

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 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 LAUs 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 influence lynx and their habitats. Ten LAUs from the adjacent National Forest extend onto BLM land. In addition, 3 areas have been delineated as potential habitat not associated with a USFS LAU and are too small to be declared a BLM LAU (**Table 3**). The LAUs cover 33,125 acres on BLM land in this FO.

Habitat has been delineated for the Cody FO. Some of this habitat (1,756 acres) is not located within an LAU. This situation reflects the fact that the habitat was not of sufficient size to delineate an LAU, but can be recognized and protected as potential habitat on its own. There are 26,798 acres of BLM LAU habitat, comprising 81% of the total BLM LAU acreage (**Table 3, Map 3**).

There are 61 lynx records from the Cody FO in the WYNDD database (**Table 2** and **Appendix A**) (WYNDD 2003). The Wyoming Game and Fish Department conducted lynx surveys in conjunction with Shoshone National Forest during winter of 1995/1996. A fruitless trapping effort prompted a move to the Wyoming Range portion of the Bridger-Teton National Forest in western Wyoming for further surveys.

Existing Conservation Measures

The following section presents measures included in the Cody RMP that may directly or indirectly minimize impacts to the lynx:

(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).

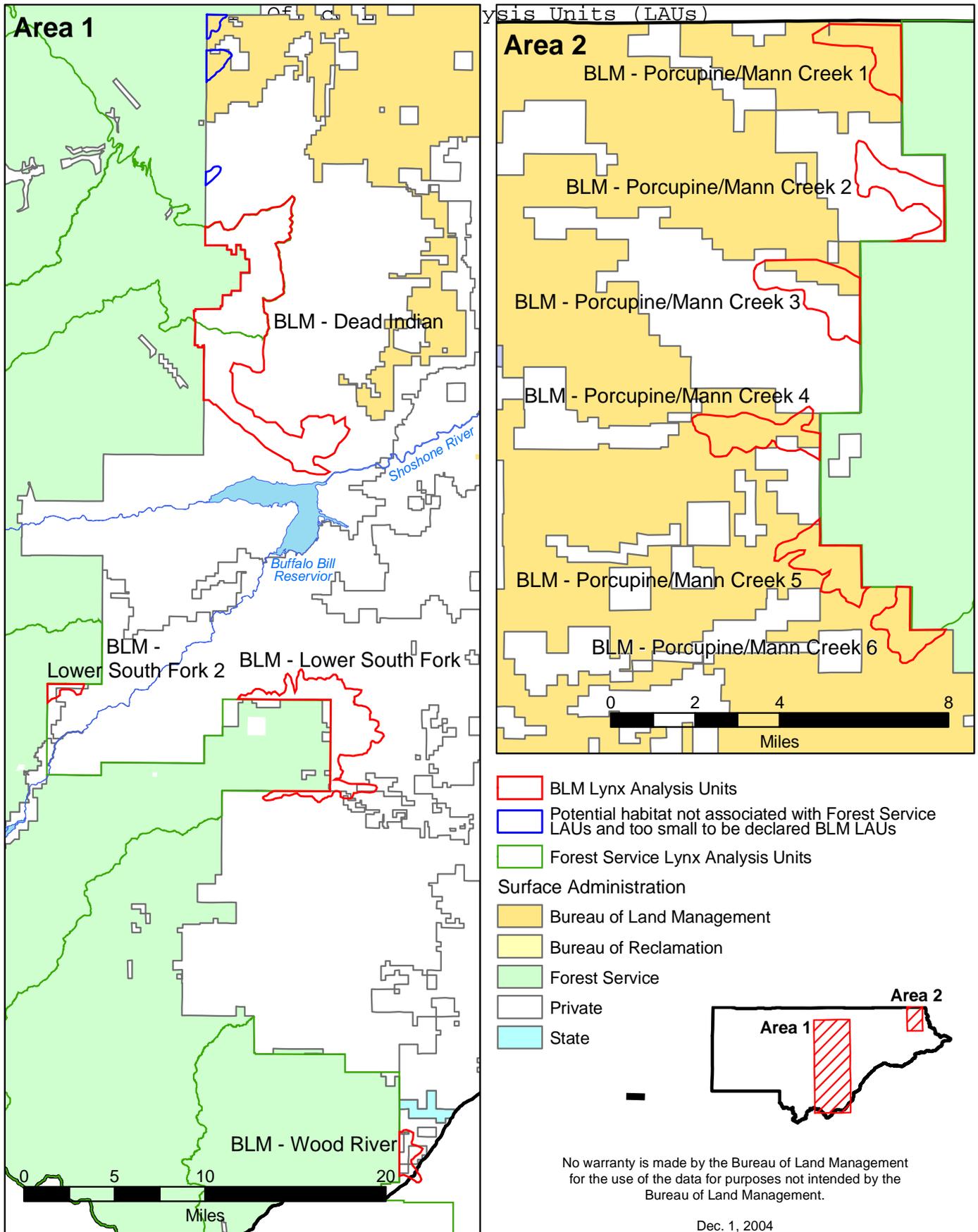
(b) “Vehicular use on BLM-administered public lands is designated as limited to designated roads and trails in the following areas – Essential and recovery habitat for threatened and endangered species” (BLM 1990a, p. 22).

(c) “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).

(d) “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).

(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

Map 3: Cody Field Office Lynx Analysis Units



No warranty is made by the Bureau of Land Management for the use of the data for purposes not intended by the Bureau of Land Management.

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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).

(f) “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. These activities are summarized in the Introduction, above. Refer to the Cody RMP for a complete explanation of each prescription.

Air Quality Management

Management Actions

No specific management actions are presented with this program. However, actions conducted under other resource programs, including fire or minerals management, will be conducted in a manner so as to avoid violation of the Wyoming and National ambient air quality standards. There are currently no air quality monitoring stations within any lynx habitat or LAUs in the Cody FO area.

Effects Analysis

Actions related to air quality management will result in no impacts to lynx behavior, denning habitat, or foraging habitat. The actions associated with air quality management are extremely small in scope, of short duration, and unlikely to occur in lynx habitat.

Determination

No monitoring stations are currently in any lynx LAUs on BLM lands in the Cody FO. Implementation of air quality management actions, as presented in the Cody RMP (1990a), will have **no effect** on the lynx, due to a lack of overlap of management activities and lynx habitat.

Areas of Critical Environmental Concern

Management Actions

There are five ACECs in the Cody FO: Brown/Howe Dinosaur, Carter Mountain, Five Springs Falls, Little Mountain, and Sheep Mountain Anticline. Exploration and development of leasable minerals is allowable in three of the ACECs; locatable minerals entry is allowable in one, and closed in two of the ACECs; and saleable minerals exploration and development is allowed in one and closed in one of the ACECs. Geophysical exploration is open in one and closed in one of the ACECs. All four are avoidance areas for right-of-way, and all allow continuation of livestock grazing. At Carter Mountain, surface-disturbing activities are prohibited on slopes greater than 7% to protect fragile tundra vegetation and soils.

Effects Analysis

This program analysis is for the creation and management of ACECs. The BLM- Lower South Fork LAU is within the Carter Mountain ACEC, BLM Porcupine/Mann Creek 6 LAU is in the Five Springs Falls ACEC, BLM Porcupine/Mann Creek 3 LAU is in the Little Mountain ACEC. No LAUs are found within the Brown/Howe Dinosaur ACEC, nor the Sheep Mountain Anticline ACEC. Management actions authorized within these ACECs, but not associated with ACEC management, will be analyzed under that specific activity. There are no specific impacts to lynx in the establishment of an ACEC and ACEC management is generally more restrictive in nature, protecting lynx and their habitats.

Determination

Implementation of ACEC management actions, as presented in the Cody RMP (1990a), is **not likely to adversely affect** the lynx, due to **beneficial effects**, because the act of designation of an ACEC has no disadvantageous impacts on lynx and ACEC management is generally more restrictive in nature, protecting lynx and their habitats.

Cultural and Paleontological Management

Management Actions

The management objective for cultural and paleontological resources is to protect, study, and expand the interpretation of these resources.

Effects Analysis

Actions associated with cultural resource and paleontological management are sparsely distributed across the landscape, are very small in physical extent, and involve very little disturbance to the area. Frequently, the goal is to leave the area intact with no disturbance. These activities are unlikely to occur in lynx habitat.

Determination

Implementation of cultural resource management actions, as presented in the Cody RMP (1990a), is **not likely to adversely affect** the lynx, due to **discountable effects**. This determination is based on the relatively small amount of suitable lynx habitat on BLM-administered lands, the protections in place for threatened and endangered species, and the low potential for cultural resource management actions to cause harassment, displacement, injury, and mortality of lynx.

Fire Management

Management Actions

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 FOs. 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.

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 lynx. Fire exclusion alters the natural mosaic of successional stages that promote the mixture of denning and foraging habitats on the landscape level. This limits the function of fire in perpetuating the vegetation conditions that are optimal for hares and lynx. Road construction associated with fire suppression can lead to increased access into higher altitude sites by generalist predators such as coyotes, wolves, and bobcats. These species can be predators and competitors with lynx.

Prescribed burning, construction of firelines, use of off-road vehicles, and use of hand tools and heavy equipment all have the potential for disturbing lynx and may negatively affect lynx behavior by causing them to abandon or avoid habitats. In addition, terrestrial habitats, including lynx foraging, denning, and linkage habitats, may be disturbed and altered through these activities. Prescribed fire may also benefit lynx by providing regenerative growth that, in time, will be favorable to snowshoe hares.

Conservation Measures in place (Section 4) include the assessment of habitat in suitable and unsuitable condition and the ensuing limitations on percentage of disturbance allowable to habitat, as specified in the LCAS (Ruediger et al. 2000). In addition, post-disturbance assessments are required prior to salvage to evaluate potential for lynx denning and foraging habitat, and the minimization of roads and fire lines as well as the requirement of revegetation after fire suppression activities. These measures will provide protection for lynx and their habitat.

Determination

Implementation of fire management actions, as presented in Cody RMP (1990), is **not likely to adversely affect** the lynx, due to **insignificant effects**. This determination is based on the protection provided by the Conservation Measures listed in Section 4, which follow the LCAS (Ruediger et al. 2000). In the event of a wildfire and immediate suppression is required in an LAU, as many conservation measures as possible will be applied that do not hinder safety or property protection. The USFWS will be contacted and emergency consultation will take place at the earliest possible time if LAUs or lynx habitat are affected/impacted.

Forestland Management

Management Actions

The forestland management objective is to improve forest resource and wildlife habitat values. Forestlands on Rattlesnake Mountain are in a restricted forest management area.

Effects Analysis

Forestland management actions occur in coniferous habitats, which are the same areas used by lynx. Timber management creates different patterns of forest stand types than the patchwork of early and late succession conditions resulting from fire and other finer-scale disturbance agents (Ruediger et al. 2000). This reduces habitat quality and quantity for lynx and their prey. Timber harvest may cause reduction of large woody debris, which may eliminate potential denning sites, reduce kitten survival, and reduce availability of snowshoe hares and red squirrels. Pre-commercial thinning has direct negative effect on hare habitat, at least in the short term. Clear cutting (including stand replacement), logging operations, road and landing construction, shearing, helicopter logging, and disease treatment sprays all have the

potential to disturb lynx by eliminating lynx and hare habitat and cover, or causing heavy disturbance in habitat used by lynx and their prey.

Conservation Measures in place (Section 4) include the assessment of habitat in suitable and unsuitable condition and the ensuing limitations on percentage of disturbance allowable to habitat as specified in the LCAS (Ruediger et al. 2000), as well as restrictions on pre-commercial thinning, salvage, harvest prescriptions in aspen stands, and improvement harvests, and the protection of linkages and connectivity. These measures will provide protection for lynx and their habitat.

Determination

Implementation of forest management actions, as presented in the Cody RMP (1990a), is **not likely to adversely affect** the lynx, due to **insignificant effects**. This determination is based on the Conservation Measures in place, which will protect lynx and their habitat from adverse impacts.

Geothermal Management

Management Actions

There are currently no geothermal leases in the Cody FO area and the potential for geothermal development activities in or near LAUs is extremely low.

Effects Analysis

Activities and potential effects to lynx that result from development of geothermal resources are not unique and are similar to potential effects from mineral and oil and gas development. However, all known geothermal activities are at a great distance from lynx and their habitat. It is not anticipated that there will be any impacts to lynx behavior or denning and foraging habitat.

Determination

Implementation of geothermal management actions, as presented in the Cody RMP (1990a), will have **no effect** on the lynx because these activities do not occur in or near lynx habitat.

Hazardous Materials, Hazardous Waste, and Other Hazards Management

Management Actions

The hazardous materials, hazardous waste, and other hazards management objective is to protect public health and safety on BLM-administered public lands and prevent waste contamination due to any BLM-authorized actions.

Effects Analysis

Emergency responses to hazardous materials, hazardous waste, and other hazards occur very infrequently, are limited in scale, and typically restricted to roadways or other areas of human activity, where lynx will likely have become accustomed to some degree of human disturbance.

Determination

Implementation of hazardous materials management actions, as presented in the Cody RMP (1990a), will have **no effect** on the lynx. This determination is based on the premise that no public vehicle access occurs within any lynx habitat or LAU, therefore, releases of hazardous materials and subsequent response actions that would harass or displace lynx and disturb or destroy suitable lynx and hare habitats would not occur.

Lands and Realty Management

Management Actions

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 given 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.

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 lynx behavior. Improved or new access to lands under new administration may result in positive effects to lynx habitats by securing these lands and managing them under BLM provisions.

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

Corridors are designated and managed to accommodate power lines, communication towers, pipelines, and roads. Roads can be a source of fragmentation of lynx habitat resulting in reduced mobility, and in mortality to lynx resulting from collisions. The degree of these impacts is correlated with traffic volume and speed, and road width. The construction of roads within rights of way may open new areas to human activity that may cause lynx to avoid or abandon otherwise occupied habitats.

Disposal or transfer of public lands with potential lynx habitat through Desert Land Entry, public sale, exchange, Wyoming indemnity selection, or Recreation and Public Purposes (R&PP) leases or patents may affect the lynx's ability to utilize suitable habitat and travel corridors linking desirable habitats. The overall goal of FO staff is to maintain lands that contain potential habitat for the lynx; however, large transfer of acreage due to land tenure actions may occur.

The issuance of ROWs and leases (utility transportation corridors), specifically ROWs for ditches, canals, and roads may affect the lynx if the associated construction is within the vicinity of travel corridors. This

may cause short-term behavioral avoidance of these areas by the lynx due to the presence of human activity. The issuance of temporary use permits, and construction activities associated with fencing of revegetation sites require an analysis to determine if they are present in potential habitat areas and travel corridors and would have similar short-term avoidance impacts.

The acquisition of access easements as well as Rights-of-way/leases include powerlines, communication sites, pipelines, ditches and canals, roads (includes stream crossings), well pads, reservoirs, buried telephone and fiber optic lines, wind power generation farms and facilities, compressor stations and other facilities, temporary use permits, and fence re-vegetation sites and designate, cancel, or change stock trail driveways activities may cause short-term behavioral avoidance of these areas during construction/maintenance operations and would have an insignificant affect on the lynx. The establishment of withdrawals, acquisition of conservation easements, and road closures/rehabilitation would close areas from certain activities that could have a negative affect on the lynx; closing areas creates undisturbed habitat for lynx.

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

Conservation Measures in place (Section 4) that relate to lands and realty management include the assessment of habitat in suitable and unsuitable condition and the ensuing limitations on percentage of disturbance allowable to habitat as specified in the LCAS (Ruediger et al. 2000), as well as the evaluation of effects on key linkage areas in situations of proposed land exchanges, land sales, and special use permits.

Determination

Implementation of land resource management actions, as provided in the Cody RMP (1990a) is **not likely to adversely affect** the lynx, due to **insignificant effects**. This determination is based on the Conservation Measures in place that will preclude adverse effects to the lynx or its habitat.

Access Management

Management Action

The BLM access policy in Wyoming is to acquire permanent exclusive easements (BLM controls and includes rights for the public) over mainline roads on the BLM transportation plan. A BLM mainline road is considered the principal access into larger blocks of BLM-administered public lands or into tracts of BLM-administered lands with high resource values. The BLM will seek to acquire administrative access along Trail Creek to Rattlesnake Mountain, which includes BLM-Dead Indian LAU. Priority emphasis will be placed on acquisition of public access to the Cedar Mountain and Little Mountain areas which includes the BLM Porcupine/Mann Creek 3 LAU on Little Mountain. Existing public access to BLM-administered public lands in the Carter Mountain area will be continued, with BLM- Lower South Fork LAU on Carter Mountain.

Effects Analysis

Development of new and expansion of existing access to lands administered by BLM may detrimentally influence lynx behavior or alter suitable denning, travel, or foraging habitats. Negotiations of new easements are considered surface disturbing activities subject to NEPA and may receive protective measures as outlined in the BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities. The restriction that no activities that negatively impact threatened or endangered species would be

allowed applies to easements also. There are more skilled map readers or users of GPS since the RMP was signed which has enabled recreation users to legally access portions of these lands by foot or horseback. Adjacent U.S. Forest Service and some private landowners provide limited access.

Determination

Implementation of access management actions, as presented in the Cody RMP (1990a), is **not likely to adversely affect** the lynx, due to **insignificant effects**. This determination is based on the minimal amount of suitable lynx habitat on BLM-administered lands, the protections in place for threatened and endangered species, and the low potential for easement acquisitions to cause harassment, displacement, injury, and mortality of lynx.

Livestock Grazing Management

Management Actions

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.

The Guidelines for Livestock Grazing Management on BLM land in Wyoming apply.

Effects Analysis

Although the RMP and the Guidelines for Livestock Grazing Management on BLM land provide some regulatory guidance for protecting the riparian areas used by snowshoe hares for foraging and by lynx for movement corridors, impacts to these areas do occur. Domestic livestock grazing in riparian areas can alter the structure and composition of aspen and riparian shrubs that hares depend upon. In areas with high elk numbers, this loss of vegetation can be further exacerbated. Grazing also may lead to other adverse environmental effects, including increased soil erosion, degradation of stream bank conditions, introduction of noxious weeds, and the reduction of viable aspen and riparian shrub recruitment (Chaney et al. 1990; Kaufman and Krueger 1984; Menke et al. 1996). Grazing also causes a reduction in fine fuels, thus affecting fire regimes and subsequent regeneration.

In areas within the elevational range of lynx, grazing in shrub-steppe communities also may have impacts on lynx. This occurs when cattle graze on the intermixed grassland understory, which, especially with spring grazing, encourages growth of the sage. Mid- to late seral stages and a lack of heavy grazing have been suggested as the goal in managing shrub steplands for lynx (Ruediger et al. 2000), but the availability of a well-developed understory of grasses is also important. Sage grouse and jackrabbits, both alternate prey species for lynx, prefer the edges created by interspersed grassland patches within the shrub steppe rather than solid sagebrush. Lynx will use these sagebrush areas for foraging when prey are abundant there, and will make exploratory and dispersal movements outside of their forested habitats onto shrub-steppe communities, during which they would require alternate prey such as sage grouse, jackrabbits, and ground squirrels.

Conservation Measures in place (Section 4) for livestock grazing management include the assessment of habitat in suitable and unsuitable condition and the ensuing limitations on percentage of disturbance allowable to habitat as specified in the LCAS (Ruediger et al. 2000), as well as: restrictions on livestock in openings created by fire or timber harvest; evaluation and careful management of grazing in aspen stands, shrub-steppe communities, and riparian areas; restrictions on over-snow access; requirement that predator control activities be conducted by Wildlife Services through a formal Section 7 consultation; and

that weed assessments and control be conducted so as to optimize snowshoe hare habitat in high-elevation riparian areas.

Determination

Implementation of livestock grazing management actions, as provided in the Cody RMP (1990a) is **not likely to adversely affect** the lynx, due to **insignificant effects**. This determination is based on the Conservation Measures in place that will preclude adverse effects to the lynx or its habitat.

Minerals Management

Management Action

Surface-disturbing activities associated with all types of mineral exploration and development and geophysical exploration are subject to application of the BLM Mitigation Guidelines for Surface Disturbing and Disruptive 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 fields and to allow for orderly development of new fields. Restrictions or requirements that are no longer applicable, insufficient, or too restrictive may be changed only with the use of conservation measures or Conditions of Approval in authorizing Applications for Approval, Plans of Operation, or Plans of Development.

Effects Analysis

Human activity associated with oil and gas and mineral development can negatively impact lynx behavior by causing them to avoid or abandon these areas. Construction of roads, pads, or access by OHVs, and other facilities associated with development of mineral resources will alter or destroy existing terrestrial habitats that may be suitable lynx foraging habitats or linkages between suitable habitats, such as in forested or shrub-steppe habitats. Increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with lynx and increased intrusion by non-specialized competing predators such as bobcat, coyote, and wolf. Additional impacts are a consequence of increased access into habitat, increased fragmentation, loss of snowshoe hare and red squirrel habitat, associated noise and human activity, associated hazards (such as chemical toxins), and temporal and spatial project considerations.

Conservation Measures in place (Section 4) include the assessment of habitat in suitable and unsuitable condition and the ensuing limitations on percentage of disturbance allowable to habitat as specified in the

LCAS (Ruediger et al. 2000), as well as stipulations and conditions of approval for minerals development that place limits on timing and surface use and occupancy that are developed at the leasing and NOS/APD stages, and the minimization of snow compaction when authorizing and monitoring developments.

Determination

Implementation of geology and mineral management actions, as presented in the Cody RMP (1990a), is **not likely to adversely affect** the lynx, due to **insignificant effects**. This determination is based on the minimal amount of suitable lynx habitat on BLM-administered lands; the implementation of Conservation Measures (1-6 under “All Programs”, and 1-2 under “Energy Development”); the protections in place for threatened and endangered species; and the low potential for existing and current mineral and energy development to cause harassment, displacement, injury, and mortality of lynx due to mineral activities.

Off-Road Vehicle Management

Management Action

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 Motocross 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.

Effects Analysis

The RMP restricts ORV use to existing roads and trails. However, the only existing road/trail in an LAU cannot be accessed by the public, and the access from Shoshone National Forest has natural barriers. Thus there are no impacts to lynx, their habitat, or their prey as a consequence of this management action. The Conservation Measures in place for all activities include the assessment of habitat in suitable and unsuitable condition and the ensuing limitations on percentage of disturbance allowable to habitat as specified in the LCAS (Ruediger et al. 2000).

Determination

Implementation of ORV management actions, as presented in the Cody RMP (1990a), is **not likely to adversely affect** the lynx, due to **insignificant effects**. This determination is based on the lack of potential for disturbance to lynx or their prey due to lack of access, and the Conservation Measures in place that will preclude adverse effects to lynx or their habitat.

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 remainder of the 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.

Effects Analysis

There is no motorized access for members of the public to the forested areas within lynx habitat and LAUs in this FO. Access is generally very difficult and is by foot or horseback, so consequently is very minimal with very little impact to lynx from recreation management actions. The Conservation Measures in place for recreation management include the assessment of habitat in suitable and unsuitable condition and the ensuing limitations on percentage of disturbance allowable to habitat as specified in the LCAS (Ruediger et al. 2000), the no net increase in over-the-snow routes and play areas in LAUs, restriction on actions that degrade or compromise landscape connectivity or linkage areas, requirement that trails, roads, and lift termini be designed to direct use away from diurnal security habitat, and the evaluation of permits that promote snow compacting activities.

Determination

Implementation of recreation resource management actions, as presented in the Cody RMP (1990a), is **not likely to adversely affect** the lynx, due to **discountable effects**. This determination is based on the fact that this activity does not occur in lynx habitat due to lack of access, and the Conservation Measures in place that will preclude adverse effects to lynx or their habitat.

Visual Resource Management

Management Actions

The objective of visual resource management (VRM) is to maintain or improve scenic values and visual quality throughout the planning area.

Effects Analysis

Actions associated with VRM will not directly impact lynx behavior or habitats. Potentially, a request for movement of a structure or project due to VRM classification out of a higher classification area to a lesser classified area might move the project into lynx habitat or LAU. Impacts to lynx by such moves would be precluded by the lynx conservation measures. 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 lynx or their prey.

Determination

Implementation of visual management actions, as presented in the Cody RMP (1990a), is **not likely to**

adversely affect the lynx, due to possible **beneficial effects**. This determination is based on the fact that implementation of the visual resources management involves no anticipated disturbance to lynx habitat.

Watershed Management

Management Action

A maintenance priority is placed on approximately 700 acres of existing spreader dikes and 10 existing retention dams in the FO. Other watershed projects will be maintained as necessary. 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 portions of the Shoshone and Bighorn rivers:

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. However, sagebrush control is allowed within 500 ft, unless site-specific environmental analysis indicates otherwise.

Effects Analysis

Actions associated with watershed management will not negatively impact lynx behavior or their denning or foraging habitats. The activities associated with this management action are infrequent, small in scale, and none are proposed to occur in lynx habitat or LAUs. The watershed improvement practices along the Shoshone and Bighorn rivers are at great distances from the LAUs in this FO. Management actions might also benefit lynx because they are likely to improve riparian vegetation and habitat for lynx and their prey if a lynx were to travel outside normal, defined habitat or LAUs .

Determination

Implementation of soil and water resource management actions, as presented in the Cody RMP (1990a), will have **no effect** on the lynx. This determination is based on the fact that watershed actions are not planned to occur in lynx habitat.

Wild and Scenic River Management

Management Action

The objectives of wild and scenic rivers management for public lands administered by the BLM that meet the wild and scenic rivers suitability factors are to maintain or enhance their outstandingly remarkable values and wild and scenic rivers (WSR) classifications until Congress considers them for possible designation.

Effects Analysis

Wild and Scenic Rivers Management activities of the BLM include studying segments of the river for potential classification by Congress. The suitable determination is based on the uniqueness of the diverse land resources and their regional and national significance, making them worthy of any future consideration for addition to the WSR system. The designation of WSR status is simply a designation, and tempers or stipulates from a WSR resource viewpoint, specific protections or management of other BLM authorized actions. WSR classifications, in and of themselves, do not place on-the-ground projects or ground disturbing activities. Generally, WSR status is a beneficial impact on wildlife and plant species. One WSR segment, Porcupine Creek, flows along the northern boundary of the BLM-Porcupine/Mann Creek 3 LAU. The WSR designation will place protections to maintain and possibly enhance this creek segment, providing additional protections for lynx and their habitats and their prey base. Often lynx den in areas along waterways as the vegetation is generally more dense and downed spruce trees along these stretches provide denning habitat.

Determination

Implementation of WSR management activities, as presented in the Cody RMP (1990a), is **not likely to adversely affect** the lynx, due to possible **beneficial effects**. This determination is based on the premise that lynx habitat will be further protected by WSR designation from activities authorized by the BLM.

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.

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. These activities occur in areas distant from the LAUs and it is unlikely that lynx would travel through the basin between the Shoshone and Bighorn National Forests. These actions are not expected to detrimentally impact Canada lynx behavior or foraging or denning habitats.

Determination

Implementation of wild horse management, as presented in the Cody RMP (1990a), will have **no effect** on the lynx. This determination is based on the fact that no lynx habitat or LAUs occur within the McCullough Peaks WHHMA. Lynx would be extremely unlikely to travel through the lower-elevation basin that encompasses the WHHMA as it is outside of normal habitat or LAUs and therefore be adversely affected by actions associated with management of wild horses.

Wilderness Management

Management Action

Wilderness Study Areas (WSAs) on public lands are single-use resources managed in accordance with decisions issued by the U.S. Congress. The BLM manages activities to ensure that proposed actions are consistent with the land use plan in effect for the area.

Effects Analysis

The absence of roads, total aerial extent, naturalness, solitude, or a primitive and unconfined type of recreation, and other ecological, geological, educational, scenic, or historical features may be considered wilderness values. Activities associated with this program may include inventories to identify wilderness areas, public involvement with the wilderness study process, authorization of mining claims under unique circumstances, or evaluations of proposed actions to determine potential impacts to known or potential wilderness values.

All WSAs are managed under the Interim Management Policy (IMP) until Congress issues management guidelines. These actions are not expected to detrimentally impact Canada lynx behavior or foraging or denning habitats and actually likely have beneficial effects for lynx.

Determination

Implementation of WSA management activities, as presented in the Cody RMP (1990a), will have **no effect** on the lynx. This determination is based on the fact that no lynx habitat or LAUs occur within any BLM WSA within the planning area.

Wildlife and Fish Management

Management Action

Vegetative manipulations and application of the BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities will be used to maintain or improve uncommon and important wildlife habitats such as wetlands, mountain shrublands, shrub steplands, 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 analysis. When practical, BLM will consult with WGFD in applying impact minimization measures for wildlife needs and before waiving, allowing exceptions to, or modifying wildlife-related land use restrictions and impact minimization measures. 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.

These projects are designed to improve habitat for species such as the lynx and northern goshawk, such as conifer removal in aspen stands to reduce encroachment. In other cases it may be a matter of responding to an action undertaken by a different party, such as occurred on the flank of Carter Mountain after a salvage sale. BLM fenced some areas to protect aspen suckers from elk foraging in the cleared areas.

Effects Analysis

The implementation of management actions associated with wildlife habitat management will likely have positive effects by maintaining or improving existing habitat conditions that will benefit lynx and their prey. Many of the actions are, in fact, directed at lynx habitat improvement. There is the possibility that in some cases, lynx would avoid areas where activities would create a temporary disturbance.

Determination

Implementation of wildlife habitat management actions, as presented in the Cody RMP (1990a), is **not likely to adversely affect** the lynx due to **insignificant effects**. Although there is the possibility of some occasional and small degree of disturbance, this determination is based on the potential for these actions to benefit the lynx by maintaining or enhancing habitats used by snowshoe hares, sage grouse, and jackrabbits in shrub steplands, mountain shrublands, Douglas fir, Engelmann spruce-subalpine fir, and aspen-conifer forestlands.

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
ACEC	Not likely to adversely affect, due to beneficial effects
Air Quality	No effect
Cultural and Paleontological	Not likely to adversely affect, due to discountable effects
Fire	Not likely to adversely affect, due to insignificant effects
Forestland	Not likely to adversely affect, due to insignificant effects
Geothermal	No effect
Hazardous Materials	No effect
Lands and Realty	Not likely to adversely affect, due to insignificant effects
Livestock Grazing	Not likely to adversely affect, due to insignificant effects
Access	Not likely to adversely affect, due to insignificant effects
Minerals	Not likely to adversely affect, due to insignificant effects
Off-Road Vehicles	Not likely to adversely affect, due to insignificant effects
Recreation	Not likely to adversely affect, due to discountable effects
Visual Resources	Not likely to adversely affect, due to beneficial effects
Watershed	No effect
Wild and Scenic Rivers	Not likely to adversely affect, due to beneficial effects
Wild Horses	No effect
Wilderness	No effect
Wildlife and Fish	Not likely to adversely affect, due to insignificant effects

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

Some of these possible projects are situated near LAUs. There are LAUs on the western side of the Bighorn Mountains, where oil field exploration, and bentonite and gypsum mining may occur. There are 2 LAUs just west of Clark, where seismic exploration may occur. Certain components of these projects, if completed, could directly or indirectly affect lynx or their habitats. In addition to the cumulative impacts resulting from the BLM activities described previously, implementation of the Cody RMP could add further impacts to the lynx that may result from current non-federal actions.