

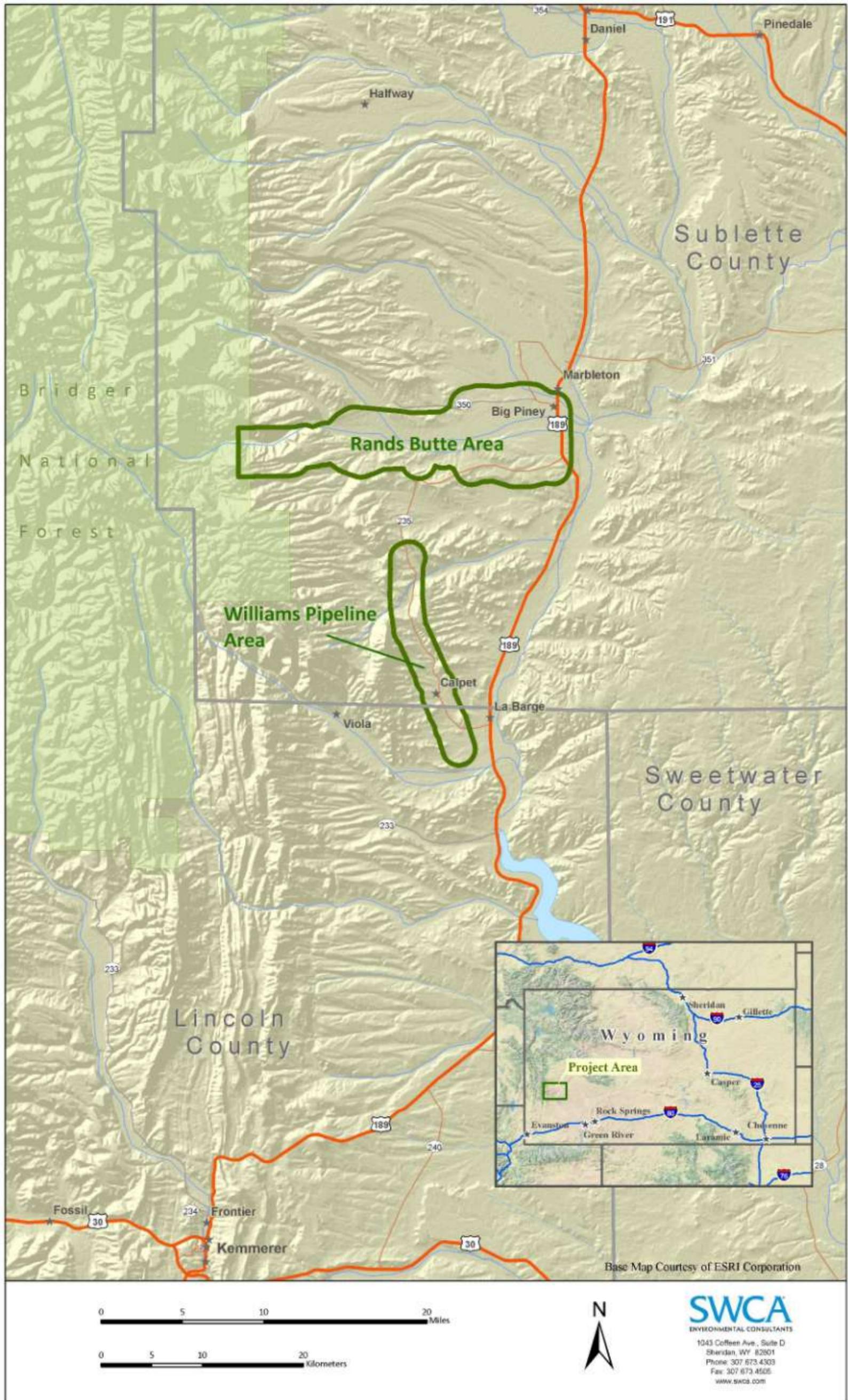
1.0 PURPOSE AND NEED

1.1 INTRODUCTION

Cimarex Energy (Cimarex) has applied to the Bureau of Land Management (BLM) Pinedale Field Office (PFO) for permits to drill on the established Riley Ridge federal unit and for associated rights-of-way (ROWs) lease applications in southwestern Sublette County and portions of Lincoln County, Wyoming (Map 1-1). The proposed gas development project is hereafter referred to as the Rands Butte Gas Development Project (Project), and the project area is referred to as the Rands Butte Project Area (RBPA). The Project is a natural gas and helium gas resource development project involving state, private, and BLM-managed land. The Project would implement and test new technological advances in processing the complex gas mixture composed of hydrogen sulfide (H₂S), carbon dioxide (CO₂), natural gas, and helium from the Madison Formation. The life of the Project is estimated to be 40 years.

Cimarex owns several existing gas wells in the Riley Ridge Unit, one of several federal gas development units in the RBPA. In 2008, Cimarex was granted a Wyoming Special Use Lease for development of a new Methane and Helium Recovery Facility (M&HRF) to be located on State of Wyoming land within the RBPA. Cimarex is now seeking approval of BLM Applications for Permit to Drill (APDs) for three additional natural gas wells, an acid gas injection well, and BLM ROW permits in support of the Project.

Development of fluid minerals of the Riley Ridge Unit was previously analyzed by the BLM in the Riley Ridge Unit Environmental Impact Statement (EIS) and Record of Decision (ROD) (BLM 1984). The BLM has determined that the 1984 EIS does not adequately evaluate the expansion of hydrocarbon development that is proposed by Cimarex and that additional analysis is required to fully comply with the Council on Environmental Quality (CEQ) guidelines (BLM 2005). BLM Handbook H-1790-1, National Environmental Policy Act (NEPA) Handbook (BLM 2008a), and Department of the Interior (DOI) guidance (516 Department Manual 1-7) provide further instructions for compliance with the CEQ regulations. In response to the Cimarex proposal and in compliance with the NEPA and other implementing regulations, the BLM has prepared this Environmental Assessment (EA) to analyze the effects of the Project's proposed development on the natural and human environment in the RBPA to determine if significant effects may occur as a result of the Federal Actions under consideration.



Map 1-1. Rands Butte Project Area (RBPA) location map with Rands Butte Area and Williams Pipeline Area.

This EA has been prepared in accordance with the requirements of the CEQ NEPA regulations and the BLM NEPA Handbook. Cimarex has proposed several Project components that fall within BLM jurisdiction, including three new gas wells; recompletion of an existing federal gas well; raw gas flowlines associated with the new and existing gas wells; an acid gas (H₂S/CO₂) injection well; acid gas (H₂S/CO₂) flowline; a natural gas pipeline; a helium pipeline; an underground fiber optics data transmission cable; underground electrical distribution lines; high-voltage 230-kilovolt (kV) electrical transmission line; market gas pipeline expansion loop; snow control structures; and ambient air monitoring and weather station (AAM&WS).

In addition to proposed actions that are within BLM decision jurisdiction, the Project also contains private and state actions that are connected to the BLM action, but are outside of BLM jurisdiction or decision authority. Connected actions are those actions that are “closely related” and “should be discussed” in the same NEPA document (40 CFR 1508.25 [a][1]). These “connected actions” are therefore described and evaluated in the NEPA document.

The connected actions that are closely related include; a M&HRF on state land; a produced water injection well and flowline on state land; an HLF on private land; and an equipment staging and storage yard on private land.

The NEPA process includes consultation, coordination, and cooperation with other interested parties during EA preparation. The following federal, state, and local agencies have been involved in identifying issues for analysis during scoping:

- BLM – lead agency
- U.S. Fish and Wildlife Service (USFWS)
- Wyoming Department of Environmental Quality (WDEQ)
- Wyoming Governor’s Planning Office
- Wyoming State Historic Preservation Office (SHPO)
- Wyoming Game and Fish Department (WGFD)
- Wyoming Department of Agriculture
- Sublette County Commissioners
- City of Pinedale
- Town of Big Piney
- Town of Marbleton

Other steps in the NEPA process include the following:

- Develop reasonable alternatives to the proposed action, including alternatives that may be outside the BLM’s jurisdiction as long as they are practical, feasible, and consistent with existing decisions and statutory and regulatory requirements.

- Eliminate alternatives that do not require detailed analysis.
- Gather data and analyze the environmental consequences of the reasonable alternatives.
- Describe direct, indirect, short-term, long-term, and cumulative environmental consequences and irretrievable commitments of resources that may result from the BLM actions and closely connected actions related to the Project.
- Disclose to the public any direct, indirect, short-term, and long-term environmental consequences that may result from private and state jurisdictional components of the Project over which the BLM has no decision authority.
- Disclose to the public the BLM decision regarding the Project.
- Identify ways that environmental effects can be avoided or reduced through mitigation measures or monitoring.

If BLM determines that BLM actions would not result directly, indirectly, or cumulatively to effects with “sufficient context and intensity” to indicate significant impacts, a Finding of No Significant Impacts (FONSI) may be issued along with a Decision Record (40 CFR 1508.13). The FONSI would explain the reasons that an action will not have a significant effect on the human environment.

However, if BLM determines through the NEPA analysis that BLM actions would result in significant direct, indirect, or cumulative effects to the context or intensity of relevant issues in the physical, biological, or human environment, then CEQ guidelines indicate that an EIS must be prepared to document any significant adverse impacts.

1.2 OVERVIEW OF THE RBPA

The RBPA is located in southwestern Sublette County, west of Big Piney, and northeastern Lincoln County, Wyoming, as shown in Map 1-1. Two distinct areas are identified for the Project: the Rands Butte Area, which is west of Big Piney, and the Williams Pipeline Area, which is northwest of La Barge, as shown in Map 1-1. U.S. Highway 189 (U.S. 189) defines the eastern extent of the RBPA, and the western extent is approximately 1 mile west of the eastern boundary of the Bridger-Teton National Forest. The towns of Marbleton, Big Piney, and La Barge are the only municipalities near the RBPA.

The RBPA includes a total of 73,713 acres of mixed federal, state, and private lands. Of the total area, approximately 36,045 acres (48.9%) are administered by the BLM; 1,909 acres (2.6%) are administered by the U.S. Forest Service (USFS); 3,676 acres (5.0%) are administered by the State of Wyoming; and the remaining 32,083 acres (43.5%) are private land.

The RBPA is a portion of the Greater Big Piney-LaBarge (GBPLB) oil and gas development area, with four producing oil and gas fields: Lake Ridge, Riley Ridge, Fogarty, and Tip Top. BLM management of the surface and mineral estate within the RBPA was analyzed in the PFO Resource Management Plan (RMP) EIS and ROD (BLM 2008b). Management

Objectives for Oil and Gas identified in Section 2.3.6 of the Pinedale RMP ROD indicate that the federal objective for traditional leasing areas is to make federal lands and mineral estate available for oil and gas leasing and exploration in concert with maintaining the viability of non-oil and gas resource values and land uses (BLM 2008b).

1.3 PURPOSE AND NEED

The BLM's Purpose and Need of the Project is to:

- allow implementation and testing of new technological advances in processing the complex sour gas mixture found in federal gas reserves within the Madison Formation;
- help meet industrial need for a steady new federal supply of helium, consistent with the BLM Helium Reserve Program;
- allow development of federal natural gas resources to meet the public's continuing economic demands for a dependable and affordable supply of natural gas, while giving due consideration to the protection of other resource values; and
- facilitate the leaseholder's rights to develop oil and gas resources within their federal mineral leases in accordance with the Mineral Leasing Act of 1920, as amended.

The primary proponent need for the Project is to implement and test new technological advances in the safe processing of federal gas reserves within the Madison Formation underlying the RBPA. The complex gas mixture of the Madison Formation is composed of H₂S, CO₂, natural gas, helium, and other gases. The Project would test a new cryogenic gas processing technology to separate economical gases from CO₂ and H₂S, and it would also allow the project proponent the opportunity evaluate feasibility, efficiency, and economy of immediately re-injecting approximately 141.2 MMSCFD of the unwanted acid gases back into the Madison Formation without further processing.

The Madison Formation is a large, proven resource for natural gas and helium. Development of this reserve has been hampered by the presence of high concentrations of CO₂, a greenhouse gas, and toxic H₂S gas that are, in combination, difficult and costly to separate, treat, and dispose of safely. The proposed Project has identified new technologies to overcome problems of gas separation and recovery of economic gases. The BLM acknowledges a need for implementing and testing new technologies for development of Madison Formation federal mineral reserves in order to allow development of economic gases, while protecting the public from hazardous gas exposure, reducing land disturbance normally associated with sour gas production, and reducing emissions of air pollutants and greenhouse gases during gas processing and transport.

The secondary purpose of the Project is to provide natural gas and helium products to the consumer, as provided for in the PFO RMP. The requested Federal Action is needed to provide access across federal lands managed by the BLM and allow development of minerals within an existing federal unit (Riley Ridge), according to the principles of multiple use, while maintaining the rights and obligations of other users and protecting resources in the

RBPA. The need for the proposed Project is established by the BLM's responsibility to allow development of federal minerals by the leaseholder under the Mineral Leasing Act of 1920 and to consider a ROW request for legal access under the Federal Land Policy and Management Act of 1976 (FLPMA). The Project is needed to bring a steady new supply of commercial helium and natural gas to market to meet current and future demands for scarce natural resources.

Helium, which is currently in short supply nationally and internationally, is an inert gas essential to aerospace and research industries. The world's supply of helium is primarily recovered from natural gas reserves in the federal mineral estate and is managed by the BLM Helium Reserve Program. The Project would produce industrial helium in accordance with the mission of the BLM Helium Reserve Program. In 2003, the BLM identified the Riley Ridge area as a major helium-bearing gas field with 60,951 million standard cubic feet (MMSCF) of reserves, out of U.S. total measured reserves of 99,772 MMSCF (BLM 2003). This makes the Riley Ridge account for approximately 61% of the measured US total reserve. Exxon is currently the only producer from this reserve, producing approximately 1.4 billion cubic feet per year out of an annual average U.S. production of 3.8 billion cubic feet per year, or approximately 36%. The Rands Butte production is estimated to add approximately 100 MMcf per year, or approximately 2.5%, to the U.S. production volume (see Appendix A Helium Resource Significance Overview for more information).

The proposed development would provide additional natural gas to help meet public need. Drilling and production from the proposed wells have been previously authorized in the Riley Ridge Gas Development EIS and ROD (BLM 1984) and is in conformance with the Pinedale RMP and ROD (BLM 2008b). The Project would result in a maximum production of approximately 39 million cubic feet per day (MMSCFD) of dehydrated natural gas.

Development of existing federal oil and gas leases is an integral part of the PFO RMP management objective for oil and gas, as well as the BLM's oil and gas leasing program under the authority of the Mineral Leasing Act of 1920, as amended; the Mining and Mineral Policy Act of 1970; the FLPMA; the National Materials and Minerals Policy, Research, and Development Act of 1980; and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. National mineral leasing policies recognize the right of leaseholders to develop federal mineral resources to meet the public's continuing economic demands, so long as undue and unnecessary environmental degradation does not occur and due consideration of other resources of value is given.

1.4 BLM ACTIONS, CONNECTED ACTIONS, AND THE DECISION TO BE MADE

1.4.1 BLM Actions

Specific Project components are considered Federal Actions if they are proposed to partially or completely cross or be located on BLM-administered lands, or require a federal permit. Cimarex has proposed that several Project components, described in greater detail in Chapter 2 of this document, be authorized as BLM actions, including:

- three new directionally drilled Madison (sour) gas wells located on federal land;
- recompletion of an existing federal gas well on private land;
- raw gas flowlines located partially on federal land;
- an acid gas (H₂S/CO₂) injection well located on federal land;
- acid gas (H₂S/CO₂) flowline located partially on federal land;
- natural gas pipeline located partially on federal land;
- helium pipeline located partially on federal land;
- high-voltage 230-kV electrical transmission line located partially on federal land;
- market gas pipeline located partially on federal land;
- fiber optics data transmission cable located partially on federal land;
- electrical distribution lines located partially on federal land;
- snow control structures to be located partially on federal land;
- AAM&WS located on federal land; and
- a 69-kV transmission line that starts on, and crosses, federal land before entering private land and connecting an existing substation with the HLF.

BLM actions also extend to a recent permit to drill a single well bore into the Madison Formation for purposes of obtaining additional data. The intent of this initial well bore is to collect additional formation structure and pressure data to better refine the formation's capability for re-injection of H₂S/CO₂ gasses in support of the NEPA analysis and the Wyoming Oil and Gas Conservation Commission (WOGCC) injection well permitting processes. Applicable portions of the Cimarex Application for Permit to Drill are included in the Rands Butte EA Volume 2, Appendix E and Appendix H. BLM approved this permit in 2008, however, drilling completion was delayed due to big game winter stipulations and slower than anticipated drilling times. The data is not available for consideration in the Rands Butte EA. Once the well is completed, the information will be provided to the BLM and the WOGCC for review, per the permitting requirements.

No new roads or drilling pads would be constructed for the proposed Project. The Project would use existing upgraded and two-track roads for access to the proposed pipeline and overhead transmission line ROWs, wells, and other facilities.

1.4.2 Connected Actions

Connected actions are those actions that are “closely related” and “should be discussed” in the same NEPA document (40 CFR 1508.25 [a][1]). In addition to components listed above that are completely within BLM decision jurisdiction, the proposed Project also contains interdependent parts of the larger action that are private and state actions that are not within BLM jurisdiction or decision authority. These “connected actions” are also considered and evaluated in the NEPA document. Guidance contained in the BLM NEPA Handbook indicates that if the non-Federal Action cannot be prevented by BLM decision-making and its

effects cannot be modified by BLM decision-making, the effects of the non-Federal action may still need to be analyzed in the cumulative effects analysis for BLM Action, if they have a cumulative effect together with the effects of the BLM action (BLM 2008a, Section 6.8.3).

The Project connected actions which are outside of BLM jurisdiction to decide, modify, or affect, include:

- a privately owned M&HRF on state land;
- a produced water injection well and associated flowline on state land;
- a privately owned HLF on private land; and
- an equipment staging and storage yard on private land.

The connected actions are also described in greater detail in Chapter 2. Although these connected actions can proceed without federal authorization, these private and state activities are included in this NEPA analysis for purposes of disclosure of any potential impacts to the public, either separately or in combination with BLM actions, or as part of cumulative impacts from existing and reasonable and foreseeable future activity in the cumulative impact analysis area (CIAA).

1.4.3 Decision to be Made

The decision to be made by the BLM is for the approval, modification, or denial of Project components that are within the BLM's jurisdiction. The BLM has decision jurisdiction over facilities that are closely interconnected and interrelated actions that are partially located on federal land, as in the case of federal pipelines that are primarily located on federal land, but cross private or state land.

The BLM has no decision jurisdiction over the connected actions and facilities under consideration for development on State of Wyoming or private lands. As such, these non-Federal Actions will be considered in the NEPA analysis to fully evaluate and disclose potential impacts from the entire proposed Project and potential cumulative effects from these interdependent connected actions, along with other reasonable and foreseeable future federal and non-Federal actions in the general RBPA.

If, after evaluating and disclosing the impacts of BLM actions and impacts of connected private and state actions, BLM determines that BLM actions would not result directly, indirectly, or cumulatively in effects with "sufficient context and intensity" to indicate significant impacts, a FONSI may be issued along with a Decision Record. The FONSI would explain the reasons that an action will not have a significant effect on the human environment.

However, if BLM determines through the NEPA analysis that BLM actions would result in significant direct, indirect, or cumulative effects to the context or intensity of relevant issues in the physical, biological, or human environment, then CEQ guidelines indicate that an EIS must be prepared to document any significant adverse impacts.

1.5 FEDERAL AND OTHER RELEVANT REGULATIONS AND PERMITS

The Federal Action under consideration includes oil and gas drilling permits, as well as ROW grants for associated facilities. Oil and gas leases are issued by the BLM consistent with regulations regarding federal oil and gas leasing and operations (43 CFR Parts 3100 and 3160, respectively). Stipulations and management actions may be added as terms of a lease at the time of lease issuance to reflect management guidance established in the applicable RMP and ROD (BLM 2008b).

The document that directs management on federal lands within the PFO is the 2008 approved ROD for the Pinedale RMP, as amended. Specific management objectives for ROW applications for electrical transmission lines and pipelines are not specified in the Pinedale RMP and ROD except as standard practices, Best Management Practices (BMPs), and guidelines for surface-disturbing activities.

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).

In addition, numerous state and local regulations must be met, and several permits and other approvals would be required at various stages in the Project. 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. 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.

Table 1-1. Major Federal, State, and Local Permits, Approvals, and Authorizing Actions for the Rands Butte Gas Development Project.

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
	Native American 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

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Agency	Permit, Approval, or Action	Authority
Bureau of Land Management (BLM)	On federal onshore lands: permit to drill, deepen, or plug back (Application for Permit to Drill [APD]/Sundry process); authorization for flaring and venting of natural gas; plugging and abandonment of a well	Mineral Leasing Act of 1920 (30 United States Code [USC] 181 et seq.); Title 43 Code of Federal Regulations (CFR) Part 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 or federally permitted undertakings	Antiquities Act of 1906 (16 USC 431–433); Archaeological Resources Protection Act of 1979 (16 USC 470aa–470ll); Preservation of American Antiquities (43 CFR 3); National Historic Preservation Act (NHPA) Section 106 (36 CFR 800)
	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
	Authority over oil and gas drilling and recovery	Mineral Leasing Act of 1920 (30 USC 181 et seq., 53 FR 17363)
	Authority to approve the drilling of wells	Onshore Order #1 (43 CFR 3162)
	Subsequent well operations provide for authorized officer review, approval, and oversight of proposals "for the redrilling, deepening, ... and conversion to injection."	43 CFR Subsection 3162.3-2
	Endangered species clearances on BLM-managed lands	Endangered Species Act of 1973, as amended (16 USC 1531 et seq.)
	Bureau of Reclamation	ROW grants and temporary use clearances on federal lands
U.S. Army Corps of Engineers	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)

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Agency	Permit, Approval, or Action	Authority
U.S. Fish and Wildlife Service	Coordination, consultation, and impact review on federally listed threatened and endangered species	Fish and Wildlife Coordination Act (16 USC 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)
U.S. Environmental Protection Agency	Spill Prevention, Control, and Countermeasure Plans	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	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 Department of Agriculture	Weed and pest control – county agency	Wyoming Weed and Pest Control Act (Wyoming Statute [WS] 11-5-102)
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	WS 37-1-101 et seq.
Wyoming Department of Environmental Quality (WDEQ) - Water Quality Division	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 permits for discharging wastewater 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)
	Permitting of underground injection wells	Safe Drinking Water Act (Section 1422 and 1425) Underground Injection Control Program (UIC) (40 CFR Sections 144-147)
WDEQ - Air Quality Division	Permits to construct and permits to operate	Clean Air Act; Wyoming Environmental Quality Act (WS 35-11-201 through 35-11-212)

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Agency	Permit, Approval, or Action	Authority
WDEQ - 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	Permits for oversize, overlength, and overweight loads	Chapters 17 and 20 of the Wyoming Highway Department Rules and Regulations
Wyoming Oil and Gas Conservation Commission (WOGCC)	Permit to use earthen pit (reserve pits) on nonfederal lands	WOGCC Regulations Chapter 4, Section 1: Pollution and Surface Damage
	Authorization for flaring or venting of gas	WOGCC Regulations Chapter 3, Section 40: Authorization for Flaring or Venting Gas
	Permit for Class II underground injection wells	WOGCC Regulations Chapter 4: Environmental Rules, Including Underground Injection Control Program Rules for Enhanced Recovery and Disposal Projects.
	Well plugging and abandonment	40 CFR 146; 40 CFR 147.2551
	Permit to drill, deepen, or plug back (APD process)	WOGCC Regulations Chapter 3, Section 8: Application to Drill or Deepen a Well
	Change in depletion plans	Wyoming Oil and Gas Act (WS 30-5-110)
	Minimum safety standards for oil and gas activities	WOGCC Regulations Chapter 3: Operational Rules, Drilling Rules
		Authority for the review and permitting of oil and gas disposal wells
Wyoming State Engineer's Office	Permits to appropriate groundwater (use, storage, wells, dewatering)	WS 41-121 through 147 (Form UW-5)
	Permits to appropriate surface water	WS 41-201 (Form SW-1)
Wyoming State Historic Preservation Office	Cultural resource protection, programmatic agreements, consultation	Section 106 of NHPA and Advisory Council Regulations (36 CFR 800)
Sublette County	Oil and gas permits	Office of Planning and Development
	Small wastewater permits	Office of Planning and Development
	County road use agreement	Office of Planning and Development

Agency	Permit, Approval, or Action	Authority
Sublette County	County road bore permits (if they will be crossing county roads at any point. May need DOT bore permits if crossing any state roads)	Road and Bridge Department
	Non-residential county building permits	Planning and Zoning

1.6 WYOMING BLM MITIGATION GUIDELINES AND PRACTICES FOR SURFACE-DISTURBING AND DISRUPTIVE ACTIVITIES

In addition to the applicable regulations and permits, the Wyoming BLM has adopted a standard set of guidelines and post-lease Conditions of Approval (COAs) that apply to all surface-disturbing activities on federal lands and minerals in Wyoming (Appendix A). These mitigation guidelines address a wide variety of environmental concerns. 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 determine if the exception is warranted. Standard Wyoming BLM mitigation guidelines are applied to all alternatives analyzed in this EA.

1.7 PUBLIC SCOPING

NEPA regulations (40 CFR 1500–1508) require the BLM to use an early scoping process to identify significant issues in preparation for impact analysis within the EA development process. The principal goal of public scoping is to allow and encourage public participation, including federal, state, and local government agencies, culminating in the public’s identification of issues, concerns, potential impacts, and potential mitigations that require detailed analysis in the EA. A proactive public scoping process has been implemented by the BLM for this proposed Project EA.

The purpose of scoping is to identify issues important to the Project EA. These issues would guide development of alternatives that are evaluated in the EA. The scoping process also provides an opportunity to educate the general public about the Project and allow the BLM to gauge the concerns of those who have a stake in the resources of the RBPA.

The scoping period began on September 10, 2008, with the publication of a Scoping Notice and invitation to a Project Open House on the Wyoming BLM website. The Scoping Notice and 118 individual letters were sent to federal agencies; state agencies and boards; local government; educational institutions, universities, and museums; Native American tribes; state and federal elected officials; trade groups; media; and livestock operators. The official scoping period ended on October 10, 2008, although the last scoping comment was received on November 3, 2008. The BLM accepted scoping comments during scoping meetings, and comments were also accepted via letter, fax, and electronic mail during the scoping period.

The Project Open House was held in Marbleton, Wyoming, on September 29, 2008. The meeting was held at the Marbleton Town Hall and included a brief presentation of the proposed Project with maps and information regarding relevant resources located in the RBPA. BLM resource specialists and representatives from Cimarex were available to answer

questions from the public. Thirty-five individuals from the public registered at the scoping meeting. During the scoping period, the BLM received 64 substantive comments from nine respondents.

A Scoping Document was prepared and is available through the PFO. For organization and analysis purposes, comments were categorized into the following 17 topic areas:

- | | |
|---------------------------------|----------------------|
| Air Quality | Noise |
| BLM General Management Policy | Policy/NEPA |
| BMPs/Reclamation | Ranching and Grazing |
| Cultural and Historic Resources | Technical Issues |
| Cumulative Impacts | Transportation |
| Development Practices | Vegetation/Weeds |
| Health and Human Safety | Water Resources |
| Light Pollution | Wildlife Resources |
| Monitoring and Mitigation | |

1.8 KEY ISSUES AND BLM NEPA RESPONSE

Key issues with special relevance to the NEPA process were identified during scoping. These key NEPA issues were identified for their potential for Project effects, lack important data for a thorough analysis of effects, or because they may suggest relevant alternatives for analysis. In addition, the BLM has identified actions to be undertaken during the NEPA process to address these key issues, which are identified in Table 1-2, along with a reference to the sections in this EA where they are addressed.

Table 1-2. Key Issues and Concerns Identified During Project Scoping.

Issue	Description of Issue	Response
1. Socioeconomics	Potential effects to local communities may include: <ul style="list-style-type: none"> • Demand for short-term housing may exceed local supply. • Demand for short-term medical, retail, and civic services may exceed local capabilities. • Need for expanded local government services may not have corresponding revenue or compensation. 	Section 4.12. Appendix A.

Issue	Description of Issue	Response
2. Air Quality	Potential issues include: <ul style="list-style-type: none"> ● Increased short-term emissions from drill rigs, equipment operation, crew truck operation, and tractor-trailer rigs carrying heavy loads. ● Potential increase in air quality constituents and measures such as increased haze and dust. ● Potential for increased emissions in Class I airsheds associated with nearby wilderness areas. ● Short-term or long-term increase in greenhouse gas emissions. ● Acidification of high mountain lakes and local waters. 	Section 4.15. Alternative 4. Appendix D.
3. Potential Conflicts with Livestock Management Operations	Potential conflicts with livestock management could include: <ul style="list-style-type: none"> ● Reduced forage availability. ● Increased livestock disturbance and harassment. ● Increase in risk of Brucellosis infection in cattle herds. 	Section 4.9. Alternative 2. Appendix C. Appendix G.
4. Potential Impacts to Sensitive Soils	Potential issues could include: <ul style="list-style-type: none"> ● Surface disturbance in shallow and steep slopes may reduce reclamation potential and increase runoff. ● Increased impermeable surfaces may increase runoff and stream sedimentation. ● Increased road use during construction may lead to higher erosion rates. 	Sections 4.2 and 4.2.1. Alternative 3. Appendix G.
5. Wetlands and Riparian Areas	Potential issues may include: <ul style="list-style-type: none"> ● Disturbance in hydrophytic soils may lead to wetland loss. ● Pipelines crossing streams may degrade wetlands and riparian vegetation. 	Sections 4.6 and 4.6.1. Alternative 3. Appendix G.
6. Surface Water and Groundwater Resources	Potential issues may include: <ul style="list-style-type: none"> ● The Project might cause changes in water quality and sedimentation in Spring Creek, Beaver Creek, South Piney Creek, or Middle Piney Creek. ● Water use during drilling and completion could lead to surface water or groundwater depletions. ● Potential changes in groundwater aquifers due to changes in hydrostatic pressure from water injection well. ● Potential for cross-contamination of aquifers with hydrocarbon contamination. 	Section 4.4. Appendix G. Appendix H.

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Issue	Description of Issue	Response
7. Wildlife & Aquatic Habitats	Potential issues may include Project effects on wildlife habitats including: <ul style="list-style-type: none"> ● Short- or long-term reduction in big game crucial winter range. ● Long-term noise and traffic effects in wildlife habitats. 	Section 4.8; Alternatives 2 and 4. Appendix G.
8. Threatened or Endangered Species	Direct and indirect effects may include: <ul style="list-style-type: none"> ● Potential depletions to the Colorado River. ● Potential effects on downstream listed, threatened, and endangered species. ● Potential effects on any nearby designated critical habitats, which must be maintained in compliance with the Endangered Species Act. ● Loss of nesting and brood rearing habitats for Greater sage-grouse. 	Section 4.7. Rands Butte Biological Assessment.
9. Sensitive Wildlife Species	Direct and indirect effects may include: <ul style="list-style-type: none"> ● Disruption of big game migration patterns. ● Disruption of raptor nesting and winter roosting near the Project. ● Displacement of elk into adjacent livestock ranges. ● 	Section 4.7.2. Alternative 2; Alternative 3; Alternative 4. Appendix C. Appendix G.
10. Cultural Resources and Historic Trails	Potential issues may include: <ul style="list-style-type: none"> ● Changes in the setting and character of sites eligible for the National Register of Historic Places. ● Potential visual impacts within 3 miles of the Lander Road Historic Trail. 	Section 4.18. Appendix G.
11. Visual Resources	Potential issues may include: <ul style="list-style-type: none"> ● Visual impacts to recreation areas and other areas with sensitive viewsheds. ● Changes in perception of the visual landscape such that it becomes predominantly an industrial landscape. 	Section 4.14. Alternatives 3 and 4. Rands Butte Visual Resource Assessment.
12. Human Health and Safety	Potential issues may include: <ul style="list-style-type: none"> ● The potential for accidental release of hazardous and toxic substances into the environment. 	Section 4.10. Appendix E. Appendix F.
13. Energy Use and Conservation	Issues of energy use and conservation may include: <ul style="list-style-type: none"> ● Increase in regional coal-based electrical energy consumption. 	Alternative 4.

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Issue	Description of Issue	Response
14. Cumulative Effects	Potential cumulative effects when combined with neighboring oil and gas development projects may include: <ul style="list-style-type: none">● Increase in short- or long-term regional air quality deterioration.● Increase in short-term socioeconomic disruption.● Increase in long-term change from rural/agricultural to industrial landscape.● Short- and long-term disruption of elk migration patterns.● Loss of Proper Functioning Condition of area wetlands and riparian areas.	Appendix A. Appendix C. Appendix G.