CHAPTER 1 — INTRODUCTION

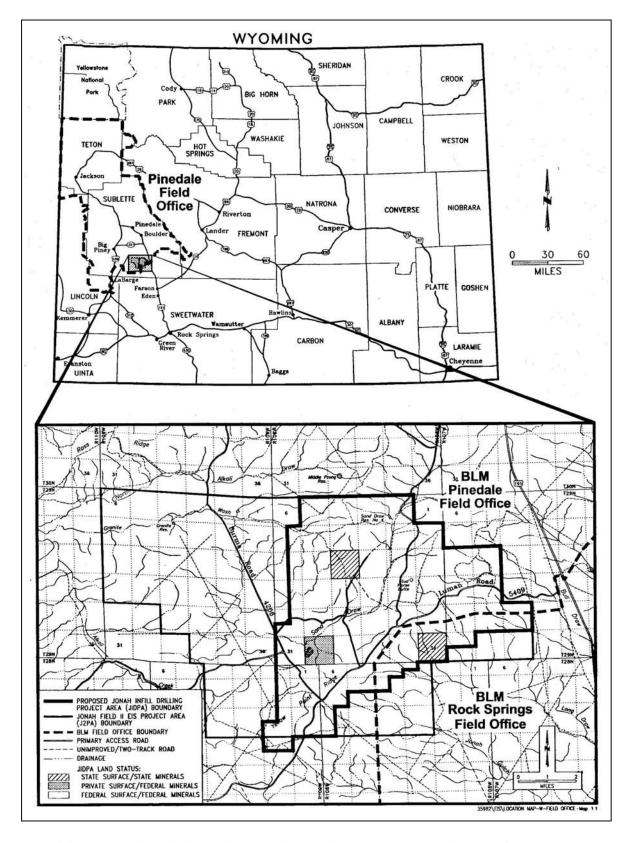
1.1 PROJECT LOCATION, SETTING, AND HISTORY OF PRIOR DEVELOPMENT

The U.S. Department of the Interior (USDI) Bureau of Land Management (BLM) Pinedale Field Office (PFO) and Rock Springs Field Office (RSFO) received a proposal from EnCana Oil & Gas (USA), Inc. (EnCana), BP America Production Company (BP America), and other companies (referred to as "Operators") to expand existing Jonah Field natural gas drilling and development operations in south-central Sublette County, Wyoming, approximately 32 miles southeast of Pinedale, 28 miles northwest of Farson, and 1.5 to 11.0 miles west of U.S. Highway 191 (Map 1.1). Expanded development is proposed in portions of Townships 28 and 29 North (T28N-T29N), Ranges 107, 108, and 109 West (R107-109W).

The project is referred to as the Jonah Infill Drilling Project (JIDP), and the total Jonah Infill Drilling Project Area (JIDPA) encompasses approximately 30,500 acres. This acreage includes approximately 28,580 acres of federal surface and mineral estate managed by the BLM, 1,280 acres of State of Wyoming surface and minerals, and 640 acres of private surface/federal minerals. The JIDPA includes the entire area formerly described as the Modified Jonah Field II Project Area (BLM 2000a), but for analysis purposes has been expanded to include the N½ of Section 23, T28N, R109W, because natural gas development from the same productive formation occurs in this area.

Topography in the JIDPA and surrounding area is characterized by low, gently rolling hills interspersed with buttes; elevations range from approximately 7,000–7,400 feet above mean sea level. Vegetation consists primarily of Wyoming big sagebrush (*Artemisia tridentata* var. *wyomingensis*) communities. Characteristic fauna inhabiting the JIDPA and surrounding areas include pronghorn antelope (*Antilocapra americana*); greater sage-grouse (*Centrocercus urophasianus*); various raptor and passerine species; white-tailed prairie dog (*Cynomys leucurus*); and various hares, rabbits, ground squirrels, mice, rats, and voles. The JIDPA is intersected by numerous ephemeral washes, but contains no perennial water bodies and no known fish species; one large playa is located in Section 32, T29N, R108W, and numerous smaller playas and depressions are scattered throughout the project area. The Wind River Range is typically visible approximately 20 miles to the northeast and the Wyoming Range approximately 50 miles to the west. Precipitation throughout the area is meager, on average totaling only 8.0 inches per year.

The JIDPA is widely acknowledged to be one of the most highly concentrated, highly productive sweet natural gas fields in North America (Bowker and Robinson 1997; Surdam 2001; Gray et al. 2003). The field produces both natural gas and condensate (oil contained in the natural gas stream). Targeted producing strata lie primarily in the Lance Formation and the upper levels of the underlying Mesaverde Group, approximately 7,500–11,800 feet below ground surface. Operator estimates of original gas in place (OGIP) within these formations is at least 12,800 billion cubic feet (BCF), with recoverable volumes under the Proposed Action estimated at approximately 62% of that volume, or roughly 7,900 BCF; condensate recovery under the Proposed Action is estimated at 75.5 million barrels.



Map 1.1. Jonah Infill Drilling Project Location, Sublette County, Wyoming, 2006.

According to the Energy Information Administration (2004), 1 BCF of natural gas is the average annual amount used by 13,700 Wyoming households.

Existing natural gas drilling operations within the JIDPA have been previously authorized in the Jonah Field II Natural Gas Project Environmental Impact Statement (EIS) (BLM 1997a, 1998a) and its Record of Decision (ROD) (BLM 1998b), and subsequently revised by the Environmental Assessment (EA), Finding of No Significant Impact (FONSI), and Decision Record (DR) for the Modified Jonah Field II Natural Gas Project (BLM 2000a, 2000b). These decisions authorized surface disturbance from 497 well pads on 4,209 acres, including roads, pipelines, and other supporting facilities (see Table 2.3). The Proposed Action would entail a major expansion of these existing natural gas development operations.

1.2 OVERVIEW OF THE PROPOSED PROJECT

Based on Operator knowledge of natural gas reservoir characteristics (geology, flow from existing wells, anticipated recovery rates, and economics), the Operators anticipate field development in the JIDPA to involve infill drilling among existing wells. The Operators propose drilling and developing up to 3,100 additional new wells in the JIDPA depending on the outcome of continued exploration and reservoir characterization. Bottom-hole (subsurface) well spacing is expected to range from 16 wells per 640-acre section up to as many as 128 wells/section (1 well/5 acres). The Operators propose a minimum of 64 well pads per section. The construction of various ancillary facilities such as roads, pipelines, water wells, water disposal sites, and compressor station expansions would occur in association with the expanded development. Because the Operators have identified the potential for up to 3,100 new wells with associated facilities on up to 16,200 acres of new surface disturbance, BLM determined that preparation of an EIS was required to analyze the impacts associated with this level of development.

The Draft EIS (DEIS) for this proposed project, published in February 2005, assessed the estimated environmental impacts of the No Action Alternative, the Proposed Action, seven additional action alternatives, and the BLM Preferred Alternative (BLM 2005a). Subsequent public, agency, and Operator comments on the DEIS, in conjunction with analyses later conducted by BLM and extensive internal and interagency discussion, led BLM to eliminate from final analysis in this Final EIS (FEIS) five of the alternatives presented in the DEIS and to significantly revise its Preferred Alternative (see Chapter 2). The purpose of this FEIS is to provide the public decision-makers with sufficient information to understand the anticipated environmental consequences of implementing the project and to select a project alternative that will adequately meet the defined Purpose and Need (Section 1.3) within the context of BLM's broader management goals for all resources under its jurisdiction. Under any alternative, appropriate measures to minimize environmental impacts would be required; these will be stipulated in the project Record of Decision (ROD) and in later site-specific permitting actions.

Standard operating procedures and practices currently used in gas field development throughout Wyoming and the surrounding region would be employed for this project (see Appendix A, BLM Standard Stipulation/Mitigation Requirements, and Appendix B, Development Procedures). In addition, the Operators have committed to a range of standard, project-specific, and site-specific mitigation measures under various alternatives that would serve to further avoid, minimize, or mitigate potential environmental impacts (see Appendix C, Operator-Committed Practices). Construction, development, production, and abandonment would comply with all applicable federal, state, and county laws, rules, and regulations (see Section 1.5). Reclamation would be conducted as soon as practical on disturbed areas, frequently in conjunction with ongoing development elsewhere in the field. Upon project completion, all wells would be

plugged and abandoned, surface facilities would be removed, and disturbed areas would be reclaimed and revegetated.

1.3 PURPOSE AND NEED FOR THE PROJECT

The proposed development meets the purpose and need of BLM Resource Management Plan (RMP) minerals development objectives. These objectives are:

- to maintain or enhance the opportunities for mineral exploration and development, while protecting other resource values;
- to provide for oil and gas leasing, exploration, and development while protecting other values;
- to consider the conservation and enhancement of natural resources with the economic benefits of resource development;
- to coordinate land use decisions with economic factors and needs;
- to plan land use consistent with the orderly development, use, and conservation of resources while preserving environmental quality; and
- to plan uses that encourage energy conservation.

The purpose of the proposed development is also to enable the commercial production by Operators of federally owned natural gas in conformance with BLM RMP oil and gas objectives, pursuant to their rights under existing oil and gas leases issued by the BLM, and to prevent drainage of federal minerals by wells located on adjacent non-federally owned lands (i.e., State of Wyoming lands). All of the federally owned minerals in the JIDPA have been leased. National mineral leasing policies and the regulations by which they are enforced recognize the statutory right of leaseholders to develop federal mineral resources to meet continuing national needs and economic demands as long as unnecessary and undue environmental degradation is not incurred.

According to the American Gas Association (2003), 99% of the natural gas used in the U.S. is produced in North America (85% in the U.S. and nearly 15% in Canada), supplies are abundant, and demand is anticipated to increase 45% by 2015 and 53% by 2020; this project would assist in providing natural gas to meet anticipated demand. Demand has increased 35% in the last decade. The National Petroleum Council (2003) estimates that natural gas provides nearly one-quarter of all U.S. energy requirements, about 19% of electric power generation, and is used for heating and cooking in over 60 million U.S. households. U.S. industries get over 40% of all their primary energy from natural gas.

Development of new gas resources like those proposed by the Operators in the JIDPA is consistent with the Comprehensive National Energy Strategy announced by the U.S. Department of Energy (DOE) in April 1998 (DOE 1998), the Energy Policy and Conservation Act (42 United States Code [USC] 6201), and the Energy Policy Act of 2005 (Public Law 109-58).

1.4 DECISIONS TO BE MADE

The decision BLM will make as a result of the analysis presented in this FEIS is whether to allow, and under what conditions to allow, the development, operation, maintenance, and reclamation of expanded development/surface disturbances on federal land in the JIDPA. BLM will determine what levels of impacts are approved, and what Conditions of Approval (COAs), Best Management Practices (BMPs), mitigation, monitoring, and surveying would be required.

The ROD associated with this FEIS will not be the final review or the final approval for all actions associated with this proposal. BLM must review and authorize each component of the project that involves the disturbance of federal lands on a site-specific basis. The method used to evaluate and authorize each surface-disturbing activity is normally an Application for Permit to Drill (APD), right-of-way (ROW) grant, or Sundry Notice, with supporting environmental record of review, which would be required before any construction can occur.

1.5 REGULATORY SETTING

This EIS incorporates key provisions of Federal Land Policy and Management Act of 1976 (FLPMA) to manage public lands and their resource values to "best meet the present and future needs of the American people" (Section 103 [43 USC 1702]) and to coordinate resource management "without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or greatest unit output" (Section 103 [43 USC 1702]). FLPMA also states that it is appropriate that some lands be used "for less than all of the resources" (Section 103 [43 USC 1702]). The proposed project is compliant with resource management regulations (43 Code of Federal Regulations [CFR] 1610).

The BLM PFO is the lead agency for this EIS because the vast majority of development is proposed for lands under their jurisdiction. The BLM (PFO and RSFO) has provided guidance, input, participation, and independent evaluation during EIS preparation. The State of Wyoming participated in the preparation of this EIS as a cooperating agency; state agencies specifically participating include the Office of State Lands and Investments, Wyoming Department of Environmental Quality (WDEQ), Wyoming Oil and Gas Conservation Commission (WOGCC), Wyoming State Geological Survey (WSGS), Wyoming State Engineer's Office (WSEO), Wyoming Department of Agriculture (WDA), Wyoming Game and Fish Department (WGFD), Wyoming State Historic Preservation Office (SHPO), Wyoming State Parks and Historic Sites, Wyoming Business Council, and Wyoming Department of Transportation. BLM, in accordance with 40 CFR 1506.5(a) and (c), is in agreement with the information and analyses presented in this EIS and approves and takes responsibility for the scope and content of this document.

This EIS was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500–1508), and is in compliance with all applicable regulations and laws subsequently passed, including USDI requirements (Department Manual [DM] 516 [516 DM 1 through 6, 11], Environmental Quality [USDI 2004]), guidelines listed in the BLM National Environmental Policy Act Handbook, H-1790-1 (BLM 1988a), Guidelines for Assessing and Documenting Cumulative Impacts (BLM 1994c), Washington Office Instruction Memorandum (IM) 2005-247 National Environmental Policy Act (NEPA) Compliance for Oil, Gas, and Geothermal Development, and CEQ's Considering Cumulative Effects under the National Environmental Policy Act (CEQ 1997).

1.5.1 Federal Permits, Authorizations, and Coordination

Consistent with regulations regarding federal oil and gas leasing and operations (43 CFR Parts 3100 and 3160 respectively) oil and gas leases are issued by the BLM. Stipulations may be added as terms of a lease to reflect management guidance established in the applicable RMP.

Once the lease is issued, the leaseholder/operator must apply for and receive site-specific authorization(s) prior to drilling within the leasehold area. To meet required environmental obligations, the leaseholder/operator must submit to the BLM an APD or its associated application for ROW so that the appropriate environmental review may be prepared. Environmental documents such as EAs, Categorical Exclusion, or the appropriate environmental record of review for APD or ROW authorizations often include site-specific COAs that add further site-specific operation requirements. Drilling of federal minerals is subject to the BLM's Onshore Oil and Gas Orders (43 CFR Subpart 3164 – Special Provisions). BLM *Onshore Order Nos. 1* and 2 require an applicant to comply with the following conditions:

- operations must result in the diligent development and efficient recovery of resources;
- all activities must comply with applicable federal, state, and local laws and regulations applicable to federal leases;
- all activities must include adequate safeguards to protect the environment;
- disturbed lands must be properly reclaimed; and
- all activities must protect public health and safety.

Onshore Order No. 1 specifically states that "lessees and operators shall be held fully accountable for their contractor's compliance with the requirements of the approved permit and/or plan" (48 Federal Register [FR] 56226, December 20, 1983).

Pipeline and road ROWs on federal lands would be issued under the authority of the Mineral Leasing Act of 1920 as amended or FLPMA. ROW grants authorizing construction of ancillary facilities, access roads, and pipelines would grant the Operators certain rights that are subject to the terms and conditions incorporated into the grant by BLM.

Nine Presidential Executive Orders (EOs) also affect implementation of the proposed project. These EOs, which are binding on all government agencies, place restrictions on government approval of construction activities and apply to wetlands (EO 11990), floodplains management (EO 11988), migratory birds (EO 13186), environmental justice (EO 12898), Native American sacred sites (EO 13007), historic trails (EO 13195), cultural resources and historic preservation (EO 11593 and EO 13287), and invasive species (EO 13112).

The BLM also has specific provisions it must adhere to regarding the draining of federal minerals from adjoining nonfederal lands. These provisions are codified in 43 CFR 3100.2, which states that, upon determination that lands owned by the U.S. are being drained of oil or gas by wells drilled on adjacent lands, the BLM may execute agreements with the owners of adjacent lands whereby the U.S. and its lessees shall be compensated for such drainage. In addition, where lands in any lease are being drained of their oil and gas content by wells either on another federal lease, issued at a lower rate or royalty, or on nonfederal lands, the lessee shall both drill and produce all wells necessary to protect the lease lands from drainage. In lieu of drilling necessary wells, the

lessee may, with the consent of the BLM, pay compensatory royalty. These provisions are also incorporated in the lease terms contained in all federal oil and gas leases (Form 3100-11).

A list of the major permits, approvals, and authorized actions necessary to construct, operate, maintain, and abandon project facilities is provided in Table 1.1.

Table 1.1. Major Federal, State, and Local Permits, Approvals, and Authorizing Actions for the Jonah Infill Drilling Project, Sublette County, Wyoming, 2006¹

Agency	Permit, Approval, or Action	Authority
Office of the President of the United States	Protection and enhancement of the cultural environment	Executive Order 11593
	Floodplains management	Executive Order 11988
	Protection of wetlands	Executive Order 11990
	Environmental justice	Executive Order 12898
	Indian sacred sites	Executive Order 13007
	Invasive species	Executive Order 13112
	Protection of migratory birds	Executive Order 13186
	Trails for America in the 21st century	Executive Order 13195
	Preserve America	Executive Order 13287
Bureau of Land Management (BLM)	Permit to drill, deepen, or plug back on federal onshore lands (Application for Permit to Drill [APD]/Sundry process); authorization for flaring and venting of natural gas on federal lands; plugging and abandonment of a well on federal lands	Mineral Leasing Act of 1920 (30 United States Code [USC] 181 et seq.); 43 Code of Federal Regulation (CFR) 3162
	Right-of-way (ROW) grants and temporary use clearances on federal lands	Mineral Leasing Act of 1920, as amended (30 USC 185); 43 CFR 2880; Federal Land Policy and Management Act (FLPMA) (43 USC 1761–1771); 43 CFR 2800
	Antiquities and cultural resource clearances on BLM-managed land	Antiquities Act of 1906 (16 USC Section 431–433); Archaeological Resources Protection Act of 1979 (16 USC Sections 470aa–470ll); Preservation of American Antiquities (43 CFR 3)
	Approval to dispose of produced water on BLM-managed land	Mineral Leasing Act of 1920 (30 USC 181 et seq.); 43 CFR 3164; Onshore Oil and Gas Order No. 7
U.S. Army Corps of Engineers (COE)	Section 404 permits and coordination regarding placement of dredged or fill material in area waters and adjacent wetlands	Section 404 of the Clean Water Act of 1972 (40 CFR 122-123, 230)
U.S. Fish and Wildlife Service (USFWS)	Coordination, consultation, and impact review on federally listed threatened and endangered (T&E) species	Fish and Wildlife Coordination Act (16 USC Sec. 661 et seq.); Section 7 of the Endangered Species Act of 1973, as amended (16 USC et seq.); Bald Eagle Protection Act, as amended (16 USC 668–668dd)

Table 1.1. (Continued)

Agency	Permit, Approval, or Action	Authority
U.S. Environmental Protection Agency (EPA)	Spill Prevention, Control, and Countermeasure Plans (SPCCPs)	40 CFR 112
	Regulation of hazardous waste treatment, storage, and/or disposal	Resource Conservation and Recovery Act (42 USC 6901)
U.S. Department of Energy (DOE)	Regulation of interstate pipeline product transportation	Various sections of the USC and CFR
U.S. Department of Transportation (DOT)	Control of pipeline maintenance and operation	49 CFR 191 and 192
Wyoming Board of Land Commissioners/ Land and Investments Office	Approval of oil and gas leases, ROWs for long-term or permanent off-lease/off-unit roads and pipelines, temporary use permits, and developments on state lands	Wyoming Statute (WS) 37-1-101 et seq.
Wyoming Department of Environmental Quality - Water Quality Division (WDEQ/WQD)	Regulation of off-lease disposal of drilling fluids from abandoned reserve pits	Wyoming Environmental Quality Act (WS 35-11-301 through 35-11-311)
	National Pollutant Discharge Elimination System (NPDES) permits for discharging waste water and stormwater runoff	WDEQ Rules and Regulations, Chapter 18, Wyoming Environmental Quality Act (WS 35-11-301 through 35-11-311); Section 405 of the Clean Water Act (40 CFR 122– 124)
	Administrative approval for discharge of hydrostatic test water	Wyoming Environmental Quality Act (WS 35-11-301 through 35-11-311)
Wyoming Department of Environmental Quality - Air Quality Division (WDEQ/AQD)	Permits to construct and permits to operate	Clean Air Act; Wyoming Environmental Quality Act (WS 35-11-201 through 35-11- 212)
Wyoming Department of Environmental Quality - Land Quality Division (WDEQ/LQD)	Mine permits, impoundments, and drill hole plugging on state lands	Wyoming Environmental Quality Act, Article 4, and Quality, as amended (WS 35- 11-401 through 35-11-437)
Wyoming Department of Environmental Quality - Solid Waste Division	Construction fill permits and industrial waste facility permits for solid waste disposal during construction and operations	Wyoming Environmental Quality Act (WS 35-11-501 through 35-11-520)
Wyoming Department of Transportation (WDOT)	Permits for oversize, overlength, and overweight loads	Chapters 17 and 20 of the Wyoming Highway Department Rules and Regulations
Wyoming Oil and Gas Conservation	Permit to use earthen pit (reserve pits) on nonfederal lands	WOGCC Regulations (Section III; Rule 305)
Commission (WOGCC)	Authorization for flaring or venting of gas	WOGCC Regulations (Section III; Rule 326)
	Permit for Class II underground injection wells	WOGCC Regulations (Section III; Rule 346)

Table 1.1. (Continued)

Agency	Permit, Approval, or Action	Authority
Wyoming Oil and Gas Conservation Commission (WOGCC), continued	Well plugging and abandonment	40 CFR 146; 40 CFR 147.2551
	Permit to drill, deepen, or plug back (APD process)	WOGCC Regulations (Section III; Rule 315)
	Change in depletion plans	Wyoming Oil and Gas Act (WS 30-5-110)
	Minimum safety standards for oil and gas activities	WOGCC Regulations (Rules 320-A, 327, and 328)
Wyoming State Engineer's Office (WSEO)	Permits to appropriate groundwater (use, storage, wells, dewatering)	WS 41-121 through 147 (Form U.W.5)
	Permits to appropriate surface water	WS 41-201 (Form S.W.1)
Wyoming State Historic Preservation Office (SHPO)	Cultural resource protection, programmatic agreements, consultation	Section 106 of National Historic Preservation Act (NHPA) and Advisory Council Regulations (36 CFR 800)
Sublette County	County road crossing/access permits	Planning and Zoning Department
	Small wastewater permits	Planning and Zoning Department
	Hazardous material recordation and storage	Emergency Management Coordinator
	Zone changes	Planning and Zoning Department
	Noxious weed control	Weed and Pest Department

This list is intended to provide an overview of the key regulatory requirements that would govern project implementation. Additional approvals, permits, and authorizing actions may be necessary.

1.5.2 Wyoming BLM Mitigation Guidelines and Practices for Surface Disturbing and Disruptive Activities

The Wyoming BLM has adopted a standard set of guidelines and post-lease COAs that apply to all surface-disturbing activities on federal lands and minerals in Wyoming (see Appendix A). These mitigation guidelines encompass all aspects of environmental protection. Upon request by the applicant, an exception to a lease stipulation or a COA may be granted by the BLM following on-site review to see if the exception is warranted.

With the exception of specific mitigations excluded from Alternative A (see Chapter 2), the standard Wyoming BLM mitigation guidelines are applied to all alternatives analyzed in this EIS.

1.5.3 Conformance with BLM Pinedale and Green River Resource Management Plans

Policies for development and land use decisions within the JIDPA are contained in the draft and final Pinedale Resource Area (now referred to as the PFO) RMP/EIS (BLM 1987a, 1987b), its ROD (BLM 1988b), and the Green River Resource Area (now referred to as the RSFO) RMP/EIS (BLM 1992a, 1996a) and its ROD (1997b). These two RMPs allocate which lands and/or minerals are appropriate for leasing. These documents also provide development guidelines. Both RODs indicate federal minerals will be made available for orderly and efficient

development, and all minerals actions will comply with goals, objectives, and resource restrictions (mitigations) required to protect other resource values. Both the PFO and RSFO planning areas (excluding specific locations outside the JIDPA) are open to consideration for exploration, leasing, and development for all leaseable minerals (e.g., oil, gas, coal).

The alternative selected and approved for the JIDP must be in conformance with the PFO and RSFO RMPs. The PFO RMP states that Preferred Alternatives would be considered in conformance if they: (1) are specifically provided for in the plan, (2) are consistent with the provisions, guidelines, and objectives of the plan, or (3) are not specifically prohibited or are not inconsistent with objectives and other actions that are provided for in the plan. The Preferred Alternative must meet at least one of these requirements in all aspects of its implementation to be in conformance with the PFO RMP. The RSFO RMP simply states that "All public land and resource uses in the planning area must conform with the decisions, terms, and conditions of use" described in the RMP. BLM has determined that the Preferred Alternative for the JIDPA complies with the applicable decisions, terms, and conditions of use in the RSFO RMP.

The Notice of Intent (NOI) for this EIS (see Section 2.1) indicated the possible need for an amendment to the PFO RMP as a result of proposed new well drilling and surface disturbance. However, an amendment would not be needed so long as the approved alternative remains in conformance with the RMP's objectives. BLM has determined that the proposed project is in conformance with the RMP's objectives, and therefore does not require an amendment of the PFO RMP as updated by the ROD for the Pinedale Anticline Oil and Gas Exploration and Development Project (BLM 2000c) if development at the proposed level were approved.

Specifically, the proposed project is in conformance with the overall fluid minerals management objectives of the PFO and RSFO RMPs, even though it partially exceeds estimates of reasonably foreseeable development (RFD) in the PFO RMP (as updated in BLM 2000c). The Pinedale Anticline ROD set an oil and gas RFD projection of 1,944 new wells (above the 1,815 wells present at that time) over a 10- to 15-year period beginning in 2000, and included 6,300 acres of new long-term disturbance (above the 14,076 acres present at that time). As of March 2004, the WOGCC website listed 2,530 wells in the PFO area; these wells are estimated to require approximately 8,572 acres of long-term disturbance. Current oil and gas development proposals in the PFO could add approximately 3,310 more wells (more than the updated RFD) and 5,190 acres of new long-term disturbance (less than the updated RFD). Though this exceeds the RFD for number of new wells, the BLM considers long-term surface disturbance as the governing objective. Under this management strategy, existing RMP objectives would still be met.

It should be noted that projections of RFD are based upon the best data available at the time and the professional judgment of the estimators. Although considerable effort is put forth in developing these estimates, actual development may differ from the projections. However, any approved alternative must continue to comply with key elements of the RMPs (i.e., areas prohibited from surface disturbance continue to remain withdrawn, long-term surface disturbance objectives are met, and only areas previously opened for development are included in the JIDPA) or include actions necessary to update and/or amend the plan. In addition, reasonable stipulations must be implemented to reduce or eliminate adverse impacts resulting from the development. Thus, although the project may not be consistent with RFD projections for number of new wells, it remains in conformance with the overall fluid minerals management objectives of the RMPs.

The air quality management objectives set forth in the RMPs state that air quality would be maintained at present levels or enhanced where possible. It also notes the BLM would try to minimize, within the scope of its authority, any emissions that may add to existing impacts.

Existing field development has already caused some impacts to air quality in the JIDPA, so the baseline conditions for implementation of the current proposal no longer meet those present when the PFO RMP was developed. Nevertheless, air quality in the Pinedale area remains excellent. It should be noted that agencies with responsibility and authority for regulating air quality include the Environmental Protection Agency and the State of Wyoming Department of Environmental Quality. Current modeling predicts that existing levels of emissions may cause some visibility impacts outside of the JIDPA boundary. However, the BLM will implement various mitigations that will require a reduction in project-specific air quality impacts over the life of the project compared to development stage levels. This will meet the RMPs' objective of minimizing those air quality impacts that are within the BLM's authority to regulate.

The wildlife management objective of the PFO RMP is to maintain sufficient habitat to support wildlife populations at the 1987 WGFD planning objective levels, as updated in 2004 to reflect more recently available data. However, well spacing authorized prior to 2004 has resulted in adverse impacts to some species. To mitigate the additional impacts of infill drilling, the Operators have proposed off-site mitigation aimed at habitat enhancement linked to various levels of authorized surface disturbance (see Chapter 5). This off-site mitigation would also meet the objectives of the RSFO RMP, which include improving or enhancing biological diversity while providing for wildlife needs. Considering the existing conditions in the project area, incorporation of off-site mitigation in the selected alternative would result in a positive impact to wildlife in the area. Three of the four action alternatives presented in Chapter 2 (i.e., the Proposed Action, Alternative A, and the Preferred Alternative) would include extensive provisions for off-site mitigation aimed at habitat enhancement as part of the project and are therefore considered in conformance with the wildlife management objectives of the RMPs because such mitigation would help achieve the intent of those objectives.

1.5.4 State and Local Permits, Authorization, and Coordination

The proposed project development alternatives are in conformance with the *Wyoming State Land Use Plan* (Wyoming State Land Use Commission 1979) and the *Sublette County Comprehensive Plan: County Vision, Goals and Policies* (Sublette County Board of Commissioners [SCBC] and Sublette County Planning Commission [SCPC] 2003). The alternatives comply with all relevant state and county laws and regulations (see Table 1.1).