Chapter 1
Introduction

1.1 BACKGROUND

The United States Department of the Interior (USDI), Bureau of Land Management (BLM) has prepared this Final Supplemental Environmental Impact Statement (SEIS) to evaluate and disclose to the public the direct, indirect, and cumulative environmental impacts associated with a proposed long-term plan for continued exploration and development of natural gas resources in the Pinedale Anticline Project Area (PAPA) in Sublette County, Wyoming (see Map 1.1-1). The BLM released a Draft SEIS on December 15, 2006 (BLM, 2006a). The public review and comment period lasted for 114 days and ended on April 6, 2007. The original public review and comment period of 45 days was extended twice; once in response to a request from the public and once due to release of the Ozone Modeling Analysis Supplement. BLM provided public notice for the extensions. Based on comments received, the BLM developed two new Alternatives and completed additional analyses resulting in a Revised Draft SEIS (BLM, 2007a). The Revised Draft SEIS included a description of the original three Alternatives and two new Alternatives and described the potential environmental consequences of each. The BLM released the Revised Draft SEIS on December 28, 2007. The public review and comment period lasted for 45 days and ended on February 11, 2008. Based on comments received on the Revised Draft SEIS, BLM has prepared this Final SEIS. BLM's response to comments received on the Draft SEIS and on the Revised Draft SEIS is included as part of this Final SEIS. All comments received on the Draft SEIS and the Revised Draft SEIS are on file with the BLM.

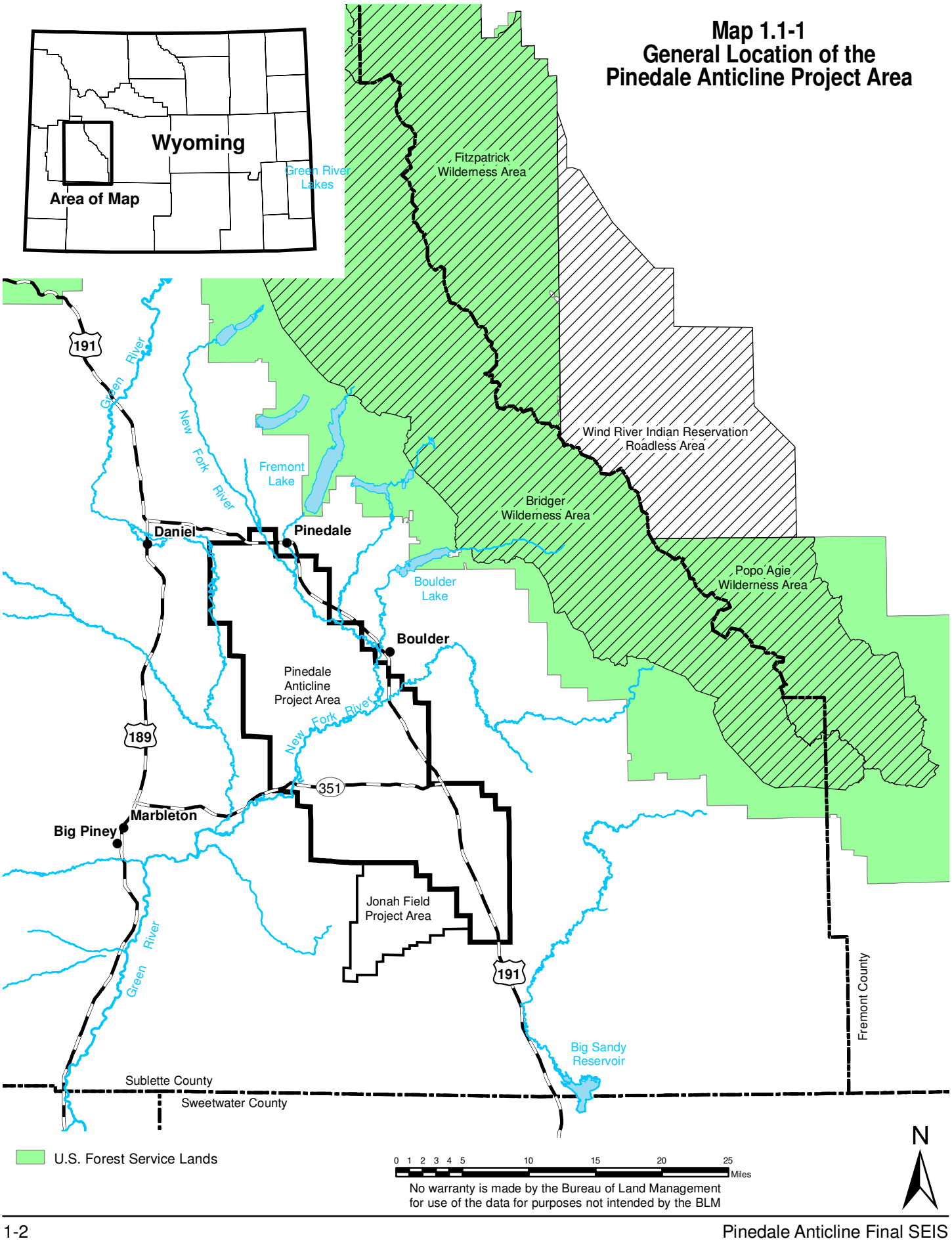
1.2 INTRODUCTION

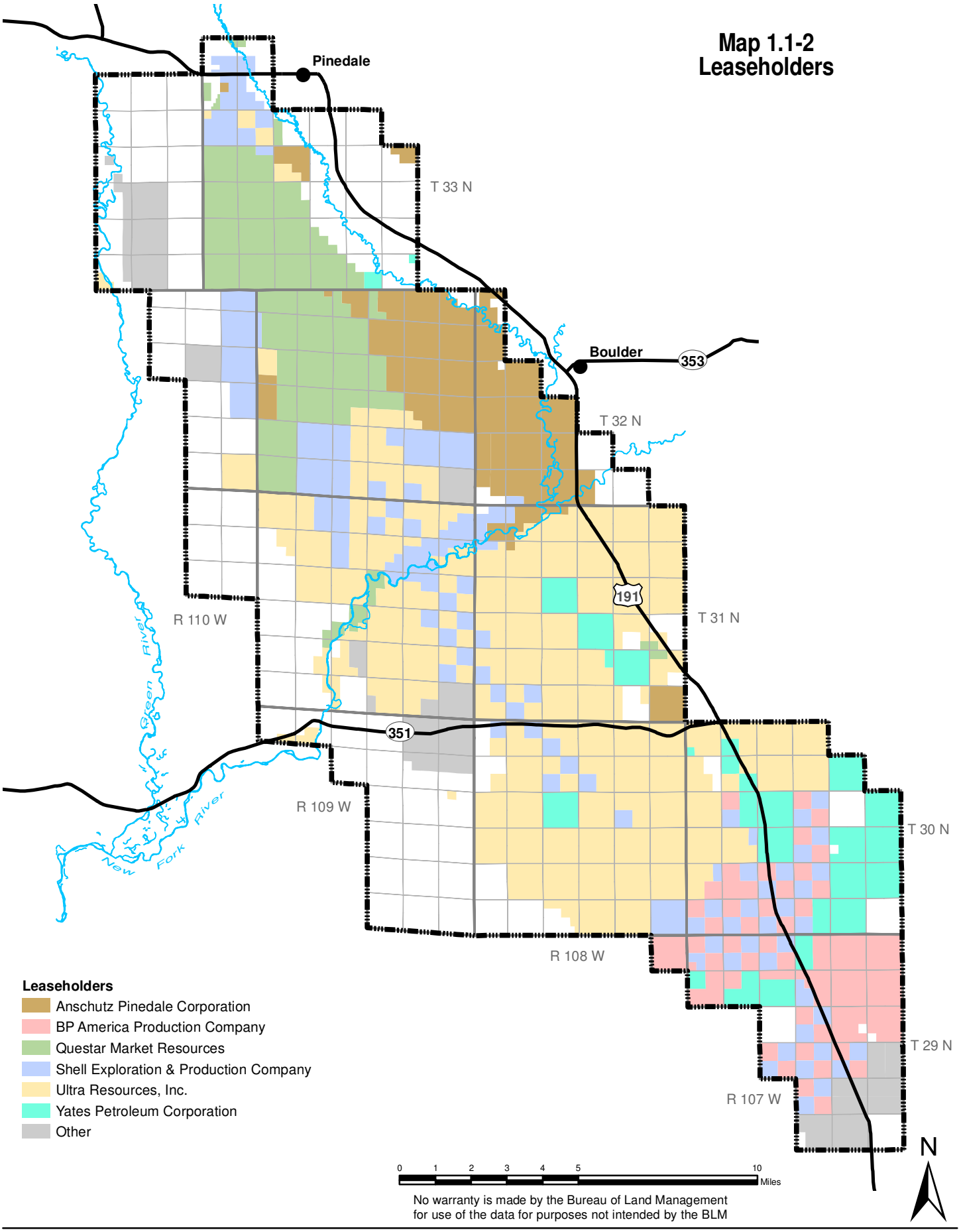
The BLM administers the federal land and mineral estate that comprises approximately 80 percent of the 380-square mile PAPA addressed by this supplement. The BLM is the lead agency with primary responsibilities for the preparation of this SEIS. There are three cooperating agencies: the State of Wyoming, Sublette County, and Sublette County Conservation District.

Collectively referred to as the Proponents, Ultra Resources, Inc. (Ultra), Shell Exploration & Production Company (Shell), Questar Market Resources (Questar) including Wexpro Company, BP America Production Company (BP), Stone Energy Corporation (Stone), Newfield Exploration Company (Newfield), Yates Petroleum Corporation (Yates), and Anschutz Pinedale Corporation (Anschutz) have submitted to the BLM Pinedale Field Office (PFO) a proposal for a long-term development plan that includes year-round development (construction, drilling, completion, and production) of 4,399 additional natural gas wells within their leases in the PAPA (see Map 1.1-2).

In addition to year-round development proposals by the Proponents, the BLM has identified the need for additional pipeline corridors to transport hydrocarbon products from the PAPA to gas processing plants in southwestern Wyoming. Jonah Gas Gathering Company (JGGC) and Rendezvous Gas Services (RGS) propose gas sales pipelines that would be sited within the new corridors, and Questar Gas Management (QGM) is proposing an expansion of the Granger Gas Processing Plant in Sweetwater County. Analysis of potential impacts associated with the corridors and gas sales pipelines is included in this Final SEIS. Air quality impact analyses associated with the proposed expansion of the Granger Gas Plant are also included in this document.

Map 1.1-1
General Location of the Pinedale Anticline Project Area




Map 1.1-2
Leaseholders
Pinedale
Boulder
353
191
351
T 33 N
T 32 N
T 31 N
T 30 N
T 29 N
R 110 W
R 109 W
R 108 W
R 107 W
Green River
New Fork River
Leaseholders
Anschutz Pinedale Corporation
BP America Production Company
Questar Market Resources
Shell Exploration & Production Company
Ultra Resources, Inc.
Yates Petroleum Corporation
Other
0 1 2 3 4 5 10
Miles
N
No warranty is made by the Bureau of Land Management
for use of the data for purposes not intended by the BLM

This document supplements the analysis and decisions reached by the BLM as the lead agency, in cooperation with the U.S. Department of Agriculture Forest Service (USFS), U.S. Army Corps of Engineers (COE), and the State of Wyoming in the *Final Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project, Sublette County, Wyoming* (PAPA FEIS - BLM, 2000a) and in the *Record of Decision for the Pinedale Anticline Oil and Gas Exploration and Development Project, Sublette County, Wyoming* (PAPA ROD - BLM, 2000b).

Regulations promulgated by the Council on Environmental Quality (CEQ, 1978) require federal agencies to prepare supplements to existing documents (40 CFR §1502.9(c)(1)) implementing provisions of the National Environmental Policy Act (NEPA) if:

> "*(i) The agency makes substantial changes that are relevant to environmental concerns; or (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts*."

The BLM provided similar guidance in H-1790-1 National Environmental Policy Act Handbook (BLM, 1988a) with the additional explanation:

> *"if an existing relevant environmental document does not fully cover a proposed action and it is not appropriate to tier, then a determination should be made on whether to supplement or modify the existing document or prepare an entirely new one."*

The BLM prepared this Final SEIS because the Proponents' proposed long-term development plan is substantially different from the approach that was analyzed in the *Draft Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project, Sublette County, Wyoming* (PAPA DEIS - BLM, 1999a) and approved in the PAPA ROD (BLM, 2000b). Limits on levels of development and analysis thresholds were set forth in the PAPA ROD. Under the current proposal, these limits may be exceeded. The analysis threshold for nitrogen oxides (NO_x) has already been exceeded. The Proponents' proposal requests exception from BLM seasonal restrictions for big game (mule deer and pronghorn) and greater sage-grouse, which seasonally restrict development activities within certain habitats. The BLM has determined that the Proponents' proposal could cause significant impacts to the human and natural environments.

The BLM recognizes that additional air quality impact analysis is required for continued development of the PAPA. The PAPA ROD (BLM, 2000b) states:

> *"If activity and corresponding emission assumptions and/or impacts exceed those identified in the Pinedale Anticline EIS (376.59 tons/year of NO_x emission from compressors or 693.50 tons/year NO_x emissions from the combination of construction/drilling, well production, and compression), the BLM, in cooperation and consultation with Wyoming Department of Environmental Quality-Air Quality Division (WDEQ-AQD), EPA Region VIII, USDA-Forest Service, and other affected agencies, will undertake additional cumulative air quality environmental review as required by CEQ regulations 40 CFR §1502.9(c)(1)(ii)."*

The BLM has determined that NO_x emissions from all sources in the PAPA currently exceed the 693.50 tons per year (tpy) analysis threshold specified in the PAPA ROD (BLM, 2000b). This Final SEIS serves as the additional cumulative air quality environmental review referenced above.

1.3 REGIONAL SETTING AND PROJECT AREA DESCRIPTION

The PAPA is located in west-central Wyoming in Sublette County (see Map 1.1-1). The PAPA contains 198,037 acres of predominately federal lands with federal mineral rights but also contains private and state lands and minerals. The Town of Pinedale is situated on the northern end of the PAPA. Pinedale is located approximately 80 miles south of Jackson and 100 miles north of Rock Springs. Other communities/settlements in the general vicinity of the PAPA include Cora, Daniel, Boulder, Bargerville, Marbleton, and Big Piney.

The PAPA lies between U.S. Highway 191 and the Green River. U.S. Highway 191 runs along the eastern and northern edges of the PAPA and is the primary route to the PAPA as well as the primary route for tourist travel to Yellowstone and Grand Teton National Parks. U.S. Highway 189, also a primary tourist travel route, runs west of the PAPA, and State Highway 351 crosses through the southern portion of the PAPA (see Map 1.1-1).

No National Forest System lands are located in the PAPA; however, the Bridger-Teton National Forest (BTNF) is located west, north, and east of the PAPA. The northern boundary of the PAPA comes within 2.3 miles of the administrative boundary of the BTNF.

Sagebrush communities dominate the PAPA with shrub-steppe vegetation blending into riparian areas and wetland areas of the New Fork River and Green River flood plains. The higher elevation area between these rivers in the northern half of the PAPA is known locally as the "Mesa."

1.4 PAPA EIS AND ROD

As documented in the PAPA ROD (BLM, 2000b), the BLM's State Director selected the *Resource Protection Alternative on Federal Lands and Minerals,* with modifications. A summary of natural gas development levels as approved by the PAPA ROD is included to provide background information and historical perspective and to establish the context within which this supplement was developed. This SEIS incorporates by reference and tiers to the environmental documents prepared for the PAPA EIS. Collectively, the DEIS and the FEIS are referred to as the "PAPA EIS."

The PAPA EIS realized uncertainty in the projected impacts (e.g., see PAPA DEIS, page 1-2). Potential development evaluated in the PAPA EIS was a maximum of 900 initial well pads and 700 producing well pads over 10 to 15 years, which some participants considered optimistic (PAPA DEIS, page 2-2). The BLM asserted, "*it is possible that development within the PAPA could go beyond the levels of development considered in this EIS, although few would consider such a level of development as reasonably foreseeable*" (PAPA DEIS, page 2-2).

The PAPA ROD (BLM, 2000b) required that if any approved level of development as analyzed in the PAPA EIS were to be exceeded, the BLM would prepare a supplement. The components approved by the PAPA ROD in Section 2 include:

- 900 initial well pad locations on all lands and minerals within the PAPA,
- 700 producing wells and/or well pads on all lands and minerals within the PAPA,
- 700 production facilities at individual well locations,
- central production facilities,
- 4 compressor facility sites,
- water wells for drilling/completion,

- 1 BP Amoco Field Office,
- ~121.5 miles of sales pipeline corridor for multiple pipelines,
- ~276.0 miles of access road (including collector, local, and resource roads), and
- ~280.0 miles of gathering pipeline system.

Section 2 also states, "*This ROD authorizes the construction and drilling of up to 900 wells and the completion, testing, and production of up to 700 producing natural gas well pads within the PAPA.*"

In addition to expressing "*uncertainty,*" the PAPA ROD is ambiguous. In Section 2 alone it is evident that, from the bulleted list and the statement above, it is not clear whether the PAPA ROD is authorizing "700 wells" or "700 producing well pads," and "900 wells" or "900 well pad locations." Furthermore, in Section 1 - Introduction of the PAPA ROD, the following statements occur:

- "*BLM approves the Pinedale Anticline Operators proposal for 700 producing well pads;*"
- "*The ROD recognized that in order to develop 700 productive well pads in the PAPA, as many as 900 well pads may need to be constructed;" and*
- "*Monitoring for project consistency with the scope of EIS analysis will be based on the total of 700 producing well pads.*"

When the PAPA ROD (BLM, 2000b) was issued in July 2000, the extent to which directional drilling would be implemented in the PAPA was uncertain. Although there was allowance in the PAPA ROD for multi-well pads, it was generally assumed that most well pads would contain a single well. It was not the intent of the PAPA ROD to limit wells but rather to limit well pads within defined Management Areas (MAs) based on sensitive resources. MAs are defined in the PAPA EIS. The air quality impact assessment for the PAPA EIS assumed that there would be 700 producing wells in the PAPA; hence, the ambiguous interchange between wells and well pads.

Multiple requirements for managing development-related impacts to specific resources are defined in Section 3 and various appendices to the PAPA ROD (BLM, 2000b). These requirements are summarized in Table 1 of Appendix 1 as:

- requirements of federal statute and/or agency policy,
- required plan for development or for implementing another action,
- required multi-party memorandum of understanding (MOU), programmatic agreement (PA), or less formal agreement,
- required Adaptive Environmental Management (AEM) with monitoring and/or reporting,
- required implementation of relevant practices and guidelines, and
- implementation of required or suggested mitigation.

The BLM's Preferred Alternative in the PAPA EIS was to be implemented with restrictions to exploration and development within each of nine defined MAs. Some of the MAs represent various combinations of sensitive resource management zones (SRMZs) as defined and analyzed in the PAPA DEIS (BLM, 1999a). While the extent of development within the entire PAPA was limited by BLM's Approved Project Components (BLM, 2000b - Section 2) and Administrative Requirements and Conditions of Approval (BLM, 2000b - Section 3), Section 4 of the PAPA ROD (BLM, 2000b) provided specific limits of development within each of the nine MAs based on numbers of producing well pads.

In each MA, the average and maximum numbers of producing well pads per square mile were based on analyses of various assumptions and limits in the PAPA EIS. According to the PAPA ROD, should development in a MA reach the limit of producing well pads, BLM approval of additional well pads would halt until additional environmental analyses are completed or until wells on a pad are no longer producing gas, have been plugged, and the pad area reclaimed for one full growing season. The reclaimed pad would be credited back to the MA and a new well pad could be developed as long as the limit is not exceeded. Descriptions of each MA, objectives for managing the MA, and allowable levels of development are summarized in Table 2 of Appendix 1 in this Final SEIS.

Uncertainties associated with levels of exploration and development and geographic distribution of development in each MA are reflected in the allowable levels of development in Table 2 (Appendix 1). To ensure that specific MA objectives were met, the BLM mandated a comprehensive monitoring program using an Adaptive Management (AM) process that depends on participation by cooperating agencies and the public. CEQ regulations require monitoring (40 CFR §1505.2(c) and §1505.3). In August 2004, the Secretary of the Interior chartered the Pinedale Anticline Working Group (PAWG) under the Federal Advisory Committee Act. The primary responsibility of the PAWG is to provide recommendations to the BLM on monitoring and mitigation.

1.5 EXCEPTIONS AND SUBSEQUENT NEPA DOCUMENTS TIERED TO THE PAPA EIS

The PAPA ROD (BLM, 2000b) allows exceptions (Appendix A-6 in the PAPA ROD) to *Administrative Requirements and Conditions of Approval* (Section 3) to some lease stipulations and conditions of approval. In the years since the PAPA ROD was issued, the most frequently requested exception is one where the operator/leaseholder seeks to continue working past the onset of big game timing restrictions. These exceptions are provided for in the Pinedale Resource Management Plan - RMP (BLM, 1988b) and administered by the BLM's Authorized Officer (AO).

In addition to exceptions to lease stipulations, BLM (2003a) noted, *"waivers, exceptions, and modifications are viable and effective means of adapting oil and gas lease stipulations to meet changing circumstances. Circumstances for granting a waiver, exception, or modification are documented in most existing land use plans and are a requirement of all future land use plans,*" and provided the following application of the terms:

- Lease stipulation waiver is a permanent exemption to a lease stipulation;
- Lease stipulation exception is a one-time exemption to a lease stipulation and exceptions are determined on a case-by-case basis; and
- Lease stipulation modification is a change to the provisions of a lease stipulation, either temporarily or for the term of the lease.

Since 2000, the BLM AO has considered requests for exceptions to big game, greater sage-grouse, and raptor seasonal stipulations or restrictions. Exceptions to these restrictions have been granted, partially granted, or denied for a variety of activities including drilling, completions, equipment removal, pipeline installation, surveying, seismic and geophysical surveys, wildlife research studies, and various other wellfield activities.

Prior to making decisions regarding exceptions, the BLM coordinates a review with the Wyoming Game and Fish Department (WGFD). For exception requests to big game crucial winter range seasonal restrictions, a consultation is held with WGFD biologists to assess animal

presence or absence, animal condition, weather severity, habitat condition and availability, specific site location, and requested action. Exception requests and subsequent decisions made by the BLM AO from 2001 through 2007 are summarized in Table 3 of Appendix 1 of this document.

After the approval of the PAPA ROD (BLM, 2000b), the BLM evaluated five requests for approval of development strategies related to year-round drilling in subsequent Environmental Assessments (EAs). The Decision Records for each of the EAs are included in Table 4 in Appendix 1 and summarized below:

- Questar Year-Round Drilling Proposal – EA Number WY-100-EA05-034, November 2004. Questar proposed installation of a gathering system for condensate and produced water in the PAPA, construction of a pipeline to transport crude petroleum from the PAPA, and utilization of Tier 2 compliant drilling rig engines or alternate fuels with emissions equivalent to Tier 2 engines by 2007. In November 2004, the BLM issued a Decision Record (BLM, 2004a) approving the proposal and allowing Questar to utilize up to six drilling rigs (two rigs per pad for up to three pads between November 15 and April 30 for 9 years beginning November 15, 2005).

- Questar Year-Round Drilling Proposal - Condensate Pipeline Modification (QYDP-CPM) - EA Number WY-100-EA05-283, July 2005. In July 2005, the BLM issued a Decision Record (BLM, 2005a) for modification of the condensate (crude petroleum) pipeline route. Approval of drilling operations between November 15, 2005 and April 30, 2006 would be contingent upon the liquids gathering system being operational by November 15, 2005. The Decision Record required Questar to utilize Tier 2 compliant drilling rig engines (or equivalent, or better) on all year-round drilling rigs by January 1, 2008.

- ASU Year-Round Drilling Demonstration Project - EA Number WY-100-EA05-254, September 2005. Anschutz, Shell, and Ultra submitted a proposal to the BLM for a year-round drilling demonstration project. In September 2005, the BLM issued a Decision Record (BLM, 2005b) that approved drilling operations between November 15, 2005 and July 31, 2006 within big game crucial winter ranges, sage-grouse nesting and brood-rearing habitat, and sage-grouse winter concentration areas. It allowed completion operations beginning May 1, 2006. The Decision Record allowed up to two drilling rigs on each of three well pads between November 15, 2005 and July 31, 2006.

- Questar Year-Round Drilling Proposal, Addendum - EA Number WY-100-EA06-043, November 2005. The BLM issued a Decision Record (BLM, 2005c) that allowed for accelerated winter development on the Mesa, including well completions and the addition of a third drilling rig on the Mesa 3-20 winter drilling pad, and allowed a total of seven drilling rigs during winter 2005-2006.

- Ultra 2006-2007 Big Game/Sage Grouse Exception for the Mesa 10D-33 Deep Well - EA Number WY-100-EA07-006, November 2006. The BLM issued a Decision Record (BLM, 2006b) that allowed for drilling operations between November 15, 2005 through May 17, 2007 within big game crucial winter range and greater sage-grouse brood-rearing and nesting habitat at the Mesa 10D-33 well location. The Decision Record required monitoring of traffic volumes, dead carcasses, and emissions tracking of three natural gas fired turbines which were to be used to drill the well. The Decision Record was valid only for the 2006-2007 season.

1.6 EXISTING DEVELOPMENT IN THE PAPA

Since 2000, most natural gas development in the PAPA has been along the Anticline Crest, which is approximately 2 to 3 miles wide, 25 to 30 miles long, and centered along the length of the PAPA. The Proponents are proposing long-term development within the Anticline Crest as well as continued exploration off the Anticline Crest. As of November 2006, there were approximately 642 producing wells on 340 well pads in the PAPA. Of these, 613 producing wells on 285 well pads were drilled after issuance of the PAPA ROD (BLM, 2000b). There were 26 drilling rigs operating in the PAPA at the end of 2006.

1.7 PROPOSED ACTION

The Proponents have proposed a long-term plan for continued development of the PAPA. Their proposal includes up to 4,399 new producing wells that would be drilled from 250 new well pads and from expansion of existing well pads. There would be no more than 600 total well pads in the PAPA. In proposing concentrated and year-round development (construction, drilling, completion, and production), the Proponents are requesting exception from BLM's seasonal restrictions (condition of approval or lease stipulation) within certain areas of the PAPA that coincide with big game (mule deer and pronghorn) crucial winter habitats and greater sage-grouse seasonal habitats.

The Proponents estimate that surface disturbance would continue through 2023, and would consist of 12,885 acres of initial disturbance with a life-of-project (LOP) disturbance of 4,012 acres. This disturbance would be in addition to the current existing wellfield disturbance in the PAPA of 4,835 acres. Project components consist of new well pads, expansion of existing well pads, production equipment, gas gathering pipelines, access roads, and other ancillary facilities. Some of the Proponents are proposing to install additional liquids gathering systems, resulting in most of the producing wells in the PAPA being connected to a liquids gathering system. This would result in a reduction of truck traffic required to haul condensate and produced water. Some of the Proponents are proposing emission reductions, thereby reducing impacts to air quality and air quality related values (AQRVs) in nearby wilderness areas. Two gas sales pipelines are proposed that would transport natural gas from the PAPA to gas processing plants in southwest Wyoming. The BLM has identified three new pipeline corridors that would contain the gas sales pipelines. An expansion of the Granger Gas Plant is also proposed and air quality impacts associated with the expansion are analyzed in this document.

1.8 PURPOSE AND NEED

The purpose and need of the BLM is to act upon the Proponents' proposal to revise the PAPA ROD to expand the level of development by drilling 4,399 new producing wells and to relax seasonal restrictions in certain areas. This would be done with compensating protections for wildlife through limitation of activity in other areas and additional mitigation measures in and outside of the PAPA. It is also to consider appropriate well spacing in light of determinations of well spacing made by the Wyoming Oil and Gas Conservation Commission (WOGCC).

The proposal would allow for the development of additional gas resources from the highly productive PAPA while protecting resources, including big game (pronghorn and mule deer) and greater sage-grouse with less impact from production traffic levels and the stability of the drilling rig fleet and associated workforce than caused by current seasonal restrictions.

1.9 RELATIONSHIP TO NEPA AND BLM POLICY

The PAPA EIS process was completed in 2000 in compliance with CEQ Regulations for Implementing the Procedural Provisions of NEPA (CEQ, 1978). CEQ described several situations in which federal agencies would prepare supplements to either a DEIS or FEIS (40 CFR §1502.9(c)) if "*the agency makes substantial changes that are relevant to environmental concerns or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts*." In other situations, agencies may prepare supplements to existing documents if they determine that the purposes of NEPA would be furthered by doing so.

To the extent possible and appropriate, the BLM supports the use of existing environmental analyses to address impacts of a proposed action as described in Handbook H-1790-1 (BLM, 1988a). Supplements to existing NEPA documents are prepared when additional environmental analyses are needed. The Handbook specifically advises that the *"relationship between the supplement and the existing EIS is lateral, i.e., the proposed action and alternatives are analyzed to the same level of specificity and detail*."

The guidance referenced above cannot be applied to this document because the Alternatives analyzed in the PAPA EIS were projections of various development possibilities with incomplete information available regarding 1) the extent of the mineral resource, 2) the pace of development over time, 3) the geographic extent and intensity of development, and 4) environmental impact to multiple resources. The BLM now has substantial documentation for each of these four issues associated with natural gas development in the PAPA.

Information now available (which was uncertain in nature during preparation of the PAPA EIS) is used in this document to describe the Affected Environment (Chapter 3) and to analyze the Environmental Consequences (Chapter 4) of the Proponents' Proposed Action and other Alternatives. The current level of natural gas development in the PAPA has been inventoried and is described in Chapter 2. The inventory provides the foundation for understanding the current status of each resource included in Chapter 3 and is the basis for evaluating the impacts of each Alternative in Chapter 4. The current inventory of development and associated impact, coupled with the specificity of the Proponents' proposal, allows for the environmental analysis in this document to be more specific and detailed than the environmental analysis in the PAPA EIS.

1.10 CONFORMANCE WITH BLM'S EXISTING RESOURCE MANAGEMENT PLANS

Policies for development and land use decisions within the PAPA are contained in the draft and final Pinedale Resource Area (now referred to as the PFO) RMP (BLM, 1988b), the Green River Resource Area (now referred to as the Rock Springs Field Office - RSFO) RMP (BLM, 1997), and the Kemmerer Resource Area (now referred to as the Kemmerer Field Office - KFO) RMP (BLM, 1986). These three RMPs allocate which lands and/or minerals are appropriate for leasing and provide development guidelines. The RODs indicate which federal minerals will be made available for orderly and efficient development, and that all minerals actions will comply with goals, objectives, and resource restrictions (mitigations) required to protect other resource values. The components selected and approved for the PAPA must be in conformance with the RMPs.

PFO RMP. 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 the objectives and other actions that are provided for in the plan. A 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 PFO RMP allows for exceptions to restrictions, including big game and greater sage-grouse restrictions. Applications for rights-of-way and other land use authorizations will be considered on a case-by-case basis. They will be processed consistent with the objectives of the PFO RMP and will include any necessary mitigation requirements, offset retrogression, or displacement of natural resource and economic values.

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 Proponents have proposed off-site mitigation aimed at habitat enhancement linked to various levels of authorized surface disturbance. Three of the five Alternatives presented in Chapter 2 (Alternative B, Alternative C, and Alternative D) include extensive provisions for off-site mitigation. BLM has determined that the Alternatives analyzed in this Final SEIS are consistent with the guidelines and objectives of the PFO RMP.

RSFO 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. Concerning rights-of-way, the RSFO RMP states that public lands will be made available throughout the planning area for rights-of-way, permits, and leases. The planning area, with the exception of defined exclusion and avoidance areas, will be open to the consideration of granting rights-of-way. BLM has determined that all Alternatives analyzed in this Final SEIS comply with the applicable decisions, terms, and conditions of use in the RSFO RMP.

KFO RMP. The KFO RMP states that all public lands within the resource area have been reviewed and have been determined to be suitable for oil and gas leasing and development subject to certain stipulations. Resource management and protection stipulations will be developed and implemented on an "as needed" basis to prevent undue adverse impacts to other resource values. Further, rights-of-way will be issued incorporating surface reclamation stipulations (and other mitigating measures). Restrictions and mitigating measures may be modified on a case-by-case basis. BLM has determined that the Alternatives analyzed in this Final SEIS are in conformance with the KFO RMP objectives.

1.11 AUTHORIZING ACTIONS, RELATIONSHIPS TO STATUTES AND REGULATIONS

BLM is not the only agency that must issue approvals for the Proponents’ proposal. A list of permits, approvals, and authorizing actions necessary to construct, operate, maintain, and abandon project-related facilities is provided in Table 1.11-1. The PAPA EIS contains complete descriptions of the regulatory programs listed in Table 1.11-1, as well as their applicability to oil and gas activities in the PAPA. For additional information regarding these regulatory programs, please refer to the PAPA EIS.

Table 1.11-1
Permits, Approvals, and Authorizing Actions Necessary for Construction, Operation, Maintenance, and Abandonment of the Proposed Action and Alternatives[1]

Issuing Agency/Permit Name	Nature of Permit/Approval	Authority
Bureau of Land Management Permit to Drill, Deepen or Plug Back (APD/Sundry process)	Controls drilling for oil and gas on federal onshore lands	Mineral Leasing Act of 1920 (30 U.S.C. 181 *et seq*.); 43 CFR §3162
Rights-of-way Grants and Temporary Use Permits	Rights-of-way grants on federal lands	Mineral Leasing Act of 1920 as amended (30 U.S.C. 185); 43 CFR §2880
Rights-of-way Grants and Temporary Use Permits	Rights-of-way grants on federal lands	Federal Land Policy and Management Act of 1976 (43 U.S.C. 1761 - 1771); 43 CFR §2800
Antiquities, Cultural, and Historic Resource Permits	Issue antiquities and cultural resources use permits to inventory, excavate or remove cultural or historic resources from federal lands	Antiquities Act of 1906 (16 U.S.C. 431-433); Archaeological Resources Public Protection Act of 1979 (16 U.S.C. 470aa - 47011); 43 CFR §3; Section 106 of the National Historic Preservation Act
Approval to Dispose of Produced Water	Controls disposal of produced water from federal leases	Mineral Leasing Act of 1920 (30 U.S.C. 181 *et seq*.); 43 CFR §3164; Onshore Oil and Gas Order No. 7
U.S. Army Corps of Engineers Section 404 Permit (Nationwide and Individual)	Controls discharge of dredged or fill materials into waters of the United States	Section 404 of the Clean Water Act of 1972 (33 U.S.C. 1344)
U.S. Fish and Wildlife Service Consultation Process, Threatened and Endangered Species	Biological Assessment	Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. et seq.)
Wyoming Department of Environmental Quality Water Quality Division Notice of Intent - Storm Water Discharge Permit Temporary Discharge Permits	Controls off-site storm water runoff from construction activities resulting in 1 acre or more of disturbance	Wyoming Environmental Quality Act; Section 405 of the Clean Water Act (40 CFR §122, 123, and 124); WDEQ Water Quality Rules and Regulations, Chapters 1, 2, and18
Air Quality Division Permits to construct and operate Notice of Installation	Regulates emissions from project components Notification of potential emissions from production equipment	Wyoming Air Quality Standards and Regulations Oil & Gas Production Facilities Chapter 6, Section 2 Permitting Guidance
Wyoming Department of Transportation Oversize and Overlength Load Permits	Permits for oversize, overlength, and overweight loads	Chapters 17 and 20 of the Wyoming Department of Transportation Rules and Regulations
Utility Permit	Highway pipeline crossing	Title 12: Code of Civil Procedures, Chapter 26: Eminent Domain
Access Permit	Highway access construction	Rules and Regulations for Access Driveways as Approved by the Wyoming Highway Commission

Issuing Agency/Permit Name	Nature of Permit/Approval	Authority
Wyoming Oil and Gas Conservation Commission Permit to Drill, Deepen or Plug Back (APD process)	Regulates drilling of all oil and gas wells in the state	WOGCC Regulations Chapter 3, Section 8. W.S. 30-5-104 (d)(i)(C). W.S. 30-5-115
Well location (part of the APD process)	Regulates downhole well location of all oil and gas wells by reservoir or pool	WOGCC Rule: Chapter 3 Section 2, W.S. 30-5-109
Protection of surface waters and productive formations (part of APD process)	Provides general drilling, casing, and cementing rules for oil and gas wells	WOGCC Rule: Chapter 3, Section 22
Well control (part of APD process)	Provides requirements for blowout preventers	WOGCC Rule: Chapter 3, Section 23
Authorization approving drilling and spacing units	Regulates well spacing and pooling of interests by reservoir or pool	W.S. 30-5-104(d)(ii)(F)(iv). W.S. 30-5-109(a),(b),(c) and (f)
Permit to drill to a nonstandard location	Provides for well relocation while maintaining existing well spacing	WOGCC Rule: Chapter 3, Section 3, W.S. 30-5-109
Permit to directionally drill	Provides the notification requirements for controlled directional drilling	WOGCC Rule: Chapter 3, Section 25
Plugging and abandonment of a well (applies to non-federal lands)	Provides procedures and regulates the plugging and abandonment of oil and gas wells	WOGCC Rule: Chapter 3, Section 18, Chapter 4, Section 2. W.S. 30-5-104 (d)(vi)(B)
Measurement of oil and gas production	Regulates the measurement and reporting of oil and gas production	WOGCC Rule: Chapter 3, Section 30 and 31, W.S. 30-5-104 (d)(vi)(B)
Permit to complete a well in multiple zones or pools (commingling)	Regulates the production of oil and gas from more than one pool in one well	WOGCC Rule: Chapter 3, Section 35
Authorization to flare or vent gas	Regulates the safe venting or flaring of gas to prevent waste	WOGCC Rule: Chapter 3, Section 40
Permit to use an earthen pit (applies to nonfederal lands)	Regulates construction, use and closure of noncommercial reserve, production and emergency pits on drilling and producing locations	WOGCC Rule: Chapter 4, Section 1, W.S. 30-5-104 (d)(vi)(A)
Spills and fires	Requires notification, with a prevention and cleanup plan, of accidental deaths, fires, or releases of 10 or more barrels of non-potable fluids that enter or threaten the waters of the State	WOGCC Rule: Chapter 4, Section 3
Workmanlike operations	Regulates the safety and environmental protection of well production facilities	WOGCC Chapter 4, Section 4
Permit underground disposal of water	Regulates the noncommercial underground disposal of non-potable water and oil field wastes	WOGCC Chapter 4, Section 5, W.S. 30-5-104 (d)(vi)(B)
Permit to close a natural gas processing facility	Regulates closure of infield gas gathering and processing facilities	WOGCC Rule: Chapter 4, Section 13 (b)

Issuing Agency/Permit Name	Nature of Permit/Approval	Authority
Wyoming Department of Employment Workers Safety and Compensation Division	Provides the rules and regulations governing the health and safety of employees and employers of oil and gas drilling and servicing, includes equipment spacing, lighting requirements, hours of operation and other items pertinent to pad size and design	W.S. 27-11-105
Wyoming State Engineer's Office Water Well Permit Temporary Industrial Use of Unappropriated Water S.W.1	Grant permit to appropriate groundwater Surface water withdrawal for hydrostatic testing	Wyoming State Statutes Section 41-3-938
Wyoming State Historic Preservation Office	Cultural resource protection	Section 106 of National Historic Preservation Act and Advisory Council Regulations (36 CFR §800)
Wyoming State Lands and Investments	Rights-of-way and easements on state lands	W.S. 36-9-118
Sublette County Planning and Zoning	Energy Pipeline Permit	
Planning and Zoning	Driveway Permit	Zoning and Development Regulations of Sublette County Section 7. Wyoming State Statutes Section 18-5-207
Planning and Zoning	Building Permits	

[1] This list is intended to provide an overview of key regulatory requirements that would govern project implementation under any Alternative. Additional approvals, permits, and authorizing actions could be necessary.

1.12 DECISIONS TO BE MADE BASED ON THIS NEPA ANALYSIS

This document supplements the existing PAPA DEIS (BLM, 1999a) through analysis and evaluation of the potential impacts of the approval of additional natural gas development in the PAPA. The BLM must decide whether or not to approve the Proponents' proposal. The BLM will base the decision, and the conditions of that decision, on the analyses and information contained in the SEIS and on information and comments provided to the BLM. After completing the SEIS process, a new ROD will be prepared and released that will supersede the PAPA ROD (BLM, 2000b). Although the ROD may approve modification of the Operators' development program, the BLM must analyze and approve each component of the project that involves disturbance of federal lands on a site-specific basis. The methods used to evaluate each surface-disturbing activity are the Application for Permit to Drill (APD) or rights-of-way grants/temporary use permits, which would be required before any construction could occur.