

1.0 PURPOSE AND NEED

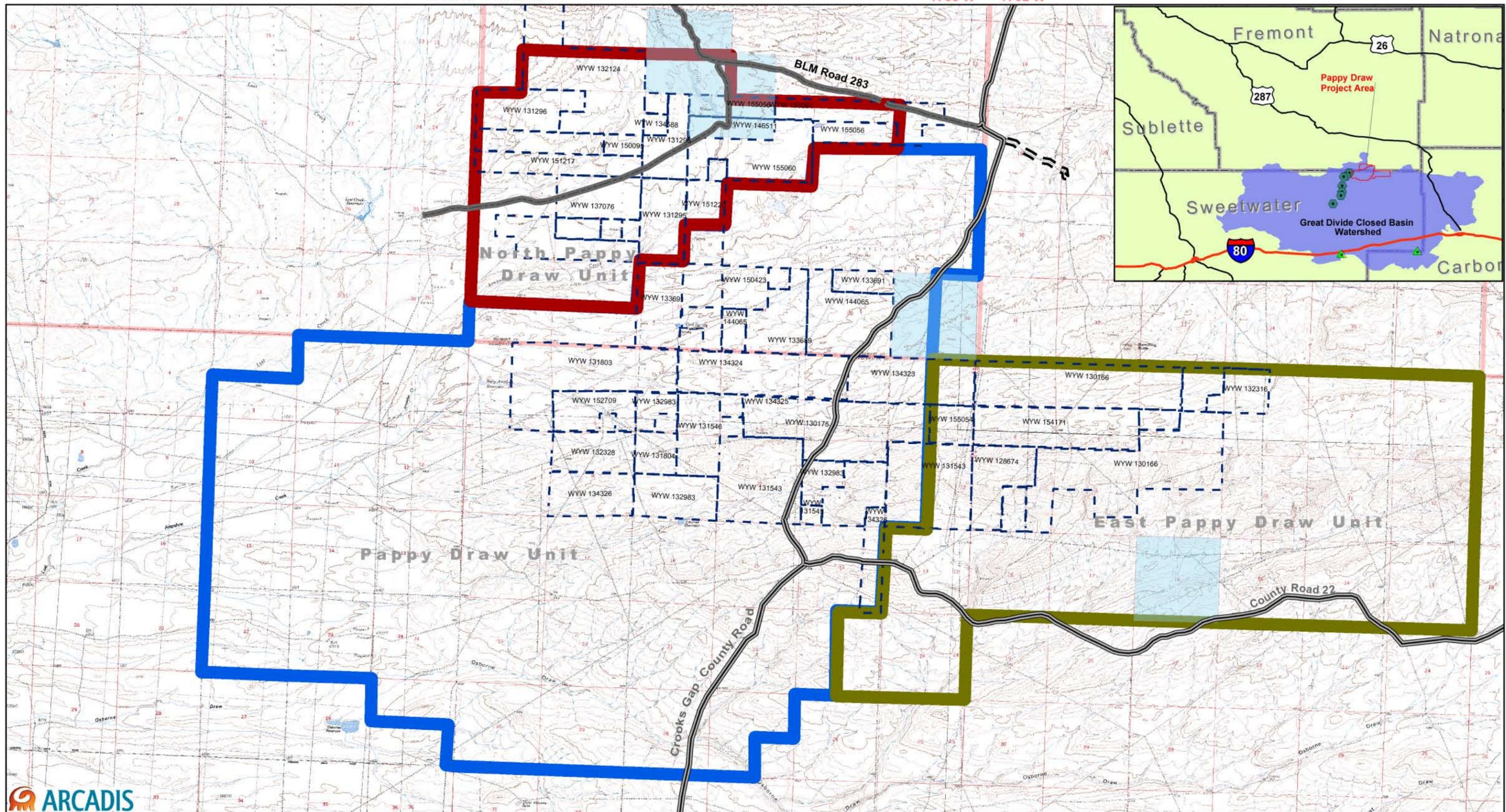
This section of the environmental assessment (EA) briefly describes the proposed project, the location of the proposed project, the purpose of and need for the proposed project, the environmental analysis process, and the issues and concerns that will be addressed during the environmental analysis process.

1.1 Introduction

The Pappy Draw exploratory coal-bed natural gas (CBNG) Pilot Project EA has been prepared to analyze a pilot CBNG development proposed by EnCana Oil and Gas (USA) Inc. (EnCana) on Bureau of Land Management (BLM) managed lands within three federal oil and gas exploration units: the Pappy Draw Unit (PDU); the East Pappy Draw Unit (EPDU); and the North Pappy Draw Unit (NPDU) (**Figure 1-1**) in Fremont and Sweetwater Counties, Wyoming. These exploration units were created by agreement between the BLM and lessees/operators based on common underlying geology and structure, exploration status, and development potential. This EA is a site-specific analysis of potential impacts that could result with the implementation of the proposed pilot project (proposed project), the no action alternative, a buried power alternative, and a combination overhead and buried power alternative (the hybrid power alternative). All four options, including the proposed project, are referred to as alternatives. The proposed project is located within the administrative boundary of the Lander Field Office (LFO) of the BLM. The purpose of this EA is to assist the LFO in project planning, ensuring compliance with the National Environmental Policy Act (NEPA), and in determining any “significant” impacts that could result from implementation of the alternatives analyzed. An EA provides evidence for an agency on which to base a decision about whether the alternatives analyzed result in a “Finding of No Significant Impact” (FONSI) or whether anticipated impacts resultant from the alternatives would be significant to necessitate preparation of an Environmental Impact Statement (EIS). A FONSI is a document that briefly presents the reasons why implementation of an alternative would not result in “significant” environmental impacts whereas an EIS provides a higher level of analysis of environmental impacts. If the agency determines that no significant impacts would result from the alternatives, a Decision Record and FONSI would be prepared approving the selected alternative. If the decision-maker determines that this project would have “significant” impacts following the analysis in the EA, an EIS would then be prepared for the project. The Environmental Analysis Process is described in greater detail in Section 1.4.

1.2 Location and Description of the Proposed Project Area

The CBNG pilot project was originally proposed in June 2002 and subsequently, EnCana obtained the Lease interests in the three units. In October 2007, EnCana submitted revised current Applications for Permit to Drill (APDs) to the BLM LFO. The current proposal is the CBNG pilot project in the PDU, EPDU, and NPDU, located approximately 70 miles southeast of Lander in southeastern Fremont County and northeastern Sweetwater County, Wyoming (**Figure 1-1**). The three units together are defined as the Pappy Draw project area. All surface lands in these three units, which encompass approximately 76 square miles (or 48,350 acres), are administered by the BLM LFO or the State of Wyoming. Oil and gas resources in the project area are federally owned and are currently under lease. The federal oil and gas leases associated with this CBNG project are located in 7-square-mile sections of the 76-square-mile project area, as shown in **Figure 1-1**. They are in Township 26 North, Range 92 West, Section 6 for the EPDU wells; Township 26 North, Range 93 West, Sections 3 and 4 for the PDU wells; and Township 27 North, Range 93 West, Sections 21, 22, 23, and 28 for the NPDU as shown in **Figure 1-2**.



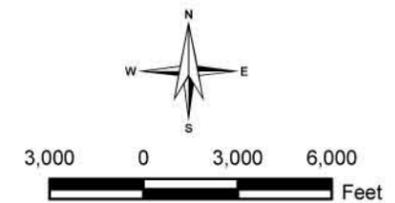
Legend

- Access, None, County
- Access, None, Existing 2-track
- Access, None, Existing Resource
- State Land
- BLM Land
- Lease Boundary

- East Pappy Draw Unit
- North Pappy Draw Unit
- Pappy Draw Unit

In Inset Map

- USGS Water Quality Gage
- USGS Water Quantity Gage

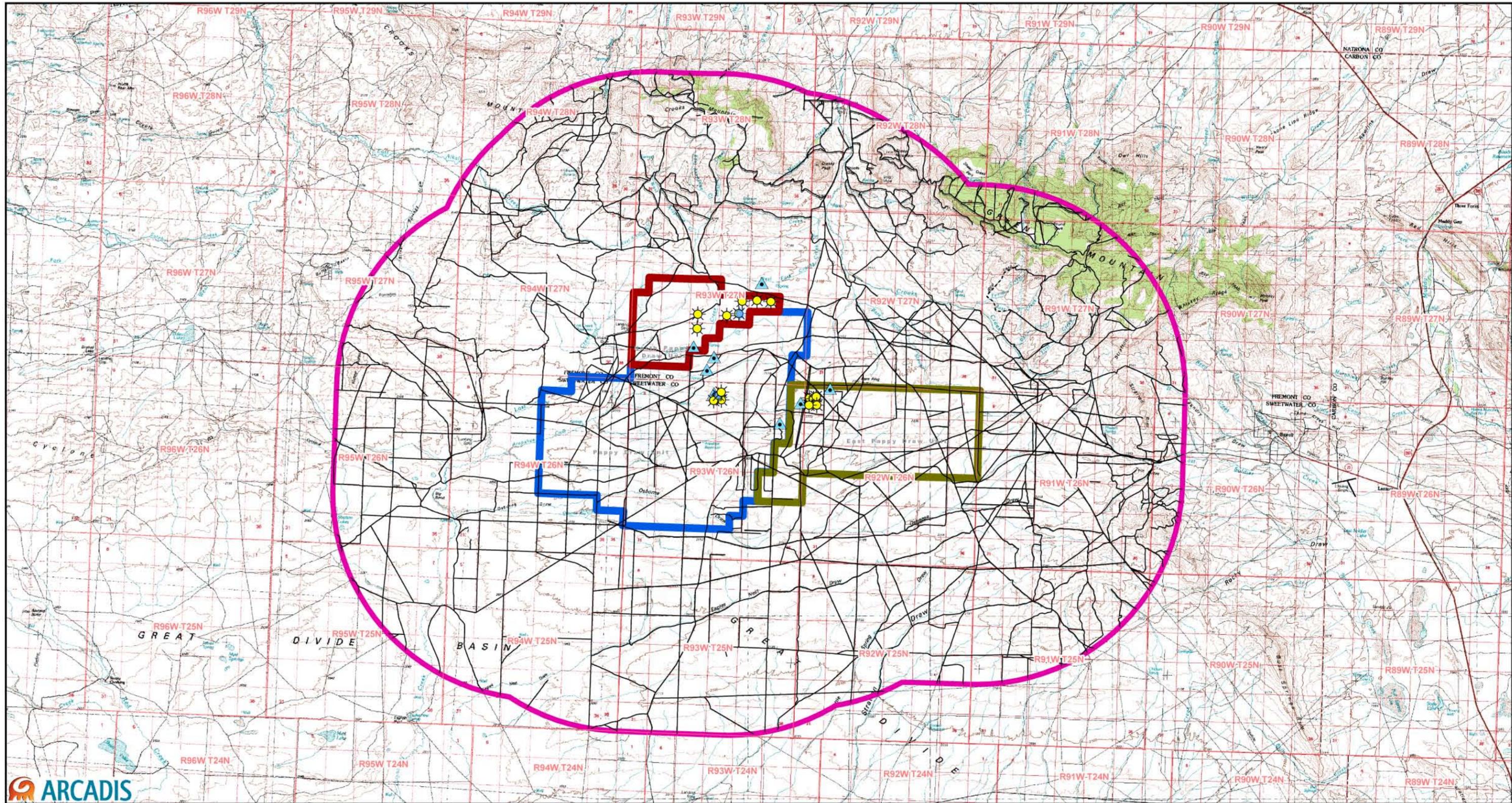


SOURCE: USGS TOPO 7.5' SERIES--
O42107-B7, O42107-B8, O42107-C7, O42107-C8,
O42108-B1, and O42108-C1
PROJECTION: NAD1983, UTM ZONE 13N

ENCANA OIL & GAS (USA), INC.

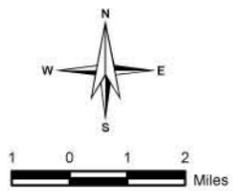
*PAPPY DRAW
FIGURE 1-1
PROJECT AREA*

Analysis Area: Fremont & Sweetwater Counties, Wyoming
Date: 3/27/2008 File: Figure1.mxd
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Legend

-  Proposed CBNG Well
-  Water Disposal Well
-  Local or Rural Road
-  Vehicular Trail
-  7 Mile Project Area Buffer



SOURCE: USGS TOPO 7.5' SERIES--
 O42107-B7, O42107-B8, O42107-C7, O42107-C8,
 O42108-B1, and O42108-C1
 PROJECTION: NAD1983, UTM ZONE 13N

ENCANA OIL & GAS (USA), INC.

**PAPPY DRAW
 FIGURE 1-2
 PROPOSED PROJECT**

Analysis Area: Fremont & Sweetwater Counties, Wyoming	
Date: 7/31/2008	File: Cumulative.mxd
Created By: JC JG	Layout: Cumulative.pdf

1.3 Purpose of and Need for the Proposed Project

The BLM's purpose (or goal) for the Pappy Draw EA is to ensure that public lands are managed according to the principles of multiple use identified in the Federal Land Policy and Management Act of 1976 (FLPMA) and the Lander RMP in deciding on what basis to allow drilling to meet federal domestic energy production goals while protecting other important resources values. The "need" is to maintain valid, existing rights and other obligations already established under existing oil and gas leases.

In making decisions for the Project, the BLM will identify the method by which or if the proponent may explore its leased areas to evaluate whether larger scale development is feasible without causing significant environmental impact to other resource values.

Encana's proposed project is to explore the feasibility of CBNG development on their lease areas and to evaluate whether larger-scale development of the PDU, EPDU, and NPDU is economically feasible, through exploration and production involving 16 pilot CBNG wells and three injection wells for disposal of produced water. Based on the results of the exploratory pilot project, EnCana would be able to determine the interaction between the wells, gas production volumes, and the potential economics of development.

The specific design of this proposal, including the number and spacing of the gas and injection wells, is intended to evaluate the following key factors that must be addressed before development of CBNG in the PDU, EPDU, and NPDU can be planned:

- Ø The presence of recoverable CBNG resources;
- Ø Characteristics of the coal-beds that could affect the ability to produce CBNG;
- Ø Quantity and quality of CBNG produced water;
- Ø Capability of the proposed injection zone;
- Ø Effectiveness of the pilot program in depressurizing the coal-beds to stimulate gas production;
- Ø Proposed well spacing for development; and
- Ø Economic feasibility of developing the PDU, EPDU, and NPDU.

National strategic energy policy as addressed in the various Federal Acts in which the exploration and development of domestic oil and gas is encouraged to meet the increasing energy demands of the region and nation as a whole. The Mineral Leasing Act of 1920 (MLA), as amended, provides that exploration and development of domestic oil and gas is in the best interest of the United States. The intent of the MLA and its implementing regulations are to allow and encourage lessees or potential lessees to explore for oil and gas or other mineral reserves on federally administered lands. The Federal Land Policy and Management Act of 1976 (FLPMA) mandates that the BLM manage public lands on the basis of multiple use [43 U.S.C. § 1701(a)(7)]. Mineral development is identified as one of the principal uses of public lands in Section 103 of FLPMA [43 U.S.C. § 1702(c)]. The Federal Onshore Oil and Gas Leasing Reform Act of 1987 (FOOGLRA) also authorizes the BLM to encourage oil and gas leasing for the development of domestic oil and gas reserves to reduce the dependence of the United States on foreign energy sources.

In 2005, Congress enacted the Energy Policy Act. The objective of the Energy Policy Act is to reduce the Nation's dependence on imported petroleum and encourage the development of a comprehensive long-range energy policy. The Act also provides incentives for traditional energy production as well as newer, more efficient energy technologies and conservation.

1.4 Environmental Analysis Process

This EA documents the process used by BLM to make decisions in accordance with NEPA and provides the public an opportunity to review the same information and to provide comment and feedback to the BLM regarding the alternatives. The potential environmental effects resulting from the implementation of each alternative are described in this document, as well as project design features to reduce those effects. This EA provides a resource-specific analysis of the potential environmental effects of the alternatives to determine whether any significant effects would likely occur that would require the preparation of an EIS. If there are no significant impacts, the FONSI and Decision Record would be submitted, the NEPA process would be satisfied, and EnCana could proceed with implementation of the approved alternative. EnCana would be required to conform with lease stipulations and Conditions of Approval (COAs) in the approved APDs (**Appendix A**) and Right-of-Way (ROW) authorizations.

Factors considered during the environmental analysis for the proposed alternatives included the following:

- Ø A determination of conformance of the proposed alternatives with BLM policies, regulations, and the approved Resource Management Plan (RMP) (BLM, 1987).
- Ø A determination of whether the proposed alternatives conform to policies and regulations of other agencies that may be associated with the proposed project.
- Ø A determination of how the proposed alternatives could best meet resource management objectives while honoring lease rights in the project area.
- Ø A determination of the environmental effects that may be caused by the proposed alternatives.
- Ø A determination of the mitigation measures necessary to avoid or minimize potential environmental effects.

Although the BLM has the authority to deny individual APDs and ROW applications, the lessees' right to drill and develop cannot be denied entirely. Pursuant to FLPMA, the BLM also has the authority and responsibility to protect the environment within federal oil and gas leases; therefore, restrictions may be imposed on lease terms. However, mitigation and/or project design features measure that would render a proposed operation uneconomic or unfeasible are not consistent with the lessee's rights and cannot be required unless they are included as a lease stipulation or are needed to prevent unnecessary and undue degradation of public lands or resources.

1.5 Relationship to Policies, Plans, and Programs

This EA was prepared in accordance with NEPA and complies with all applicable regulations and laws passed subsequent to the act.

1.5.1 Conformance with the Lander RMP

The RMP that directs the management of the Lander Resource Area is the *Final Resource Management Plan/Environmental Impact Statement for the Lander Resource Area, Lander, Wyoming* (BLM 1986a) and *Record of Decision for the Lander Resource Management Plan* (BLM 1987). Management direction is also provided in the *Grazing Supplement to the Final Resource Management Plan/Environmental Impact Statement for the Lander Resource Area, Lander, Wyoming* (BLM 1986b).

The LFO, as required by 43 CFR 1610.5, has determined that the proposed project conforms to the decisions, guidelines, terms, and conditions for the Beaver Creek Management Unit, as described in the

Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for the Lander RMP. The Lander RMP states that “public lands will be made available for oil and gas leasing and development to the maximum extent possible, while giving due consideration to the protection of other significant resource values.” The Beaver Creek Management Unit is open for oil and gas leasing with standard requirements (Map 17 in the RMP, BLM 1986a). Thus, development of natural gas reserves within the Pappy Draw project area would be in conformance with the Lander RMP.

This EA incorporates the appropriate decisions, terms, and conditions of use described in the Lander RMP. Use authorizations for wellpads, roads, pipelines, and well site facilities would be processed through the BLM APD, Sundry Notice, and/or Section 390 Statutory Categorical Exclusion processes. All project-related activities would be conducted in full compliance with the terms and conditions of the applicable federal leases.

1.5.2 Relationship to Statutes, Regulations and/or Other Plans and Documents

Development of federal oil and gas leases is an integral part of the BLM oil and gas leasing program under the authority of the MLA of 1920 (30 USC 181 et seq.), the FLPMA of 1976 (43U.S.C. 1701), the FOOGLRA of 1982 (30 USC 1732 and 1755), and the *Federal Onshore Oil and Gas Leasing Reform Act of 1987* (P.L. No. 100-203). The BLM oil and gas leasing program is intended to encourage the development of domestic oil and gas resources, thereby reducing national dependence on foreign energy supplies.

This EA is being prepared in accordance with the NEPA (42 U.S.C. 4321-4347), as amended. The regulatory framework that governs oil and gas drilling, production, and abandonment involves a number of policies, legislation, and regulations. The proposed project must be reviewed in accordance with requirements of Onshore Oil and Gas Operations (43 CFR 3160), BLM Onshore Oil and Gas Order Nos. 1 through 7 (43 CFR 3164), the NEPA, and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), *Revised BLM Handbook H-1790* (BLM 2008a), and USDI DM-516 (2004).

The proposed project would require approval or permits from several federal, state, and local agencies. **Appendix B** summarizes other relevant regulatory permits, plans, and documents that are applicable to this project. EnCana would obtain each of the approvals or permits as needed to move forward with this project.

1.6 Public Scoping and Development of Issues

Four separate scoping efforts have occurred in the history of this proposed project. The LFO posted the first scoping notice on July 12, 2002 to announce that Patina Oil and Gas Corporation (Patina) of Denver, Colorado had proposed to drill five exploratory CBNG wells in the PDU project area. The second scoping notice was posted by the LFO in July 2003 announcing that Patina had proposed to expand the original proposed project to consist of three exploratory CBNG pilots of five wells each in PDU, NPDU, and EPDU. EnCana Energy Resources subsequently obtained lease interests in the project area and proposed new exploratory well locations and facilities, and new APDs were submitted. In June 2005, a third scoping notice was posted by the LFO for the revised project. Further revisions to the project were made when EnCana became the Unit Operator for PDU, EPDU, and NPDU, and revised APDs were submitted in April 2006 to reflect this change. The project was re-analyzed by both EnCana and the BLM LFO. New onsite visits were conducted, and changes were made to access roads, wellpad designs, production facilities, and locations of three well sites. These changes reduced the overall disturbance size and improved the viability of the proposed project. Revised APDs and new ROW applications were submitted to reflect these changes in October and November 2007.

The fourth and current scoping notice discussing EnCana's proposed Pappy Draw exploratory project was mailed on December 4, 2007 to 164 government agencies, government officials, public land user groups, private landowners, newspapers, and radio stations. The scoping notice is provided in **Appendix C-1**. The notice of availability for the scoping notice and the date of the first public scoping meeting appeared in the Rawlins Daily Times, Lander Journal, Wind River News, The Riverton Ranger, and Rock Springs Rocket-Miner between December 5 and 12, 2007. The LFO posted the current version of the scoping notice on the BLM Wyoming website (<http://www.blm.gov/wy/st/en/info/NEPA/lfodocs/pappydraw.html>) on December 10, 2007. A public scoping meeting was held at the Pronghorn Inn in Lander, Wyoming on December 13, 2007.

The scoping period was scheduled for 30 days and ended on January 10, 2008. In addition to those who had submitted letters from previous scoping periods, 11 comment letters were received from individuals, agencies and organizations during this scoping period. The issues identified in the comment letters are provided below. A list of those who submitted scoping comments is provided in **Appendix C-3**.

1.6.1 Identified Issues

The following environmental issues were identified during one or more of the four scoping efforts:

- Ø Differences between development of conventional natural gas and CBNG are not addressed in the Lander RMP.
- Ø Surface and groundwater resources may be affected by the proposed project. The withdrawal of produced water through CBNG production could deplete groundwater resources. Subsequent disposal of produced water through injection could contaminate groundwater, springs, or aquifers.
- Ø Air quality, including visibility, in the Red Desert airshed and nearby sensitive areas may be affected by increased traffic, emissions, production activities, and associated effects related to the proposed project.
- Ø The use of directional drilling may reduce surface effects, if the technology is feasible.
- Ø Biological soil crusts, which could take decades to recover, may be affected by the proposed project.
- Ø Non-native species may affect existing vegetation and prevent reclamation of disturbed areas.
- Ø Wetlands and riparian habitats may be affected by the proposed project.
- Ø Rangelands may be affected by the proposed project.
- Ø The proposed project may contribute to habitat fragmentation, disturbance or destruction of habitats, disruption of seasonal migration routes, and disruption of breeding activity for many wildlife species. Priority species of concern in this area are greater sage-grouse, mountain plover, loggerhead shrike, pronghorn antelope, and burrowing owl. Effects to raptors, big game, and the white-tailed prairie dog are also a concern.
- Ø Threatened, endangered, proposed, and sensitive plant and animal species and their habitats, including bald eagle, black-footed ferret, Ute ladies'-tresses orchid, and Platte River species (found in downstream riverine habitat of the Platte River in Nebraska), may be affected by the proposed project.
- Ø Cultural and historical values and associated viewsheds may be affected by the proposed project.
- Ø Wild horses may be affected by the proposed project.
- Ø Recreational activities, including recreational hunting, may be affected by the proposed project.

- Ø Commercial outfitter use may be affected by the proposed project.
- Ø State and private lands and other multiple uses may be affected by the proposed project.
- Ø Visual resources may be affected by the proposed project.
- Ø Roadless qualities of the project area may be affected by the proposed project.
- Ø Potential socioeconomic effects and tradeoffs should be addressed.
- Ø The proposed project may affect the road system in the project area.
- Ø The proposed use of hydraulic fracturing should be disclosed and analyzed.
- Ø The proposed project should be designed with mitigation measures to reduce effects and avoid adverse effects on other resources and uses, and prevent the release of toxic substances. The burial of reserve pit contents on site should be prohibited.
- Ø Cumulative effects of the proposed project on the Red Desert ecosystem, including the effects on habitat fragmentation on a landscape scale, when combined with ongoing conventional gas drilling and development and other activities, should be analyzed.
- Ø Overhead powerline impacts should be addressed with respect to sage-grouse. Overhead powerlines are viewed as potentially detrimental to sage-grouse because they provide raptor perches and burial of lines was recommended. Generators were also recommended to be used until powerlines can be buried.