management is to protect resource values, property, and human life from loss caused by wildfire, and to use prescribed fire to meet other resource management objectives. Reclamation and soil stabilization practices will be applied to burned areas. Additionally, livestock grazing will be controlled on burned areas through such methods as fencing or resting from livestock grazing. Prescribed fire will be used to achieve management objectives, especially those identified in detailed activity plans such as allotment management plans (AMPs) and HMPs. Prescribed burning will be conducted in a manner that will not violate the Wyoming ambient air quality standards. Full suppression of wildfires, with appropriate restrictions, will occur in wetland and riparian areas. Full suppression of wildfires will occur on approximately 703,000 acres within the Washakie FO. Limited suppression of wildfires will occur on approximately 530,000 acres. No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by bald eagles. If these actions were to occur in occupied habitats, they may negatively affect bald eagle behavior by causing eagles to abandon or avoid habitats. Increased human activity associated

with wildfire suppression or prescribed burning may alter bald eagle behavior. Terrestrial habitats, including bald eagle foraging, nesting, and communal winter roosting habitats, may be altered through the use of hand tools, off-road vehicles, and heavy machinery.

Determination

Implementation of fire management actions, as presented in the Washakie RMP (1988a), is **likely to adversely affect** the bald eagle. This determination is based on the potential for activities associated with wildfire suppression and prescribed burning to harass or displace bald eagles and to disturb or destroy suitable nesting, communal winter roosting, and foraging habitats. In addition, there are no mitigation measures included in this action that would minimize potential for effects to bald eagles.

Hazardous Materials Management

Management Action

The objective of hazardous materials management is to protect human health, welfare, and the environment. Regulated hazardous wastes that are discharged on public land will be secured, disposed of, or otherwise remedied in accordance with the regulations of the Environmental Protection Agency, BLM, and the State of Wyoming. No specific requirements or guidelines that are applicable to bald eagle mitigation are included for this resource in the RMP.

Effects Analysis

Emergency responses involving increased human presence and the use of machinery and heavy equipment may influence bald eagle behavior by causing bald eagles to avoid or abandon otherwise suitable habitats. Depending upon the location and severity of hazardous material releases, bald eagle nesting, wintering roosting, and foraging habitats may be affected. Hazardous material release and response actions may also affect potential bald eagle prey by causing injury or mortality, displacing prey from suitable habitats, or disturbing prey habitats. These potential effects to prey and their habitats would likely be limited in scale relative to the abundance of prey and foraging habitat available throughout the Washakie planning area.

Determination

Implementation of hazardous materials management actions, as presented in the Washakie RMP (1988a), is **not likely to adversely affect** the bald eagle, due to **discountable effects.** This determination is based on the low likelihood that releases of hazardous materials and subsequent response actions will harass or displace bald eagles and disturb or destroy suitable eagle habitats.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Washakie RMP management actions.

TABLE 13: SUMMARY OF DETERMINATIONS FOR THE WASHAKIE RMP	
Resource	**Determination**
ACEC	Not likely to adversely affect, due to beneficial effects
Minerals	Likely to adversely affect
Lands and Realty	Likely to adversely affect
Forest	Not likely to adversely affect, due to discountable effects
Wild Horse	Not likely to adversely affect, due to discountable effects
Range and Livestock	Likely to adversely affect
Cultural Resources	Likely to adversely affect
Off-road Vehicles	Not likely to adversely affect, due to discountable effects
Recreation	Likely to adversely affect
Visual Resources	Not likely to adversely affect, due to beneficial effects
Fish and Wildlife	Likely to adversely affect
Threatened and Endangered Species	Not likely to adversely affect, due to beneficial effects
Soil and Water	Likely to adversely affect
Fire	Likely to adversely affect
Hazardous Materials	Not likely to adversely affect, due to discountable effects

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Washakie planning area. Existing and proposed activities on non-federal lands in the Washakie planning area that could affect bald eagles or their habitats include:

- Stockyard operations for cattle and sheep (which provide carrion) along the Bighorn and Nowood Rivers
- Cottonwood removal in riparian areas
- Oil and gas development on private lands
- Beet farming near and within riparian corridors

Implementation of the Washakie RMP would not change any potential effects to the bald eagle that may result from current non-federal actions.

4.0 CONSERVATION RECOMMENDATIONS

In addition to measures and restrictions presented in the individual RMPs, the following recommended conservation measures may further reduce potential effects to bald eagle behavior and their habitats. These recommended measures were prepared in coordination with the U.S. Fish and Wildlife Service.

1. When project proposals are received, BLM should initiate coordination with the USFWS at the earliest possible date so that USFWS can advise on project design. This should minimize the need to redesign projects at a later date to include bald eagle conservation measures, determined as appropriate by the USFWS.

2. Appropriately timed surveys in bald eagle habitats should be conducted prior to any activities and subsequent authorization that may disturb bald eagles or their habitats. A qualified biologist (not limited by job title) would be approved by the BLM to conduct such bald eagle surveys. All nest surveys should be conducted using procedures that minimize the potential for adverse effects to nesting raptors.

   In the event species occurrence is verified, the proponent may be required to modify operational plans, at the discretion of the authorized officer, to include the appropriate measures for minimization of effects to the bald eagle and its habitats.

   See **Appendix C** for a description of appropriate survey methodology.

3. Each year BLM should verify the status of known bald eagle nests, communal winter roosts, and concentration areas on lands administered by BLM. As a matter of maintaining inventory information, BLM should coordinate annually with USFWS, WGFD, and other appropriate entities to determine the status of known and new bald eagle nests, communal winter roosts, and other concentration areas. Known bald eagle nests, communal winter roosts, and concentration areas will be assumed active if status has not been verified.

4. Activities and habitat alterations that may disturb bald eagles will be restricted within suitable habitats that occur within bald eagle buffer zones (see Appendix D for detailed descriptions).

   Zone 1 (within ½ mile 1 February to 15 August) is intended to protect active and alternative nests. For active nests, minimal human activity levels are allowed during the period of first occupancy to two weeks after fledging.

   Zone 2 (within ½ - 1 mile from the nest) is intended to protect bald eagle primary use areas and permits light human activity levels.

   Zone 3 is designated to protect foraging/concentration areas year-round Zone 3 would include one of two larger areas, depending on habitat types: a) 2.5 miles extending in all directions from the nest or b) ½ mile from the streambank of all streams within 2.5 miles of the nest. Site-specific habitat types and foraging areas will be evaluated to determine which Zone 3 buffer applies. Zone delineation depends on habitat types. Exceptions may be made after consultation with USFWS.

5. Activities that may disturb bald eagles will be restricted within 1 mile of known communal winter roosts during the period of November 1 – April 1. No ground disturbing activities will be permitted within 1 mile of active roost sites year round.

6. BLM-administered lands that are within 1 mile of an integral part of bald eagle habitats including nests, communal winter roosts, and foraging/concentration areas should not be exchanged or sold.

7. Power lines should be built to standards identified by the Avian Power Line Interaction Committee (APLIC 1996).

8. Proponents of BLM authorized actions should be advised that roadside carrion can attract foraging bald eagles and potentially increase the risk of vehicle collisions with bald eagles feeding on carrion. When large carrion occurs on the road, appropriate officials should be notified for necessary removal.

9. BLM should coordinate with APHIS - Wildlife Services Division to minimize potential impacts to the bald eagle and its habitats from pest/predator control programs that may be included in the local animal damage control plan. USFWS should also be included in this coordination.

10. Proposed and future water projects should not be designed to discharge into drainages or reservoirs occurring within 500 feet of county roads and highways. This measure is intended to minimize vehicle collisions with wildlife, using the water source and subsequent eagle-vehicle collisions.

11. BLM should provide educational information to project proponents and the general public pertaining to the following topics: appropriate vehicle speeds and the associated benefit of reduced vehicle collisions with wildlife; use of lead shot (particularly over water bodies); use of lead fishing weights; and general ecological awareness of habitat disturbance.

12. In the event a dead or injured bald eagle is observed, the USFWS Wyoming Field Office (307-772-2374) and the USFWS Law Enforcement Office (307-261-6365) should be notified within 24 hours of the discovery.

13. BLM should coordinate with other agencies and private landowners to identify voluntary opportunities to modify current land stewardship practices that may impact the bald eagle and its habitats.

14. BLM should monitor and restrict, when and where necessary, authorized or casual use activities that may impact bald eagles or their habitats, including, but not limited to, recreational mining and oil and gas activities.

15. BLM should periodically review existing water quality records (e.g., WDEQ, WGFD, USGS, etc.) from monitoring stations on, or near, important bald eagle habitats (i.e., nests, roosts, concentration areas) on public land for any conditions that could potentially adversely affect the species. If water quality problems are identified, the BLM should contact the appropriate jurisdictional entity to cooperatively monitor the condition and/or take corrective action.

16. Projects with the potential to disturb bald eagles should be implemented in the least amount of time and during periods least likely to affect the bald eagle.

17. Projects with the potential to disturb bald eagles or their habitats should be monitored, and the monitoring results should be considered in the design and implementation of future projects.

5.0 REFERENCES

Anderson, S. and C. Patterson. 1988. Characteristics of Bald Eagle Winter Roosts in Wyoming. Prairie Naturalist. 203(3):147-152.

Andrews, K. 2002. Personal Communication [February 5, 2002 telephone conversation with P. Golden, Biologist, Greystone Consultants. *RE*: bald eagle occurrence information within the Pinedale Resource Area]. Mr. Andrews is a wildlife biologist with the BLM, Pinedale, Wyoming.

APLIC (Avian Power Line Interaction Committee). 1996. Suggested practices for raptor protection on power lines: That state of the art in 1996.

Apple, L. 2002. Personal Communication [February 27, 2002 telephone conversation with P. Avant, Biologist, Greystone Consultants. *RE*: bald eagle occurrence information within the Great Divide (Rawlins) Resource Area]. Mr. Apple is a wildlife biologist with the BLM, Rawlins, Wyoming.

Bills, T. 2002. Personal Communication [May 6, 2002 telephone conversation with S. Faulk, Biologist, Greystone Consultants. *RE*: bald eagle occurrence information within the Buffalo Resource Area]. Mr. Bills is a wildlife biologist with the BLM, Buffalo, Wyoming.

Bills, T. 2003. Personal Communication [April 21, 2003 telephone conversation with P. Avant, Greystone Consultants. *RE*: bald eagle occurrence information within the Buffalo Resource Area]. Mr. Bills is a wildlife biologist with the BLM, Buffalo, Wyoming.

Breckenridge, C. 2002. Personal Communication [February 5, 2002 telephone conversation with P. Golden, Biologist, Greystone Consultants *RE*: Bald eagle occurrence information within Lander Resource Area]. Ms. Breckenridge is a wildlife biologist with the BLM, Lander, Wyoming.

Buehler, D.A. 2000. Bald Eagle (*Haliaeetus leucocephalus*). *In*: The Birds of North America, No. 506 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Drive, Danvers, MA 01923.

Bureau of Land Management (BLM). 1979. Southern Big Horn Mountain Oil and Gas Leasing Environmental Assessment Record. On file at the Platte River Resource Area office, Casper, Wyoming.

Bureau of Land Management (BLM). 1981. Scab Creek Wilderness in Sublette County. Final Wilderness Report with Environmental Impact Statement. Rock Springs, Wyoming.

Bureau of Land Management (BLM). 1982. Programmatic Environmental Assessment for Oil and Gas Leasing in the Platte River Resource Area. EA no. WY-062-1-13. Casper, Wyoming.

Bureau of Land Management (BLM). 1983. Draft Rock Springs District Wilderness Environmental Impact Statement. Rock Springs District, Rock Springs, Wyoming.

Bureau of Land Management (BLM). 1985a. Timber Harvest Calculations. Rock Springs District, Rock Springs, Wyoming.

Bureau of Land Management (BLM). 1985b. Record of Decision for the Resource Management Plan / Final Environmental Impact Statement. Platte River Resource Area, Casper District. Casper, Wyoming. July 1985.

Bureau of Land Management (BLM). 1985c. Record of Decision for the Resource Management Plan / Final Environmental Impact Statement. Platte River Resource Area, Casper District. Casper, Wyoming. July 1985. Located at http://web.ead.anl.gov/rmpweb/application/index.cfm?rmpid=86. Accessed: February 15, 2003.

Bureau of Land Management (BLM). 1986. Record of Decision for the Kemmerer Resource Management Plan and Rangeland Program Summary Document. Kemmerer Resource Area. Rock Springs, Wyoming. June 1986.

Bureau of Land Management (BLM). 1987a. Record of Decision for the Lander Resource Management Plan. Lander Resource Area. Rawlins District. Rawlins, Wyoming. June 1987.

Bureau of Land Management (BLM). 1987b. Interim Management Policy and Guidelines for Lands Under Wilderness Review. BLM Manual. Washington, D.C.

Bureau of Land Management (BLM). 1988a. Record of Decision and Approved Resource Management Plan for the Washakie Resource Area. Washakie Resource Area. Worland District. Worland, Wyoming. September 1988.

Bureau of Land Management (BLM). 1988b. Record of Decision and Resource Management Plan for the Pinedale Resource Area. Pinedale Resource Area. Rock Springs District. Rock Springs, Wyoming. December 1988.

Bureau of Land Management (BLM). 1990a. Record of Decision and Approved Resource Management Plan for the Cody Resource Area. Cody Resource Area. Worland District. Worland, Wyoming. November

Bureau of Land Management (BLM). 1990b. Record of Decision and Approved Resource Management Plan for Great Divide Resource Area. Great Divide Resource Area. Rawlins District. Rawlins, Wyoming. November 1990.

Bureau of Land Management (BLM). 1992. Final Bald Eagle Habitat Management Plan for the Platte River Resource Area and Jackson Canyon ACEC. Casper District Office.

Bureau of Land Management (BLM). 1997. Record of Decision and Green River Resource Management Plan. Green River Resource Area. Rock Springs District. Rock Springs, Wyoming. October 1997.

Bureau of Land Management (BLM). 1998. Record of Decision and Approved Resource Management Plan for the Grass Creek Planning Area. Grass Creek Planning Area. Worland District. Worland, Wyoming. September 1988.

Bureau of Land Management (BLM). 2000. Record of Decision and Approved Resource Management Plan for Public Lands Administered by the Newcastle Field Office. Newcastle Resource Area. Newcastle, Wyoming. September 2000.

Bureau of Land Management (BLM). 2001. Approved Resource Management Plan for Public Lands Administered by Bureau of Land Management Buffalo Field Office. Buffalo, Wyoming. April 2001.

Call, M.W. 1978. Nesting habitats and surveying techniques for common western raptors. U.S. Department of the Interior, Bureau of Land Management, Technical Note No. 316. 115 pp.

Chaney, E., W. Elmore, W.S. Platts. 1990. Livestock Grazing on Western Riparian Areas. Produced for the U.S. Environmental Protection Agency by the Northwest Resource Information Center, Inc., Eagle, Idaho.

Fitzgerald, W. 2002. Personal Communication [February 7, 2002 telephone conversation with P. Golden, Biologist, Greystone Consultants *RE*: Bald eagle occurrence information within Platte River Resource Area]. Mr. Fitzgerald is a wildlife biologist with the BLM, Casper, Wyoming.

Grier, J.W., and R.W. Fyfe. 1987. Preventing research and management disturbance. Pages 173-182 In B.A.G. Pendleton, B.A. Milsap, K.W. Cline, and D.M. Bird, editors. Raptor management techniques. Institute of Wildlife Research, National Wildlife Federation, Scientific and Technical Series No. 10. 420 pp.

Harrell, D. 2003. Personal Communication [April 8, 2003, telephone conversation with P. Avant, Biologist, Greystone Consultants. *RE*: Future project information and cumulative effects within the Cody Field Office]. Mr. Harrell is a wildlife biologist with the BLM, Cody, Wyoming.

Jennings, M. 2002. Personal Communication [March 25, 2002 telephone conversation with P. Avant, Biologist, Greystone Consultants *RE*: Inter-agency agreement with BLM pertaining to potential effects to bald eagle from livestock grazing for the state of Wyoming]. Ms. Jennings is a wildlife biologist with the USFWS, Cheyenne, Wyoming.

Keith, L. 2002. Personal Communication [February 28, 2002 telephone conversation with P. Avant, Biologist, Greystone Consultants. *RE*: Bald eagle occurrence information within the Green River (Rock Springs) Resource Area]. Mr. Andrews is a wildlife biologist with the BLM, Rock Springs, Wyoming.

Kauffman, J., and W. Krueger. 1984. Livestock impacts on riparian ecosystems and streamside management implications…a review. Journal of Range Management 37(5): 430-437.

Lebsack, G. 2002. Personal Communication [February 5, 2002 telephone conversation with P. Golden, Biologist, Greystone Consultants *RE*: Bald eagle occurrence within Newcastle Resource Area]. Mr. Lebsack is a wildlife biologist with the BLM, Newcastle, Wyoming.

Menke, J. C. Davis, ands P. Beesley. 1996. Rangeland Assessment. Sierra Nevada Ecosystem Project: Final report to Congress, vol. III. Assessments, Commissioned Reports, and Background Information. Davis: University of California, Centers for Water and Wildland Resources.

Minta, S.C. and T.M. Campbell III. 1991. Recommendations for Wildlife and Habitat Protection, Teton County, Wyoming. Prepared for Teton County Board of County Commissioners. Biota Research and Consulting, Inc. 20pp.

National Park Service (NPS). 1997. Snake River Management Plan. Grand Teton National Park, Jackson, WY.

Phinney, V. 2002. Personal Communication [February 25, 2002 letter to P. Golden, Biologist, Greystone Consultants *RE*: Bald eagle occurrence information within Kemmerer Resource Area]. Mr. Phinney is a wildlife biologist with the BLM, Kemmerer, Wyoming.

Redder, A. 2002. Personal Communication [March 15, 2002 letter to P. Avant, Project Manager, Greystone Consultants *RE*: delivery of requested bald eagle nest and occurrence data for the state of Wyoming]. Mr. Redder is the data manager for the Wyoming Natural Diversity Database, Laramie, Wyoming.

Saville, Dennis. 2002. Personal Communication [April 2, 2002 telephone conversation with S. Faulk, Biologist, Greystone Consultants *RE*: Bald eagle occurrence in the Cody Resource Area]. Mr. Saville is a wildlife biologist with the BLM, Cody, Wyoming.

Stephens, T. 2002. Personal Communication [February 27, 2002 telephone conversation with P. Avant, Biologist, Greystone Consultants. *RE*: Bald eagle occurrence information within the Grass Creek (Worland) Resource Area]. Mr. Stephens is a wildlife biologist with the BLM, Worland, Wyoming.

Swenson, J.E., K.L. Alt, and R.L. Eng. 1986. Ecology of Bald Eagles in the Greater Yellowstone Ecosystem. Wildlife Manager 95:1-46.

U.S. Fish and Wildlife Service (USFWS). 1999. Proposed Rule To Remove the Bald Eagle in the Lower 48 States From the List of Endangered and Threatened Wildlife. Federal Register 64(128): 36453-36464.

U.S. Fish and Wildlife Service (USFWS). 1998. Endangered Species Consultation Handbook. Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act. U.S. Fish and Wildlife Service and National Marine Fisheries Service. March 1998.

U.S. Fish and Wildlife Service (USFWS). 1995. Final rule to reclassify the bald eagle from endangered to threatened in all of the lower 48 states. Federal Register 60(130): 35999-36010.

U.S. Fish and Wildlife Service (USFWS). 1986. Pacific Bald Eagle Recovery Plan. Portland, OR. 163p

U.S. Fish and Wildlife Service (USFWS). 1983. Northern states bald eagle recovery plan. Denver, Colorado. 76 pp.

U.S. Fish and Wildlife Service (USFWS). 1978. Determination of Certain Bald Eagle Populations as Endangered or Threatened.

Van Fleet, Laurie. 2002. Personal Communication [May 21, 2002 memorandum to Mr. Jeff Carroll, Biologist, Wyoming BLM *RE*: Bald eagle nest location data for Wyoming]. Ms. Van Fleet is a nongame biologist with the WGFD, Cheyenne, Wyoming.

Wyoming Game and Fish Department (WGFD). 2000. Threatened, Endangered, and Nongame Bird and Mammal Investigations. Annual Completion Report. A. Cerovski, edt.

Wyoming Game and Fish Department (WGFD) – Greater Yellowstone Bald Eagle Working Group. 1996. Greater Yellowstone Bald Eagle Management Plan: 1995 update. Greater Yellowstone Bald Eagle Working Group, Wyoming Game and Fish Department, Lander, Wyoming. 47 pp.