

## **1.0 PURPOSE AND NEED FOR ACTION**

The purpose of the Resource Management Plan Amendment (RMPA)/Environmental Assessment (EA) is to provide guidance in the management of the approximately 100,655 acres of the Fortification Creek Planning Area (FCPA) in regard to special resource values in light of future coal bed natural gas (CBNG) development. Of particular importance is consideration of a proposed Area of Critical Environmental Concern (ACEC), which had been deferred from the Powder River Basin (PRB) Oil and Gas RMPA/Environmental Impact Statement (EIS; (PRB O&G FEIS) in 2003 (BLM 2003a). Other critical issues that this RMPA will address are wildlife, cultural, paleontological, and visual resources and how to best manage CBNG development in a region with erosive soils and steep slopes. Lastly, given that the Bureau of Land Management (BLM) has received CBNG plans of development (PODs) for lands that have been leased within the FCPA; the time is ripe to review existing management decisions in light of new information. Under the Federal Land Policy and Management Act (FLPMA) and National Environmental Policy Act (NEPA), BLM is required to consider impacts to non-BLM lands and resources that would occur as a result of its actions. An RMPA, and an EA prepared under NEPA, are needed to consider the proposed ACEC designation and to consider possible new or changed stipulations or other protective measures that are not currently authorized in the existing land use plan.

Initially, the BLM considered a proposed land exchange with the State of Wyoming for land within a Wilderness Study Area (WSA) in the FCPA. This proposal has since been withdrawn and was not analyzed in this RMPA/EA.

Since the BLM approved the original Resource Management Plan (RMP), Record of Decision, Buffalo Resource Area (BRA) (BLM 1985a) in 1985, CBNG has replaced conventional gas development as the dominant play throughout the PRB. BLM estimates that CBNG development could result in 726 or more wells compared to approximately 100 wells for conventional gas development. CBNG development requires electricity to operate the wells, gas metering stations, compression facilities and other infrastructure, as well as for produced water treatment and disposal. Power is transported to the facilities by overhead transmission lines. Power lines are buried from central points to individual wells, approximately six wells and 2 miles of buried power per drop point.

The Buffalo Field Office (BFO) RMP (BLM 2001a) designated the FCPA as Visual Resource Management (VRM) Class III, which allows changes to the landscape as long as they do not become the predominant element in the landscape. The BLM prohibited overhead power lines on Federal surface land within the FCPA in the BRA RMP. Typically, overhead power is allowed in VRM Class III. The overhead power line prohibition will be revisited in the RMPA/EA.

Since completing the PRB O&G FEIS (BLM 2003a) and the original BRA RMP, BLM and the Wyoming Game and Fish Department (WGFD) have gathered additional information regarding the population levels and crucial winter and parturition (calving) ranges of an isolated elk herd within the FCPA. A recent study (BLM 2007a) indicates that elk distribution has shifted since the last major study was conducted on the herd in the early 1990s. This information will be used to determine the impact of CBNG development on the herd and to develop protective measures to minimize future impacts to the herd based on the latest data. BLM has also recently

completed an inventory of paleontological resources within the FCPA. This inventory will assist in the analysis and help minimize impacts to fossil resources from CBNG development.

## **1.1 Fortification Creek Planning Area**

The FCPA is located in the PRB in northeastern Wyoming. The location of the FCPA is shown on Figure 1-1. As shown on Figure 1-2, the FCPA is generally bounded on the northeast by Wild Horse Creek, on the west by the Powder River, and on the south by Fortification and Montgomery Roads.

Total acreage within the boundaries of the FCPA is 100,655 acres. The plan will address the management of 67,165 acres of Federal mineral estate managed by the BLM within Sheridan, Johnson, and Campbell counties. Total Federal mineral estate in the FCPA is 93,159 acres; however because the WSA will not be developed Federal mineral estate in the WSA was not included in the analysis. Also Federal coal mineral estate was not included in the analysis. There are approximately 42,755 acres of BLM surface land, 52,576 acres of private surface land and 5,324 acres of State of Wyoming surface and subsurface land in the area. While the FCPA encompasses private and State, as well as Federal lands, the BLM will only make decisions on lands and resources under its jurisdiction. However, under the Federal Land Policy and Management Act (FLPMA) and NEPA, BLM is required to consider impacts to non-BLM lands and resources that would occur as a result of its actions. Land ownership is shown on Figure 1-2.

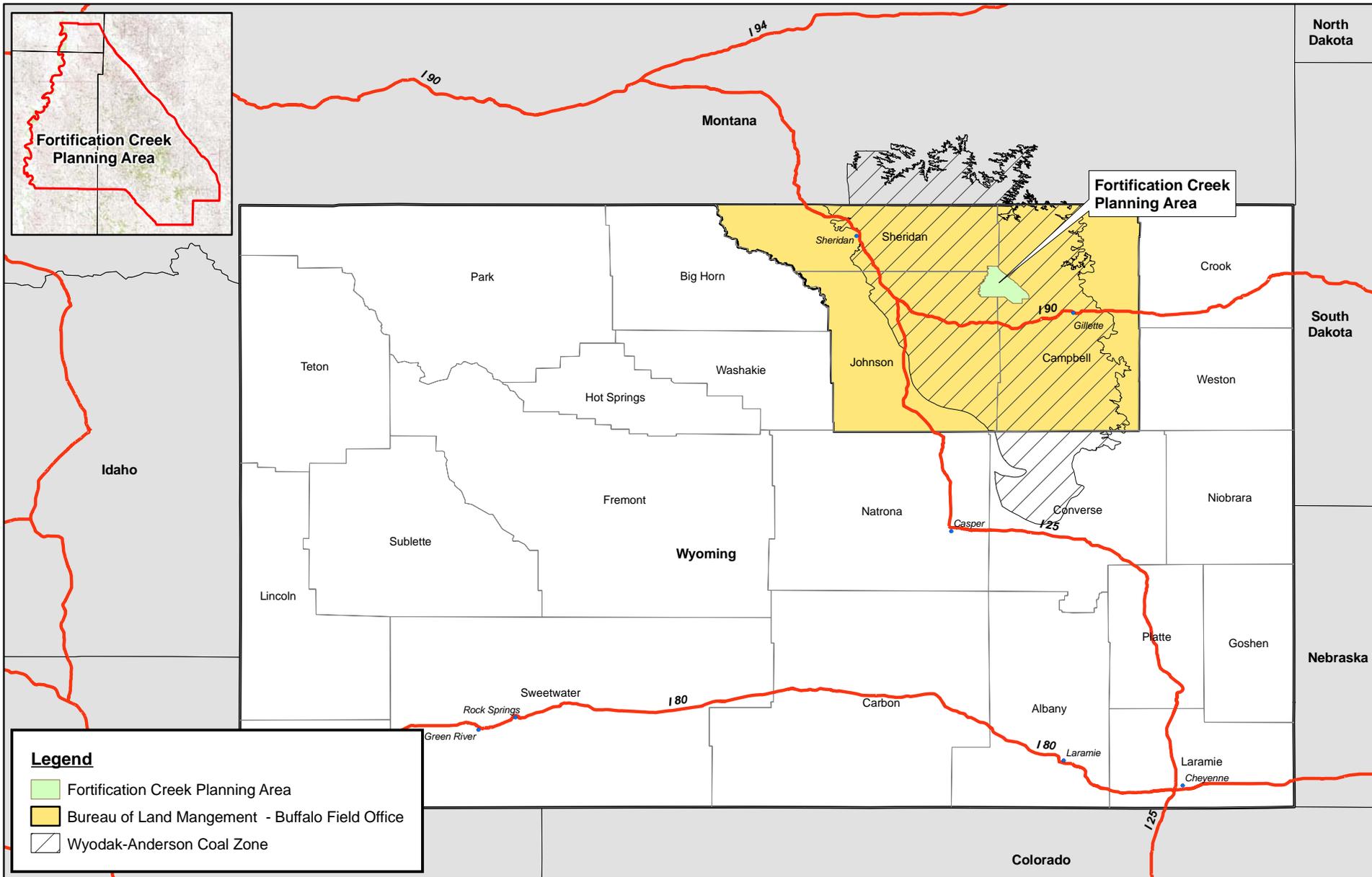
With generally rugged topography, elevations in the FCPA range from approximately 3,700 feet along the Powder River on the western boundary to approximately 4,800 feet on ridges. The area is covered by shrublands, with ridges supporting juniper woodlands. This diverse landscape is home to an isolated elk herd as well as a variety of other wildlife.

The FCPA is used as a hunting area for local and non-local hunters. Effects of human activity are visible throughout the landscape with gas field developments on the south and east, and private ranches surrounding the FCPA.

## **1.2 Overview of the Plan**

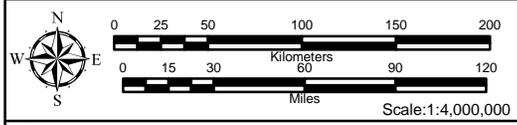
This Draft RMPA/EA has been organized and formatted consistently with applicable NEPA and Council on Environmental Quality (CEQ) guidelines and the BLM Land Use Planning Handbook. The goal of this document is to provide the reader with a clear understanding of the alternatives, environmental resources that may be affected, potential environmental consequences, and the environmental review and evaluation process. The following are the chapter titles for this document and brief descriptions of the chapter contents:

- Chapter 1 – Purpose and Need: This chapter offers a brief history and background of the FCPA and describes the purpose and need for the action, the scoping process and issues, planning criteria, the planning process, related plans and relevant policy, and the overall vision of the Draft RMPA/EA.
- Chapter 2 – Alternatives: This chapter describes potential management approaches, or “alternatives” and discusses the alternative development process. It describes three alternatives that are evaluated in detail in this Draft RMPA/EA, including the No Action Alternative and two action alternatives that provide a range of alternate management approaches to address the planning issues.



**Legend**

- Fortification Creek Planning Area
- Bureau of Land Mangement - Buffalo Field Office
- Wyodak-Anderson Coal Zone



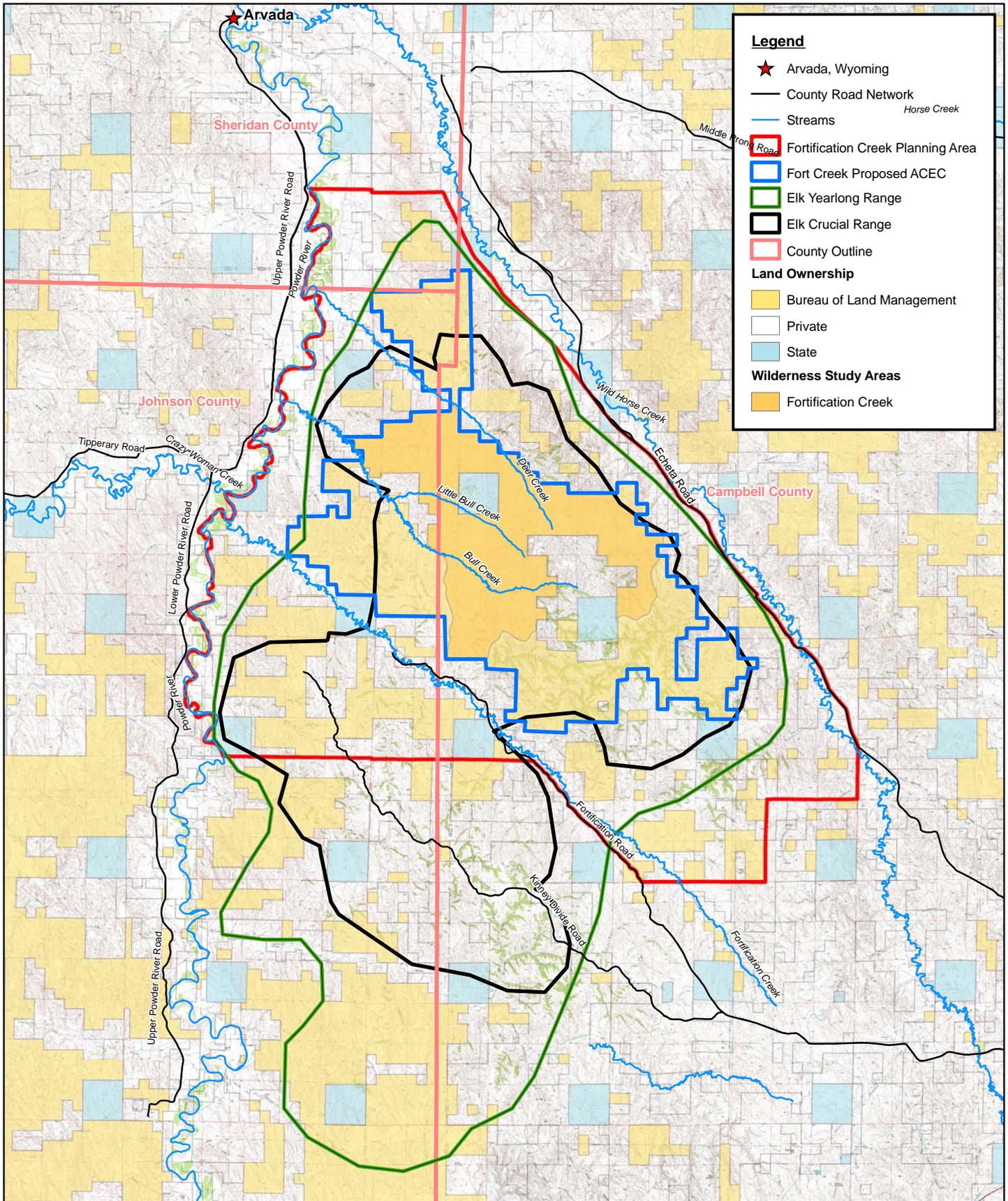
**Resource Management Plan  
Amendment/Environmental Assessment  
Fortification Creek Planning Area**

Campbell, Johnson, and Sheridan Counties, Wyoming

**Figure 1-1  
General Location Map**

Map Reference:		
Date: 12/19/2007	GIS Analyst: avh	Project ID:





**Legend**

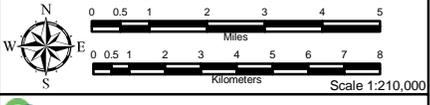
- ★ Arvada, Wyoming
- County Road Network
- Streams
- Horse Creek
- Fortification Creek Planning Area
- Fort Creek Proposed ACEC
- Elk Yearlong Range
- Elk Crucial Range
- County Outline

**Land Ownership**

- Bureau of Land Management
- Private
- State

**Wilderness Study Areas**

- Fortification Creek



**Resource Management Plan  
Amendment/Environmental Assessment  
Fortification Creek Planning Area**

Campbell, Johnson, and Sheridan Counties, Wyoming

**Figure 1-2  
Fortification Creek Planning Area**

Map Reference:		
Date: 11/28/2007	GIS: lavh	Project ID:

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- Chapter 3 – Affected Environment: This chapter describes the current physical, biological, human, and land use environments of the FCPA. The description provides a baseline against which the impacts of the alternatives may be compared. The baseline described in this chapter represents environmental and social conditions and trends in the FCPA at the time this document was being prepared.
- Chapter 4 – Environmental Consequences: This chapter describes how, and to what extent, baseline conditions would be altered by the alternatives. These changes are measured in terms of adverse and beneficial impacts, and direct, indirect, and cumulative impacts.
- Chapter 5 – Consultation and Coordination: This chapter describes how the BLM interacted with cooperators and stakeholders.
- Chapter 6 – References: This chapter provides full citation information for all references, published and unpublished, cited in this document, as well as personal contacts used in developing this Draft RMPA/EA.

Appendices A through E provide supporting information for the chapters described above. The appendices offer more detailed information, which some readers may find helpful when reviewing the main text of the document.

Potential decisions and/or other discussions contained in this document may refer directly to maps and figures. In fact, many potential decisions themselves are “map based.” Therefore, the reader must rely on the text and maps taken together to fully understand the potential decisions described for each alternative.

### **1.3 Scoping and Issues**

As required by NEPA, the BLM BFO completed a process to determine the relevant issues that will guide the scope of the environmental analysis and alternatives to be analyzed in the FCPA RMPA/EA. This process, called scoping, is conducted in the early phases of the planning process, and is used to determine the breadth and depth of the RMPA/EA. The BFO used comments received during the scoping period to determine:

- Significant issues to be addressed;
- Depth of the analysis;
- Alternatives to be assessed; and
- Potential environmental and socioeconomic effects of the various alternatives.

The formal scoping period began on August 20, 2007, with the publication of the Notice of Intent (NOI) in the Federal Register (FR). Written comments on the RMPA/EA were accepted through November 30, 2007.

The vast majority of the comment letters received during scoping were from members of the Natural Resources Defense Council (NRDC), who were supportive of management objectives to protect sensitive resources in the FCPA, the land exchange for the State parcel surrounded by the WSA, underground power lines, and required phased development with proven reclamation.

#### **1.3.1. Issues Addressed**

Based on BLM’s management concerns, and input from cooperating agencies, other Federal, State, and local agencies, and the public, the RMPA/EA will address the following issues:

- Wildlife and wildlife habitat (particularly the elk herd);
- Visual resource management;
- Steep slopes and sensitive soils;
- Phased development;
- CBNG produced water management; and
- Consideration of designating a portion of the FCPA as an ACEC.

#### **1.4 Planning Criteria**

Planning criteria are the constraints or ground rules that are developed to guide and direct the planning revision of the BFO RMP. Planning criteria are based on laws and regulations; guidance provided by the BLM Wyoming State Director; results of consultation and coordination with the public, other agencies, and governmental entities, and Indian tribes; analysis of information pertinent to the FCPA; public input; and professional judgment. Additional planning criteria may be identified as the planning process progresses.

Planning criteria proposed for the RMPA/EA include the following:

- The RMPA/EA will comply with FLPMA and all other applicable laws, regulations, and policies. The land use plan amendment process will be governed by the planning regulations in 43 Code of Federal Regulations (CFR) 1610 and the BLM Land Use Planning Handbook H-1601-1.
- The proposed action and alternatives will be analyzed in accordance with NEPA.
- Lands affected by the RMPA/EA will be public lands and mineral estate managed by BLM. No decisions will be made relative to non-BLM administered lands or non-Federal minerals.
- Broad-based public participation will be an integral part of the planning process.
- The RMPA/EA will recognize all valid existing rights.
- The planning team will work cooperatively and collaboratively with cooperating agencies and all other interested groups, agencies, and individuals. The RMPA/EA will be consistent with existing non-Federal plans and policies, provided the decisions in the existing plans are consistent with the purposes, policies, and programs of Federal law, and regulations applicable to public lands.
- The potentially affected WSA will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration.
- The planning process will involve American Indian tribal governments and will provide strategies for the protection of recognized traditional uses.
- The RMPA/EA may include adaptive environmental management (AEM) principles and protocols to deal with unknown future issues and outcomes.

## 1.5 Planning Process

In general, the BLM follows a nine-step land use planning process, as outlined below. Steps 1 through 7 have been completed for the current process. The results of these steps have been incorporated throughout this Draft RMPA/EA, and are as follows:

- Step 1 – Identify Planning Issues: Issues and concerns are identified through a scoping process that includes the public, Native American tribes, other Federal agencies, and State and local governments.
- Step 2 – Develop Planning Criteria: Planning criteria are created to ensure that decisions are made to address the issues pertinent to the planning effort. Planning criteria are derived from a variety of sources, including applicable laws and regulations, existing management plans, coordination with other agencies’ programs, and the results of public and agency scoping. As planning proceeds, planning criteria may be updated or changed.
- Step 3 – Collect Data and Information: Based on the planning criteria, data and information for the resources in the FCPA are collected.
- Step 4 – Analyze the Management Situation: The collected data and information are assembled into the Analysis of the Management Situation (AMS) (BLM 2008a).
- Step 5 – Formulate Alternatives: A range of reasonable management alternatives that address issues identified during scoping are developed.
- Step 6 – Assess Alternatives: The environmental effects of each alternative are estimated and analyzed.
- Step 7 – Select Preferred Alternative: The alternative that best resolves planning issues is identified as the Preferred Alternative. The Preferred Alternative may be a combination of the analyzed alternatives or an entirely new alternative. In this case, the BLM has not identified a preferred alternative.
- Step 8 – Select Resource Management Plan: A Draft RMPA/EA is issued and made available to the public for a review period of 60 calendar days. This document represents this step in the process. During the public review period, the BLM will hold additional public meetings to further explain the Draft RMPA/EA, address public questions, and accept comments in writing. After comments to the draft document have been received and analyzed, the Draft RMPA/EA will be revised and modified, as necessary, and the Proposed RMPA/Final EA will be published and made available for public review for 30 calendar days. A Finding of No Significant Impact (FONSI) will be signed to approve the RMPA/EA.
- Step 9 – Implement and Monitor: Upon approval of the FONSI, land use decisions outlined in the Approved RMPA would be effective immediately and would require no additional planning or NEPA analysis.

Consistent with BLM Land Use Planning Handbook H-1601-1, the BLM will monitor plan implementation and effectiveness, and will report annually, or as the BLM determines is appropriate, on:

- The management actions undertaken;
- The management actions remaining to be undertaken; and

- The effectiveness of those actions toward meeting goals and objectives.

Monitoring strategies would be developed that identify indicators of change, acceptable thresholds, methodologies, protocols, and timeframes that would be used to evaluate and determine whether desired outcomes are being achieved. A draft elk monitoring plan has been included as Appendix A.

The Proposed RMPA will be periodically evaluated, at least every five years as documented in an evaluation schedule. Special or unscheduled evaluations may also be required to review unexpected management actions or significant changes that have the potential to trigger an amendment or revision.

### 1.5.1. Relationship to BLM Policies, Plans, and Programs

The BLM has three principal levels of land use planning decisions: (1) the RMP or RMPA level, (2) the activity level, and (3) the site-specific level. This Draft RMPA/EA focuses on establishing resource objectives and direction while providing some activity-level guidance and site-specific decisions. It builds on the history of natural resource management planning in the vicinity of the FCPA.

Table 1-1 highlights the major BLM plans, policies, and resource-specific regulations. These plans and regulations are incorporated into this the Draft RMPA/EA by reference, but are not included herein. In addition, some of these plans, as well as other related plans, are currently being updated. All of the new and revised plans and regulations will be included in the Administrative Record (AR) for this project and made available upon request.

<b>Table 1-1 Plans, Policies, and Regulations</b>
<b>General Plans, Policies, and Regulations</b>
National Environmental Policy Act
Federal Land Policy and Management Act
BLM Planning Regulations 40 CFR 1600
BLM Land Use Planning Handbook, H-1601-1, updated March 11, 2005 (BLM 2005a)
BLM National Environmental Policy Act Handbook H-1790-1 (BLM 2008b)
<b>Air Resources</b>
Clean Air Act
<b>Water Resources</b>
Clean Water Act of 1977, as amended
<b>Soil Resources</b>

<b>Table 1-1 Plans, Policies, and Regulations</b>
Wyoming Standards for Healthy Public Rangelands (BLM 1995)
<b>Vegetation Resources</b>
Taylor Grazing Act of 1934 (43 United States Code [USC] 315)
Healthy Forests Act of 2003
Clean Water Act of 1977, as amended
Executive Order 11990: Protection of Wetlands
Executive Order 13112: Control of Invasive Species
Federal Noxious Weed Act of 1974 (Public Law [PL] 93-629)
Final EIS: Vegetation Treatment on BLM Lands in the 13 Western States (BLM 1991)
BLM Manual 4180 – Rangeland Health Standards (BLM 2001b)
Wyoming Standards for Healthy Public Rangelands (BLM 1995)
<b>Fish, Wildlife, and Special Status Species</b>
Endangered Species Act (ESA)
The Bald and Golden Eagle Protection Act
The Migratory Bird Treaty Act (MBTA)
Sikes Act of 1960 (as amended)
Fish and Wildlife Management Act of 1956
Neotropical Migratory Bird Conservation Act (PL 106-247)
Cave Resources Protection Act (16 USC 4301 et seq.)
CFR, Title 50, Section 402 (50 CFR 402), Interagency Cooperation: Endangered Species Act (ESA)
BLM Manual 6840, Special Status Species Management (BLM 2001c)
BLM Manual 4180 Rangeland Health Standards (BLM 2001b)
BLM regulations contained in 43 CFR 8200
Executive Order 12962: Recreational Fisheries (June 7, 1995) and
Executive Order 13186: Conservation of Migratory Birds (January 10, 2001)

<b>Table 1-1 Plans, Policies, and Regulations</b>
<b>Cultural Resources</b>
National Historic Preservation Act
Protecting Cultural Resources, BLM Handbook 8140 (BLM 2004a)
<b>Visual Resources Management</b>
43 CFR 8400 – Visual Resource Management
BLM Information Bulletins 98-135, 98-164, and 2000-096
BLM Handbook 8410-1, Visual Resource Inventory (BLM 1986)
<b>Fuels and Fire</b>
Healthy Forest Restoration Act of 2003
BLM Prescribed Fire Handbook (H-9214-1) (BLM 1998a), supported by the Office of Fire and Aviation Instruction Memorandum 2002-027 (BLM 2002a)
Federal Wildland Fire Management Policy and Program Review (USDOJ 1995 and 2001)
National Fire Management Analysis System (USDA Forest Service, et al 2006)
U.S. Department of the Interior/U.S. Department of Agriculture Western Governors’ Association, 2001; A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy and Implementation Plan (USDOJ and USDA 2001)
Interagency Standards for Fire and Aviation Operations (published annually) (USDOJ 2006a)
Strategic Plan and National Fire Plan Actions (USDOJ 1999)
Interagency Fire Management Plan Template (USDOJ 2006b)
Restoring Fire-Adapted Ecosystems on Federal Lands – A Cohesive Strategy (USDOJ/USDA 2000a)
National Fire Plan (USDOJ, USDA 2000b)
Instruction Memorandum 2003-38, Interim Guidance for Completion of Fire Management Plan Revisions (BLM 2003b)
Washington Office Instruction Memorandum 2004-007, Land Use Plan and Implementation Plan Guidance for Wildland Fire Management Guidance (BLM 2004b)
<b>Rangeland Resources</b>
Taylor Grazing Act of 1934

<b>Table 1-1 Plans, Policies, and Regulations</b>
Public Rangelands Improvement Act of 1978 (PL 95-514)
Executive Order 12548 (1986): Establishment of annual fees for domestic livestock grazing on public rangelands
FLPMA, Sections 102, 201, 202, 302, 304, 307, 309, 310, 401, 402, and 403
BLM regulations contained in 43 CFR 4100 et seq.
BLM Manual 4180 – Rangeland Health Standards (BLM 2001b)
BLM Wyoming Standards for Healthy Public Rangelands (BLM 1995)
<b>Recreation</b>
43 CFR 2930, Permits for Recreation on Public Lands
<b>Transportation</b>
Transportation Safety Act of 1974
Hazardous Materials Transportation Act and Amendments
40 CFR 2740, 2912, 2911, and 2920, Land Use Authorizations
<b>Lands and Realty</b>
43 CFR 2091, 2300, 2400, and 2710
Taylor Grazing Act
Federal Land Transfer Facilitation Act
<b>Fluid Minerals</b>
Federal Onshore Oil and Gas Leasing and Reform Act of 1987 (FOOGLRA)
Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA)
Federal Oil and Gas Royalty Simplification and Fairness Act of 1996 (FOGRS+FA)
43 CFR Parts 3100 and 3200
BLM Onshore Oil and Gas Orders
BLM National Notice-to-Lessees
Unitization Manual 3180 (Exploratory)

<b>Table 1-1 Plans, Policies, and Regulations</b>
Unitization Handbook H-3180-1 (Exploratory)
2006 Oil and Gas Surface Operating Standards and Guidelines (Goldbook, 4th edition) (BLM 2006)
Integration of Best Management Practices (BMPs) into applications for permit to drill approvals and associated rights-of-way (ROWs; WO IM 2007-021)
<b>Special Designations</b>
BLM Manual 1613, Areas of Critical Environmental Concern (BLM 1988)

### 1.5.1.1. Related Plans

The 1985 BRA RMP (BLM 1985a), was amended in 2001 with the BFO RMP (BLM 2001a). Management direction for land and mineral resources administered by the BFO are described in these two documents. Along with the two RMPs for the BFO, there are additional oil and gas and wildlife plans. The BRA Resource Area Oil and Gas Surface Protection Plan (BLM 1982) provides guidance for oil and gas exploration and development within the FCPA.

### 1.5.1.2. Split Estate Lands

Throughout this document, we use the term “*split estate*” to describe certain lands that have a retained Federal mineral interest. The reasons for this split between surface and subsurface ownership varies, usually because when the land originally passed from Federal ownership under the homestead acts or Statehood Act, the minerals were held for benefit of all Americans. The surface of split estate lands in the FCPA are owned privately. These tracts have retained Federal minerals below them, most of which have been leased for mineral development.

While the BLM has the authority to lease and allow development of these split estate tracts, it works closely with surface owners to respect property rights and ensure compatibility with surface uses. In some cases, BLM may not allow activities on private or State split estate lands in conjunction with Federal mineral development if such development were to cause undue or unnecessary degradation to the environment.

### 1.5.2. Collaboration

BLM Land Use Planning Handbook H-1601-1 (BLM 2005a) encourages the BLM to use a “Collaborative Planning Process,” whereby interested parties, often with widely varied interests, can work together to seek solutions with broad support for managing public lands. This section describes specific actions undertaken to consult and coordinate with government agencies, special interest groups, Native American tribes, and the public in the development of this Draft RMPA/EA. Additional information on public involvement and scoping is addressed in Section 1.3.