For:
Bureau of Land Management
Pinedale Field Office
Pinedale, WY
May 2010

Submitted by:
AECOM
Fort Collins, CO

LaBarge Exploration and Development Project Environmental Impact Statement Scoping Summary Report

For:
Bureau of Land Management
Pinedale Field Office
Pinedale, WY
May 2010

Submitted by:
AECOM
Fort Collins, CO

LaBarge Exploration and Development Project Environmental Impact Statement Scoping Summary Report

Contents

List of Appendices

List of Tables

List of Figures

1.0 Introduction

Two primary principles of the National Environmental Policy Act (NEPA) are full disclosure of potential environmental effects and open public participation throughout the decision-making process. The Bureau of Land Management (BLM) is preparing an Environmental Impact Statement (EIS) for the proposed LaBarge Exploration and Development Project in southwestern Wyoming. The BLM is the lead agency and cooperating agencies currently are being identified. The Scoping Summary Report provides an overview of the public scoping process and a summary of the scoping comments and the issues and concerns identified during the scoping process.

1.1 Description of the Proposed Project

EOG Resources, Inc., ExxonMobil Production Company, Chevron U.S.A. Inc., and Wexpro Company (collectively referred to as the "Operators") propose to explore for and develop potentially productive subsurface formations underlying oil and gas leases owned, at least in part, by the Operators within the La Barge Platform (LBP) area of northern Lincoln County and southern Sublette County, Wyoming. The Project Area consists of approximately 218,000 total acres. The Operators propose to drill, complete, produce, and eventually reclaim up to 838 new oil and gas wells on an estimated 463 new well pads as infill (vertical and horizontal), exploratory, or step-out wells to all productive formations, including the Almy, Transition zone, Mesaverde, Baxter, Frontier, Muddy, Dakota, Nugget, Bear River, and possibly other formations.

1.2 Purpose of Scoping

Scoping is the process of actively soliciting input from the public and other interested federal, state, tribal, and local agencies. Information gained during scoping assists BLM in identifying potential environmental issues, alternatives, and mitigation measures associated with development of the proposed Project. The process provides a mechanism for determining the scope and the significant issues (40 Code of Federal Regulations [CFR] 1501.7 and 40 CFR 1508.25) so that the EIS can focus the analyses on areas of interest and concern. Therefore, public participation during the scoping period is a vital component to preparing a comprehensive and sound NEPA document. Scoping provides the public, tribes, and agencies opportunities for meaningful public involvement in the decision-making process.

BLM's overall scoping goal for the LaBarge Exploration and Development Project is to engage a diverse group of public and agency participants in the NEPA process, solicit relevant input, and provide timely information throughout the duration of the project.

2.0 Summary of Scoping Meetings and Comments

2.1 Notification

The initial step in the NEPA process is to notify the public, other government agencies, and tribes of the lead agency's intent to prepare an EIS by publishing the Notice of Intent (NOI) in the *Federal Register*. The NOI for the LaBarge Exploration and Development Project was published in the Federal Register on August 3, 2009, and included a project description and BLM contact information. Additionally, scoping letters were mailed on August 3, 2009, to over 2500 interested parties including federal, state, and local agencies and tribes. The letters included a description of the proposed project, the scoping statement, and a project location map. **Appendix A** lists the federal, state, and local agencies that were notified.

Display advertisements were placed in local newspapers (**Table 1**) providing information about the upcoming public scoping meeting dates, times and locations.

Table 1 Newspaper Publications

Newspaper	Dates Published
Casper Star Tribune	August 16 and August 23, 2009
Rocket Miner	August 13 and August 20, 2009
Kemmerer Gazette	August 13 and August 20, 2009
Pinedale Roundup	August 14 and August 21, 2009
Sublette Examiner	August 11 and August 18, 2009

As part of the notification process, the BLM sent 8.5" x 11" posters to the meeting venues, post offices, and libraries in Kemmerer, LaBarge, Marbleton, Green River, Rock Springs, Cokeville, Big Piney, and Pinedale, Wyoming, announcing the public scoping meetings.

2.1.1 Consultation and Coordination with Federal, State, and Local Governments

Specific regulations require BLM to coordinate and consult with federal, state, and local agencies about the potential of the proposed project and alternatives to affect sensitive resources. The coordination and consultation must occur in a timely manner and are required before any final decisions are made. Government agencies and interested organizations were sent a letter in August, 2009, inviting them to participate as cooperating agencies in the analysis process. These agencies and organizations qualify as cooperating agencies because they possess special expertise concerning the resources, history, institutions, and social and economic conditions, that are relevant to assessing baseline conditions and the potential effects of planning alternatives during the EIS process.

Issues related to agency consultation may include biological resources, cultural resources, socioeconomics, and land and water management. Biological resource consultations apply to the potential for activities to disturb sensitive species or habitats. Cultural resource consultations apply to the potential for impacts to important cultural or archaeological sites. The BLM has initiated these coordination and consultation activities through the scoping process as well as through cooperating agency meetings held in February, 2010 (see **Table 2**). To date, the following organizations have agreed to participate as cooperating agencies on the LaBarge Exploration and Development Project EIS:

- Alliance for Historic Wyoming
- Lincoln Conservation District
- Lincoln County Commissioners
- Oregon-California Trails Association
- State of Wyoming
- Sublette County Commissioners (who will also represent the Town of Pinedale)
- Sublette County Conservation District
- Sweetwater County Commissioners
- Sweetwater County Conservation District
- Town of Big Piney
- Town of LaBarge
- Town of Marbleton

Table 2 Cooperating Agency Meetings

Date	Location	Cooperators Participating
February 9, 2010	Lincoln County Courthouse, Kemmerer, WY	Lincoln County
February 17, 2010	Big Piney Council Room, Big Piney, WY	Town of Big Piney and Town of Marbleton
February 22, 2010	Pinedale BLM Field Office, Pinedale, WY	Sublette County, Sublette County Conservation District, WY Department of Agriculture, and WY Department of Environmental Quality
February 24, 2010	BLM State Office, Cheyenne, WY	WY State Historic Preservation Office, WY Game and Fish Department, WY Department of Agriculture, and WY Oil and Gas Conservation Commission
February 25, 2010	BLM State Office, Cheyenne, WY	Governor's Office, Sublette County, WY Department of Agriculture, WY Game and Fish Department, and WY Department of Environmental Quality

2.1.2 Tribal Government-to-Government Consultation

Under Executive Order 13084, BLM is required to establish regular and meaningful consultation and collaboration with Native American tribal governments on development of regulatory policies and issuance of permits that could significantly or uniquely affect their communities. On August 11, 2009, the BLM mailed letters to the Eastern Shoshone Tribe, Shoshone-Bannock Tribe of Fort Hall, Northern Arapaho Tribe, and the Northern Ute Tribe inviting them to become cooperating agencies. Formal consultation under the National Historic Preservation Act, as amended, Section 106 has not been initiated.

2.2 Public Scoping Meetings

Public scoping meetings offer an opportunity for public involvement during the scoping period. The meetings are designed to promote information exchange about the proposed Project and to gather public input. BLM hosted four public scoping meetings: one each in Kemmerer, LaBarge, Marbleton and Pinedale, Wyoming from 4:00 p.m. to 7:00 p.m.. The dates and locations, and number of public attendees at the scoping meetings are provided in **Table 3**.

Table 3 Public Scoping Meetings

Meeting Location	Meeting Date	Number of Attendees
Kemmerer, Wyoming	Monday August 24, 2009	5
LaBarge, Wyoming	Tuesday August 25, 2009	14
Marbleton, Wyoming	Wednesday August 26, 2009	11
Pinedale, Wyoming	Thursday August 27, 2009	16

The scoping meetings were conducted as an informal open house format to allow for an open exchange of information and ability of attendees to ask agency personnel, the project applicant, and EIS contractor questions about the project. Display boards showing various aspects (e.g., project location and the NEPA process) of the proposed project were presented to facilitate conversation. A computer and projector were running with a full map of the entire project area in the event a participant wanted to zoom in on a particular portion of the project area. A number of handouts summarizing the project, the NEPA process, as well as more detailed information on the proposed exploration and development were available to the public. Informational materials presented to the public at the scoping meetings are provided in **Appendix B**.

At the public scoping meetings in August, 2009, copies of the full project description submitted by EOG Resources, Inc., was available for public review, in addition to summaries of proposed development from ExxonMobil, Chevron, and Wexpro. After the public meetings were held, a comprehensive project description that incorporates the proposals of all operators was submitted to BLM. In order to minimize confusion, the project description included in Appendix B is the combined operators' version submitted in December, 2009. Also included in Appendix B is a table that summarizes the differences between the two versions.

An additional open house, attended by eleven members of the public, was held on February 3, 2010 from 4:00 to 7:00 p.m., to provide information on the combined four-operator project description. The meeting was held at the Pinedale BLM Field Office in a format similar to the scoping meetings. Display advertisements publicizing the meeting were placed in the Sublette Examiner (January 26 and February 2, 2001), the Pinedale Roundup (January 22 and 29, 2010), and Pinedale Online. A e-mail notification was sent to those interested parties for whom the BLM has addresses.

2.3 Summary of Scoping Comments

BLM received a total of 44 comment submittals (e.g., letter, comment form, email, or cooperator meetings) containing 1,092 individual comments during the public scoping period. Eighteen comment letters BLM received were from government agencies or officials, and the remainder from individuals, conservation groups, industry, or other nongovernmental entities.

Following the close of the public scoping period on March 5, 2010 comments were compiled and analyzed to identify issues and concerns. Each comment was identified, reviewed, and entered into an electronic database. As comments were entered, contact information for the commenter was added or updated in the mailing list to ensure that all interested parties would receive information throughout the EIS process. In addition to those who submitted comments, any person who told the BLM that he or she would like to remain on the mailing list was identified to receive future notifications through the mail or e-mail.

Once the individual comments were compiled in the database, reports were generated categorizing the issues by topic (e.g., NEPA process, alternatives, cumulative impacts, mitigation, monitoring, etc.) and/or resource (e.g., wildlife, air quality, water resources, soils, visual, etc.). The summary reports were reviewed to identify data entry errors. A comprehensive list of the scoping comments grouped by these categories is presented in **Appendix C**. It is important to note that some comments appear multiple times in the comprehensive list as they are relevant to more than one category. Some of the scoping comments were eliminated from consideration in the EIS because they addressed issues outside of the scope of detailed analysis or the comment stated an opinion (e.g., I oppose/support this project).

Table 4 and **Figure 1** summarize the number of comments per category, with some comments counted more than once because they fit into more than one category. **Table 4** is sorted in alphabetical order by category and **Figure 1** is sorted from the greatest number of comments to the least.

Table 4 Number of Comments per Category

Category Name	Number of Comments
Air Quality	58
Aquatic Species/Fisheries	43
Categorical Exclusions	5
Cultural Resources	10
Cumulative Impacts	31
Field Operations	78
Health/Safety	2
Leasing	3
Livestock Grazing/Range Management	32
Mitigation Measures	85
Monitoring	42
NEPA Process	72
Oil and Gas Development	8
Oil, Gas, Energy	14
Out of Scope/Not Applicable	16
Partnerships/Cooperative Relationships	1
Permits/Special Uses	15
Planning Processes	13
Reclamation	43
Recreation	21
Riparian Areas	15
Roads/Road Construction	37
Seasonal Restrictions	31
Socioeconomics	53
Soils	9
Special Areas	6
Surface Disturbance	17
Threatened & Endangered Species	21
Travel Management	32
Vegetation/Botany	20
Visual/Scenic Resources	1
Water Resources	95
Wetlands	3
Wildlife Habitat/Species	155
Total Comments	**1,092**

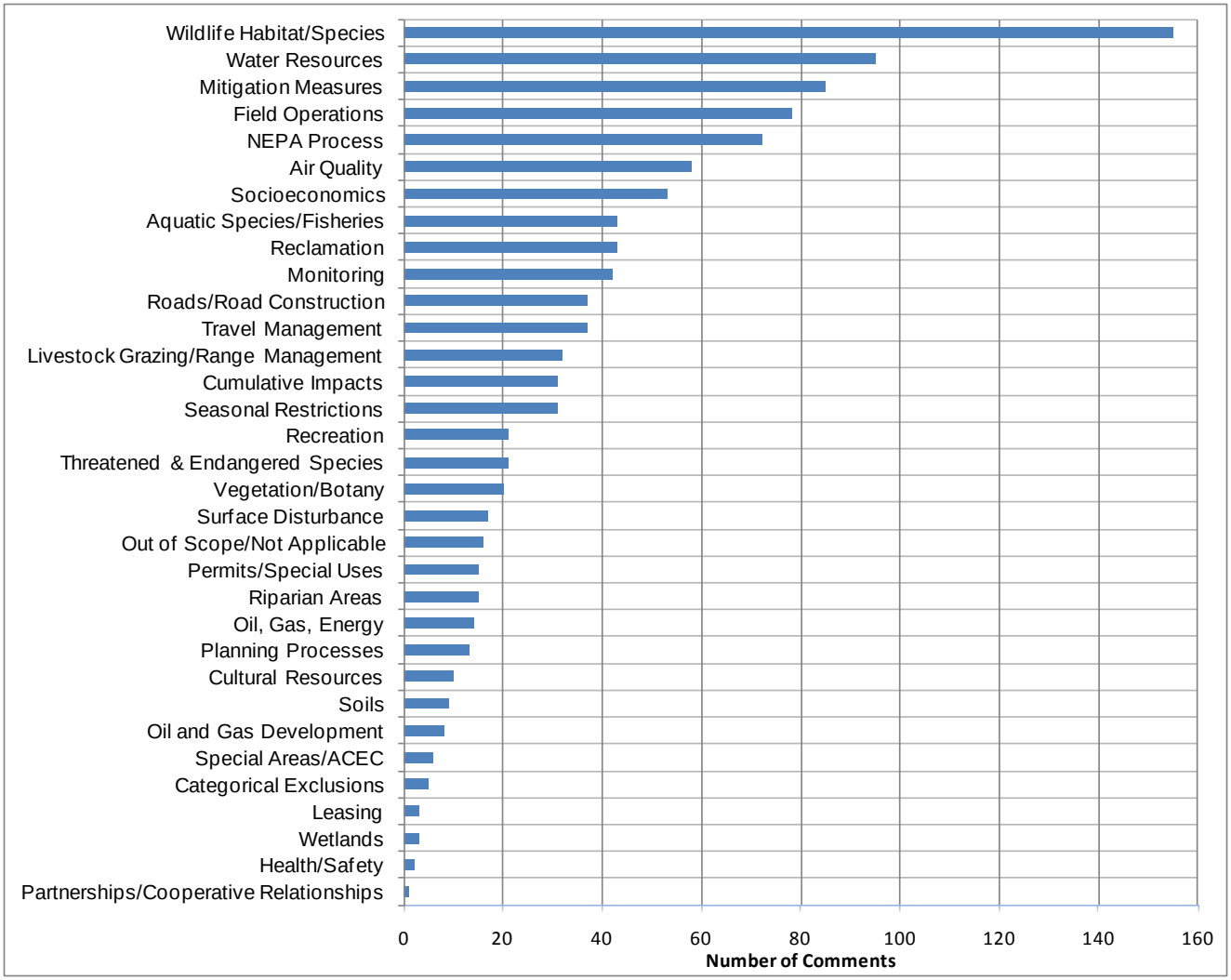


Figure 1 Number of Scoping Comments by Category (in Descending Order)

3.0 Identification of Issues

3.1 Summary of Primary Issues

Information gained during scoping assists the BLM in identifying the potential environmental issues, alternatives, and mitigation measures that may be associated with implementation of the proposed project. The scoping process provides a mechanism for narrowing the scope of issues so that the EIS can focus the analysis on areas of high interest and concern. A majority of the comments were related to impacts associated with project development to wildlife, water resources, socioeconomics, and air quality and to avoid impacts to these resources. It is important to note that comments are often relevant to a number of topics as resources are closely related and intertwined. For example, comments related to air quality, wildlife, transportation, and recreation can be relevant to visual resources. The following summarizes the key concerns expressed during scoping.

Wildlife

- Project impacts to big game winter habitat and migration patterns, particularly mule deer and elk, but also pronghorn and moose.
- Impacts to greater sage-grouse, sage-grouse habitat, and the need for more surveys.
- Impacts to sensitive wildlife species and species of management interest recorded in or in the vicinity of the project area that will need to be addressed along with migratory birds, non-game species, and raptors.
- Concerns related to the impacts to species and their habitat from construction and maintenance of existing and future roads including truck and other vehicle traffic.
- Concern about increased harm to wildlife from harassment, poaching, or negligent driving.
- Cumulative impacts to wildlife of this proposed project and other historic, current, and proposed projects in adjacent habitat (including oil and gas, timber harvesting, livestock grazing, road building, recreation).
- Suggestions regarding seasonal restrictions for various species and species habitat, and concern about possible year-round drilling.
- Species, habitat, or baseline surveys suggested for many wildlife species.

Water Resources

- Monitoring and protection of groundwater and surface water quality and quantity.
- Concern regarding tank, evaporation pond, or reserve pit, leakage and spills.
- Requirement on Bureau of Reclamation lands that wells cannot be drilled with 660 feet of a river, channel, permanent stream, tributary, or marsh site.
- Requirement for various notifications and/or permits from the State of Wyoming or the Army Corps of Engineers for storm water, temporary turbidity variance, Section 404, discharges, and spill reporting.
- Suggestions/recommendations regarding setbacks from streams, rivers, and wetlands.
- Prevent water resource impacts from hydrostatic testing and frac-outs caused by horizontal directional drilling.

Field Operations

- Suggestions to limit truck traffic by using pipelines or larger storage tanks so oil or produced water could be transported by pipe or less frequently by trucks.
- A number of comments about year-round drilling were received. It was raised as an important aspect of the project's success as well as being raised as a concern because of impacts on wildlife.
- Comments regarding limiting the number of new well pads (and therefore surface disturbance), namely by directionally drilling from existing pads and conducting multiple drills from any new pad.

Mitigation Measures

- General concern that impacts to the various resources are mitigated.
- Concern that the scoping notice includes measures rather than having them identified through the NEPA process.
- Additional data collection and surveys for a variety of species and habitat were suggested in comments.
- A wide variety and number of mitigation measures were suggested for impacts on grazing.
- Recommendation that on-site mitigation conducted first, then off-site mitigation
- Comments that mitigation for impacts to local infrastructure needs to be included.

Air Quality

- The Project should be analyzed to ensure it does not further contribute to the ozone problem in the region.
- Consider the number of wells and rate of development in the area with regard to the ability to continue to stay in compliance with air quality regulations.
- The EIS should consider the cumulative air quality impacts of this project with Pinedale Anticline and Jonah Fields.
- The EIS should recognize that the jurisdiction of air quality enforcement lies with EPA and their designee the State of Wyoming DEQ – Air Quality Division.
- Consider and evaluate emission reduction techniques and technologies.
- Concern about visibility impairment at key Class I resources in the region.

Socioeconomics

- Concern about impacts to the tourism economy (e.g., wildlife watching, hunting, fishing, outfitters).
- Include in the analysis the impact of revenues from royalties and taxes to the federal, state, and local governments as well as resulting secondary spending.
- Consider consistency with local governments' policies and programs and ensure mitigation for impacts to local infrastructure.
- Ensure compatibility with ranching and farming economies.

Travel Management

- A travel management/transportation plan should be developed.
- Comments that recommend strategies on limiting traffic.
- Suggestions on timing limitations or restrictions on travel in certain areas to protect wildlife.
- Comment that if BLM roads are proposed for decommissioning, local governments should be consulted.

Aquatic Species/Fisheries

- Consider cumulative impacts of road building, facility development, and other surface disturbance that contribute to degradation of aquatic habitat within and immediately surrounding the project area.
- Colorado River cutthroat trout and its habitat should be considered and no in-stream activity should occur during the spawning time for this species in waterbodies where it is known to occur.
- Monitoring should include: coldwater fish species upstream and downstream of the project area, water quality and quantity, and surveys on amphibians.
- Suggestions/recommendations regarding setbacks from streams, rivers, and wetlands.
- Avoid introducing aquatic invasive species.
- Adequate protection from spills (e.g., dikes, spill prevention control and countermeasures plan), must be in place prior to conducting work.
- Suggestion that improvement/replacement of culverts could be used as mitigation.

NEPA Process

- Suggestions were received on alternatives to consider.
- Concern that BLM consider alternatives that meet the project purpose and need, and are technically and economically feasible.
- Comments regarding a single versus multiple operator project scope.

Cumulative Impacts

- General comments about concerns the EIS address cumulative impacts for the various resources because of the number of other oil and gas, and other projects in the areas. Names of specific projects that should be included in the cumulative analysis also were provided in comments.
- Resources of particular concern with regard to cumulative impacts included wildlife, air quality, and water quality.

Reclamation

- Concern about the spread of noxious weeds and the length of time it takes for native vegetation to become established.
- Reclamation should comply with the Wyoming Reclamation Policy and should be monitored.
- Improve previously reclaimed sites in advance of further disturbance.
- Use certified professional for reclamation and consult with local conservation districts.

Monitoring

- Comment that a monitoring plan should be developed.
- Both general and resource-specific comments were received regarding monitoring. Some of the specific resources mentioned included water quality, wildlife, vegetation, air quality, soils, and fisheries.
- Recommendation that performance-based standards be employed.
- Suggestions that baseline information for a variety of resources be collected.

Roads/Road Construction

- Comments that road design and placement be addressed.
- Concern about road densities and new road construction.
- A transportation plan should be developed and roads constructed per BLM road construction guidelines.

Livestock Grazing

- Impacts to livestock grazing operations from the project (e.g., livestock water availability, forage improvement projects, stock driveways, and compensation for livestock fatalities due to vehicle collisions).
- Include the importance of livestock grazing and ranching on the local economy.
- Note the positive impact that livestock grazing and ranching has on protecting open space, rangeland health, and wildlife habitats.
- Suggestions to gas/oil field operators that could minimize impacts to livestock including: properly mounted cattle guards, properly maintained fences around oil and gas facilities, and reduced speeds on roads.

Recreation

- Concern regarding big game hunting and fishing impacts.
- Concerns expressed that additional changes to the natural landscape would impact recreational users.

Seasonal Restrictions

- Specific comments regarding seasonal restrictions for some species were received.
- There were a number of comments expressing concern about year-round drilling and about activities conducted during the winter.

Oil, Gas, Energy

- Comments regarding the importance of energy development.
- General information about the project wells.

Additional key concerns were related to threatened and endangered species, vegetation, surface disturbance, and soils. Compliance with the Pinedale RMP, as well as other federal, state, and local laws, was a frequent

comment mentioned in relation to a variety of resources. Impacts to the Lander Cutoff of the California National Historic Trail, attention to special areas including ACECs, and compliance with Section 106 of the National Historic Preservation Act were other key concerns brought forward during the scoping period.

3.2 Potential Alternatives

One of the objectives of scoping is to identify alternatives or options to the applicant's proposed project for evaluation in the EIS. The first is to identify potential alternatives, then to screen out alternative or options that do not meet the project's purpose and need. Potential alternatives are then narrowed down to options that are "feasible" and "reasonable" based on technical, economic, and environmental factors. Alternatives or options that were eliminated from detailed evaluation will be discussed in the EIS including the reasons for elimination.

BLM will review alternatives identified during the scoping period. These comments and issues will be used to develop an array of potential alternatives for consideration by the BLM.

Below is a summary of key public comments associated with alternatives to the LaBarge Exploration and Development Project.

- Consider an alternative that does not allow (winter) year-round drilling.
- Development should be done in phases or decrease the rate of development.
- Limit the density of wells (suggestion of one well site per square mile).
- Consider an alternative that results in a "no net increase" in the quantity of surface disturbance.
- Consider the following strategies to minimize impacts as part of the alternatives:
  - Cluster well pads.
  - Use remote monitoring to reduce traffic.
  - Green completions should be used when safe (i.e., flareless completions).
  - Avoid siting in sensitive wildlife habitats (e.g., crucial winter range, sage grouse nesting).
  - Use pipelines to collect condensate to central locations rather than having tanks at each site (to reduce truck traffic).
  - Use closed-loop drilling instead of reserve pits (to reduce surface impacts and risk to wildlife).
  - Use mats during construction (to reduce impacts to vegetation and soils).

4.0 Activities Following Scoping

The NEPA process provides numerous opportunities for public input. Following the scoping period, the Draft EIS will be prepared incorporating information received from the public during the scoping period. Once the Draft EIS is complete, BLM will publish and distribute the document for public review. During the review period, the public can comment on key issues and the adequacy of the purpose and need, alternatives analysis, and proposed mitigation presented in the Draft EIS. Public meetings will take place to allow other public to provide their comments. The Draft EIS is anticipated to be published in the summer of 2011. The public review period for the Draft EIS is scheduled to end in early fall of 2011, with public meetings scheduled sometime in the middle of that period.

Appendix A

Agency Notification List

Agencies and Organizations Sent Notification of Public Scoping

- Abo Petro Corp.
- Alliance for Historic Wyoming
- American Lands Alliance
- Anadarko Petroleum Corporation
- Andex Resources LLC
- Animal Protection Institute of America
- Banko Petroleum Management, Inc.
- Biodiversity Conservation Alliance
- BWAB, Inc.
- C&D Enterprises LLC
- Cabot Oil & Gas Corporation
- Chevron USA, Inc.
- Chicken Creek LLC
- Coalition of Local Governments
- Cross Lazy Two Land & Livestock Co., Inc.
- Crown Oil & Gas Company Inc.
- Defenders of Wildlife
- Enervest Energy LP
- EOG Resources, Inc.
- EPA, Region 8
- Equitable Production Co
- Exxon Mobil Production
- FMC Corporation
- Greater Yellowstone Coalition
- Greys River Trophies
- J.F. Ranch Inc.
- Lance O & G Co., Inc.
- Lincoln Conservation District
- Midway Ranches Limited Partnership
- Milleg Partnership
- Miller Land & Livestock
- National Park Service
- National Pony Express Association
- Northern Arapaho Business Council
- OCI Wyoming L.P.
- Oregon-California Trail Association
- People For The West
- Petroleum Assocation of Wyoming
- Petroleum Information Corp.
- Public Land Advocacy
- Questar Market Resources, Inc.
- Qwest Corp.
- Rocky Mountain Elk Foundation
- Safari Club International
- Samson Resources Co.
- Shoshone Business Council
- Sierra Club
- Southwest Forest Alliance
- State Of Wyoming, Department of Transportation
- State of Wyoming, Historic Preservation Office
- Sublette County Commissioners
- Sublette County Conservation District
- Sublette County Extension Service
- Sublette County Weed & Pest
- Sweetwater County Conservation District
- Sweetwater Wildlife Association
- Texaco Exploration & Production
- The Wilderness Society
- Town of Big Piney
- Town of LaBarge
- TRCP
- Trout Unlimited
- U.S. Department of Energy, Western Area Power Administration
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- University of Wyoming, American Studies Program
- University of Wyoming, Renewable Resources
- Upper Green River Valley Coalition
- USDA-Natural Resources Conservation Service
- USDI-Bureau of Reclamation
- USDI-National Park Service, National Historic Landmarks
- USDI-Office of Environmental Policy and Compliance
- USDI-Office of the Regional Solicitor
- Wells Fargo Bank, NA
- Western Land Services
- Western Watersheds Project, Wyoming Office
- Western Wyoming Mule Deer Foundation
- Wildlife Management Institute
- Wyoming Advocates for Animals
- Wyoming Department of Agriculture
- Wyoming Department of Environmental Quality
- Wyoming Department of Transportation
- Wyoming Farm Bureau Federation
- Wyoming Game and Fish Department
- Wyoming Game and Fish Department
- Wyoming Geological Survey
- Wyoming Outdoor Council
- Wyoming People for the USA
- Wyoming State Library
- Wyoming Wilderness Association
- Wyoming Wildlife Federation
- Wyoming Wool Growers Association

Appendix B

Scoping Meeting Materials

You are invited to attend…

PUBLIC SCOPING MEETINGS

The Bureau of Land Management (BLM) invites the public to review a proposal for infill drilling and exploration to develop oil and gas leases within the La Barge Platform Project Area in northern Lincoln and southern Sublette counties.

You are invited to attend any of the four open house meetings hosted by the Pinedale BLM to learn more about the proposed project and to provide your comments.

When and Where?

Kemmerer

August 24 (Monday)

South Lincoln Training & Event Center
215 Wyoming Hwy 233
Kemmerer, WY

LaBarge

August 25 (Tuesday)

LaBarge Town Hall
28 S. LaBarge St.
LaBarge, WY

Marbleton

August 26 (Wednesday)

Marbleton Town Hall
10700 US Highway 189
Marbleton, WY

Pinedale

August 27 (Thursday)

BLM Office in Pinedale
625 West Pine St.
Pinedale, WY

What time?

All meetings will begin at 4 p.m. and end at 7 p.m.

Need more information?

Contact: Bureau of Land Management
LaBarge Project Lead**,** Pinedale Field Office
(307) 367-5352
LaBarge_Platform_WYMail@blm.gov

PUBLIC SCOPING MEETINGS

The Bureau of Land Management (BLM) invites the public to review a proposal for infill drilling and exploration, to develop oil and gas leases within the LaBarge Platform Project Area in northern Lincoln and southern Sublette counties. You are invited to attend any of the planned open house meetings hosted by the Pinedale BLM to learn more about the proposed project and to provide your comments. All meetings will begin at 4 p.m. and end at 7 p.m. at the following locations:

August 24
South Lincoln Training and
Event Center
215 Wyoming Highway 233
Kemmerer, Wyoming

August 25
LaBarge Town Hall
228 S. LaBarge St.
LaBarge, Wyoming

August 26
Marbleton Town Hall
10700 US Highway 189
Marbleton, Wyoming

August 27
Pinedale BLM office
1625 West Pine St.
Pinedale, Wyoming

Need more information? Contact:

Bureau of Land Management
LaBarge Project Lead
Pinedale Field Office
(307) 367-5352
LaBarge_Platform_WYMail@blm.gov

LaBarge Platform Exploration and Development Project

An Environmental Impact Statement (EIS) is being prepared under the direction of the U.S. Department of the Interior, Bureau of Land Management (BLM). The BLM is the lead federal agency for the LaBarge Platform Exploration and Development Project. The EIS will be developed in accordance with the National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality regulations. NEPA requires that environmental information be made available to the public and public officials before decisions are made.

What is Scoping?

Once a federal lead agency decides to prepare an EIS and publishes the **Notice of Intent** to prepare an EIS, **public scoping** begins.

Scoping obtains input from the public and interested federal, state, tribal, and local agencies. Information gained during scoping assists the lead agency identify potential environmental issues, potential alternatives to be considered, and mitigation measures associated with implementation of the proposed project.

The process narrows the scope of issues, so that the EIS can focus on areas of high interest and concern. Your participation in the scoping process is vital to preparing a sound EIS.

How Can I Participate?

The NEPA process provides opportunities for the public to participate in the decision-making process as shown in the chart to the left.

- **Attend** a **public meeting** scheduled for your area to learn more about the project, ask questions, and submit your comments.
- Submit your name and contact information to **be included on the project mailing list** so you are kept up-to-date on project activities.
- **Check the website** periodically for information and updates (http://www.blm.gov/wy/st/en/info/NEPA/pfodocs/labarge_platform.html).
- **Provide comments** at designated periods throughout the NEPA process. You will be notified when the Draft EIS, and Final EIS are available for review. See the next page for tips to provide effective comments.

Tips for Providing Effective Comments

Your participation is important to the decision-making process!

Information received from the public and agencies during the scoping period will help us define the EIS analysis. Your comments on the proposed LaBarge Platform Exploration and Development Project are important!

The following tips are a guide for making effective comments.

Become familiar with what is being proposed by reviewing the BLM website, monitoring the local news, attending public meetings, and asking questions of the BLM.

- ✓ Learn about the NEPA process and when the BLM will receive comments.
- ✓ Understand what decision is to be made.
- ✓ Understand the authority and responsibilities of the decision-making agency, the BLM.
- ✓ Submit your written comments on potential impacts and include ideas for proposed project alternatives.
- ✓ The comments should be substantive, concise, and focused on the proposed project under consideration. To the extent possible, support your statements with explanations, facts, and references.
- ✓ Submit your comments within the timeframes announced. This helps the BLM to address your concerns in the NEPA documents.
- ✓ Make sure that you are on the EIS mailing list to receive notification of public meetings and project information.

NEPA Terminology

(Source: BLM NEPA Handbook H1790-1)

affected environment—a description of the existing environment to be affected by the proposed action or the alternatives under consideration.

alternatives—other options to the proposed action by which the BLM can meet its purpose and need. The BLM is directed by the NEPA to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.…**"**

decision-maker—the BLM official who has been delegated authority to approve an action and is responsible for issuing a decision to implement a proposed action. Synonyms include authorized official, authorized officer, responsible official, and responsible manager.

effect—impact to the human environment brought about by an agent of change or action.

environmental consequences—the known and predicted effects that are related to the issues. The environmental consequences analysis predicts the degree to which each resource would be affected upon implementation of an action.

issue—a point or matter of discussion, debate, or dispute about the potential environmental effects or impacts, of an action. Issues point to environmental effects and may drive the development of alternatives to the proposed action.

no action alternative—the alternative where current conditions and trends are projected into the future. This alternative provides a useful baseline for comparison of environmental effects and shows the consequences of not acting on the purpose and need for the project.

proposed action—a proposal for the BLM to authorize, recommend, or implement a particular action. A proposal may be generated internally or externally.

Throughout the NEPA process, if you have questions or concerns, you can contact:

Bureau of Land Management
LaBarge Project Lead
Pinedale Field Office
(307) 367-5352
LaBarge_Platform_WYMail@blm.gov

SCOPING NOTICE

LABARGE PLATFORM EXPLORATION AND DEVELOPMENT PROJECT ENVIRONMENTAL IMPACT STATEMENT

Bureau of Land Management
Pinedale Field Office

EOG Resources, Inc. (EOG) has notified the Bureau of Land Management (BLM) Pinedale Field Office that they propose to conduct infill drilling and exploration to develop the hydrocarbon resources from oil and gas leases within the La Barge Platform Exploration and Development Project Area (La Barge Platform Project Area) in northern Lincoln County and southern Sublette County, Wyoming (see attached map). EOG's intent is to explore and develop potentially productive subsurface formations underlying oil and gas leases owned by EOG within the La Barge Platform Project Area. EOG proposes to conduct these activities with year-round drilling and completions. While it is anticipated that some impacts from winter drilling may occur, it may also provide opportunities to reduce surface disturbance, air emissions, traffic, and shorten the time of these effects. As of May 2009, the LaBarge Platform Project Area contained an estimated 2,940 already approved and drilled wells, including approximately 678 wells owned and operated by EOG.

The BLM has determined that permitting this proposed project constitutes a federal action that may affect the quality of the human environment. Pursuant to the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Regulations on implementing NEPA, the BLM will prepare an Environmental Impact Statement (EIS) that will describe and evaluate the potential impacts of the proposed action and alternatives. The purpose of the EIS will be to provide the public and decision-makers with sufficient information to understand the direct and cumulative environmental consequences of the Proposed Action and alternatives, and to identify and develop appropriate mitigation measures to minimize environmental impacts.

This notice is to inform the public that the BLM will prepare an EIS which will include analyses of natural gas and oil development in the La Barge Platform Project Area. This Scoping Notice seeks public input on issues, alternatives, the proposed action, and other management aspects in the project area. Cooperating agencies include the State of Wyoming; Lincoln, Sublette, and Sweetwater counties; Lincoln, Sublette, and Sweetwater Conservation Districts; and the towns of Pinedale, Big Piney, Marbleton, and LaBarge.

DESCRIPTION OF THE PROPOSED ACTION

The project area consists of approximately 218,000 acres in an existing oil and gas producing area located in northern Lincoln County and southern Sublette County, Wyoming. The project wells and facilities would be constructed and operated on lands owned by the federal government, the State of Wyoming, and private owners. EOG's oil and gas leases were issued by the Bureau of Land Management (BLM), State of Wyoming, and private owners.

EOG proposes to drill, complete, produce, and eventually reclaim up to 604 new oil and gas wells on an estimated 454 well pads as infill, exploratory, or step-out wells to all productive formations. Target formations include, but are not limited to, the Almy, Transition zone, Mesaverde, Baxter, Frontier, and Dakota formations. The majority of wells would be in the Frontier formation. Well depths would range from approximately 1,000 to 10,000 feet.

Additional oil and gas wells proposed in this area include:

- ExxonMobil proposes 214 horizontally-drilled natural gas wells with a project life of 15 years.
- Chevron USA Inc. proposes 126 oil and natural gas wells.
- Wexpro/Questar companies propose 31 wells.
- Pinedale Investments Inc. proposes 13 wells.

Therefore, a minimum of 1,000 wells will be analyzed for this project area.

Although actual operations are subject to change as conditions warrant, EOG's plan of development is to drill wells at the rate of approximately 60 wells per year over 10 years. The total number of wells drilled and annual drilling rate would depend largely on factors outside of EOG's control such as production success, engineering technology, economic factors, and availability of commodity markets.

Because the proposed Baxter horizontal drilling program is considered to be exploratory, EOG's future plans in the La Barge Platform Project Area and the description of the proposed project are a conceptual representation. An estimated 96% of all new vertical wellbores would be located on new well pads; approximately 54% of all new horizontal or directional wells would be located on new well pads. The productive life of each successful well is estimated to be approximately 40 years.

EOG plans to utilize a combination of vertical, directional, and horizontal drilling techniques and utilize existing infrastructure to the extent feasible to minimize surface impacts over the life of this project. EOG would utilize existing well pads and co-locate new wells throughout the La Barge Platform Project to the greatest possible extent when drilling a horizontal or directional well. The possibilities for siting a new well include locating on:

- An existing well pad, co-located with a producing well;
- A new well pad where it will be shared by more than one new well;
- A new stand-alone well pad.

All operators will adhere to all lease conditions, in addition to all federal and state laws, regulations, and policies. Other aspects of the proposal, including environmental protection measures include the following:

- No new ancillary facilities are required.
- Most equipment at gas wells would be powered by natural gas and solar panels. Power lines would be needed to operate artificial lift equipment at new oil wells.
- Produced water from gas wells would be stored in a tank on the well pad and transported by truck to an approved disposal site. Vehicle traffic would be reduced by having large enough tanks to enable emptying a water storage tank approximately once every 3 to 6 months for long term well operations.
- Produced water and oil from the majority of oil wells would be transported by pipeline to existing central facilities and trucked from the central facility to an approved disposal. A limited number of individual oil wells may require on-site facilities, in which case the water would then be trucked to disposal from the site and the oil would be trucked to sales.

- A typical well pad in the project area would require surface disturbance of approximately 2 to 5 acres. Surface disturbance acreage would be also required for co-located wells on a pad and new road construction.
- All operators will comply with the Wyoming Department of Environmental Quality – Air Quality Division (WDEQ-AQD) Interim Policy on demonstration of compliance with WAQSR Chapter 6, Section 2(c)(ii) for sources in Sublette County (issued July 21, 2008), or rules in effect subsequent to the interim policy. New technologies may be implemented after their effectiveness is tested and determined. Necessary air permits to construct, test, and operate facilities will be obtained from the WDEQ-AQD.
- All internal combustion equipment will be kept in good working order. Best Available Control Technologies (BACT) will be implemented as required by WDEQ-AQD.
- All operators will conduct site-specific surveys or block surveys for cultural and paleontological resources, as applicable. All operators will take appropriate action to avoid or mitigate impacts to these resources, if they are identified, in compliance with all applicable rules and regulations.
- All operators will construct new roads and well sites to standards described in the BLM Gold Book (BLM and USFS, 2007) and in BLM Manual 9113 – Roads.
- All operators will consider installing surface pipelines where necessary to minimize erosion.
- All operators will implement BMPs and will consult with the BLM to determine procedures/construction techniques to minimize erosion and sedimentation.
- All operators will not construct using frozen or saturated soils or during periods when watershed damage is likely to occur.
- All operators will replace reserve pits with closed loop drilling systems for well locations where the water table or other topographic restrictions would interfere with a reserve pit. All operators will line all reserve pits and pad them as necessary to prevent tearing or puncturing of the liner and fluid migration to the subsurface.
- All operators will maintain a 500-foot offset to riparian areas and surface water, or will consult with the BLM to develop site-specific mitigation if no other practical option exists.
- All operators will avoid new construction within all floodplains. No permanent structures will be constructed within its boundary unless it can be demonstrated on a case-by-case basis that there is no physically practical alternative.
- All operators will construct impenetrable containment berms completely around production facilities designed to store fluids (i.e., production tanks, produced water tanks, methanol tanks).
- All operators will paint all new facilities a color that best allows the facility to blend with the background.
- All operators will perform final reclamation by recontouring and revegetating all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography.
- All operators will utilize fencing, as needed, to protect reclaimed areas until vegetation can be established.
- All operators will control weeds on disturbed areas within the exterior limits of the access roads, well pads, and pipeline routes in accordance with approval from the BLM.

- All operators will immediately repair or remedy any damage to the function of range improvements (e.g. fence damage, cattle guard cleaning, livestock loss) from operations.
- All operators will continue to conduct operations to retain access to cattle movement corridors (trails) so that livestock can be managed.
- All pads will be completely fenced and maintained until reclamation is successful.
- All operators will use remote telemetry to monitor wells throughout the field to reduce truck travel in order to minimize the impacts to wildlife.

Where power lines will be needed to operate artificial lift equipment at new oil wells, anti-perch devices will be installed on overhead power lines to reduce perches for predators, thereby minimizing predation of greater sage-grouse and other wildlife.

The complete proposal is on file with the BLM Pinedale Field Office and available for public review.

COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

In compliance with NEPA, BLM will prepare the EIS to analyze the environmental impacts associated with the proponents' proposal described above. BLM has developed a Memorandum of Understanding with proponents to prepare the EIS using a third-party contractor.

One element of the NEPA process is "scoping." Scoping activities are initiated early in the process to:

- Identify reasonable alternatives to be evaluated in the environmental analysis;
- Identify issues of environmental concern related to the proposed project;
- Determine the depth of analysis for issues addressed in the EIS.

This Scoping Notice has been prepared to enable governmental agencies, the general public, and other interested parties to participate in and contribute to the analysis process. Public input is important in establishing the scope of analysis for any NEPA document, and the BLM encourages public participation.

LAND AND RESOURCE MANAGEMENT ISSUES AND CONCERNS

Land and resource management issues and concerns associated with the LaBarge Platform Exploration and Development EIS that would be considered include:

- Known and potential impacts to federally-listed threatened and endangered species;
- Known and potential impacts to BLM-sensitive plant and animal species;
- Known and potential impacts to greater sage-grouse, breeding, nesting, and wintering habitat;
- Known and potential impacts to mule deer crucial wintering habitat and other seasonal ranges;
- Known and potential impacts to pronghorn antelope herd crucial wintering habitat and migration routes;
- Known and potential impacts to range resources;
- Known and potential impacts on cultural resources (prehistoric and historic resources);
- Known and potential social and economic effects to the local communities;
- Known and potential transportation impacts;

- Known and potential impacts to surface and groundwater resources;
- Known and potential impacts to air quality and air quality related values;
- Known and potential impacts to visual resources;
- Revegetation and restoration of short-term disturbances and long-term stabilization, and control of noxious weeds;
- Conformance of the proposed action to BLM'S Resource Management Plan for the Pinedale Field Office.

PUBLIC PARTICIPATION

We invite you to review the proponents' proposal for year-round access and submit written comments. All issues raised in written comments submitted by mail or email will aid BLM in identifying alternatives and assuring all issues are analyzed in the SEIS. Your comments, questions or concerns are encouraged and welcomed. The purpose of the scoping process is to assist federal agencies in identifying issues and concerns with the proposed action (40 CFR 1501.7). Your input will help the agencies to identify reasonable alternatives and complete the analyses of those alternatives.

We ask that your comments be constructive, relate directly to this proposal and impending EIS, that you be as specific as possible, and that you cite any data or other information that you believe would assist BLM in developing the most realistic range of alternative actions and the best-informed environmental impact analysis.

The Pinedale BLM will be hosting open houses for the LaBarge Platform Exploration and Development EIS at the following locations in the region. The open houses will be held from 4:00 p.m. to 7:00 p.m. Questions and comments will be accepted at the open house.

- Kemmerer, Wyoming—August 24 at South Lincoln Training and Event Center, 215 Wyoming Highway 233.
- LaBarge, Wyoming—August 25 at LaBarge Town Hall, 228 S. LaBarge St.
- Big Piney/Marbleton—August 26 at Marbleton Town Hall, 10700 US Highway 189.
- Pinedale, Wyoming—August 27 at Pinedale BLM office, 1625 West Pine St.

To be fully considered, comments must be received in the Pinedale BLM office by September 16, 2009. Written comments must be provided by mail, email or may be delivered to the BLM Pinedale office at 1625 West Pine St., Pinedale, Wyoming. Faxes will be accepted at 307-367-5329. Please send your comments to:

LaBarge Platform Exploration and Development EIS
Bureau of Land Management
Pinedale Field Office
P.O. Box 768
Pinedale, WY 82941

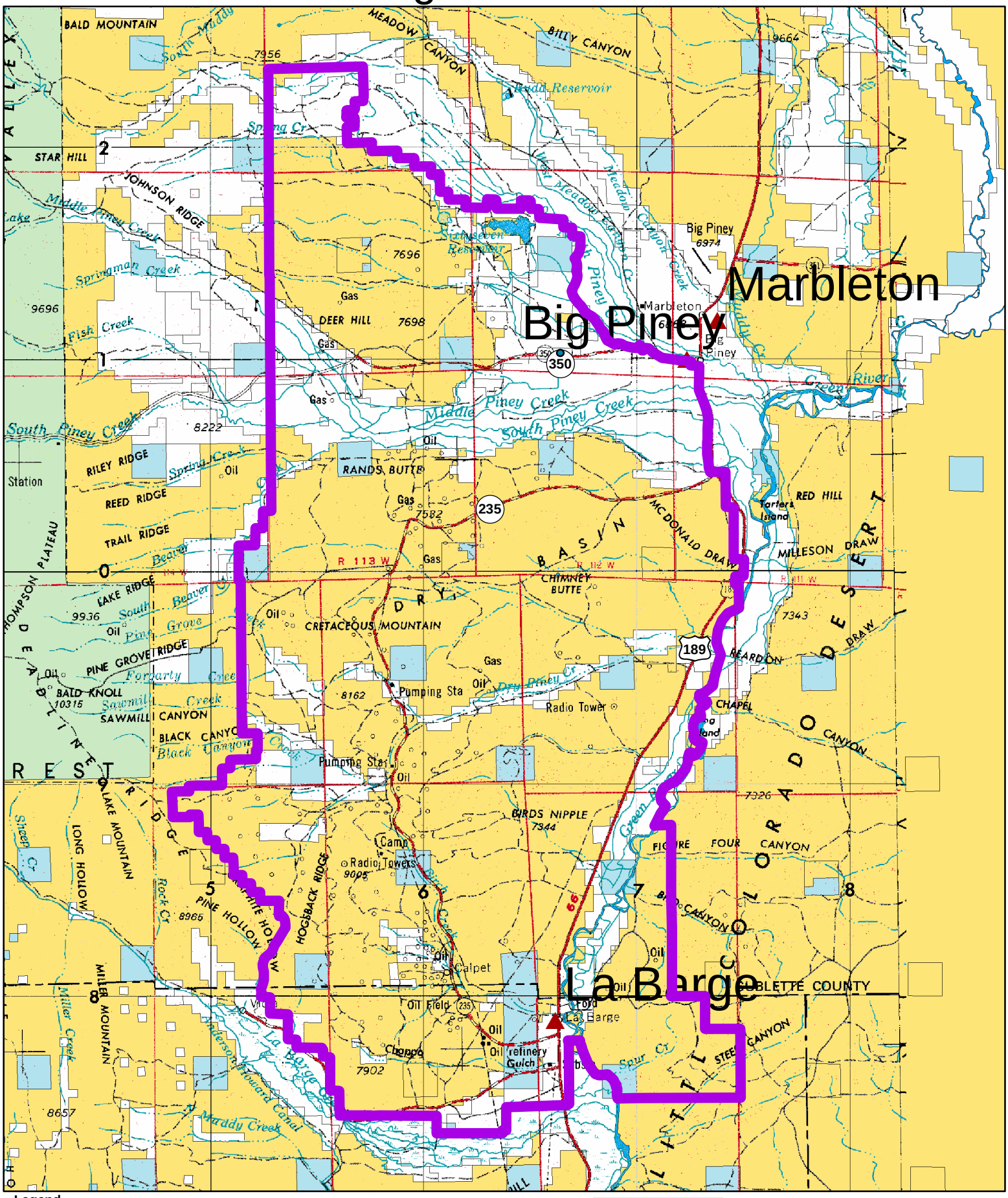
Or by email:

LaBarge_Platform_WYMail@blm.gov

For more information, contact Lauren McKeever at (307) 367-5352 or at the above email address.

This notice has been sent to individuals, industries, organizations, media, and federal, state, and local government entities.

La Barge Platform Infill



LaBarge Platform Exploration and Development Project Summary

This project will evaluate the impacts of infill drilling and exploration of oil and gas producing formations within the La Barge Platform Project Area. The initial proposal was submitted by EOG Resources, Inc.

Where is the project area and how large is it?

- Located in northern Lincoln County and southern Sublette County
- Approximately 218,000 acres
- Most of the land and minerals are managed by BLM, but the project area includes property owned by the State of Wyoming and private owners.

How many wells?

- There are approximately 2,940 active wells currently in the project area.
- The EIS will analyze a minimum of 1,000 new wells to be drilled within this project area, including the following:
    - EOG Resources, Inc.—up to 605 new oil and gas wells (vertical and horizontal drilling)
    - Exxon Mobil—214 horizontally-drilled natural gas wells
    - Chevron USA, Inc.— 126 oil and natural gas wells
    - Wexpro/Questar—31 wells
    - Pinedale Investments Inc.—13 wells

When would these wells be drilled (after the EIS completion)?

- EOG plans to drill approximately 60 wells per year over 10 years.
- Productive life of each successful well is approximately 40 years.

Other information

- EOG and Exxon Mobil both propose year-round drilling and completions.
- New wells would be located on existing well pads or shared pads where possible.
- All operators will adhere to all lease conditions, in addition to all federal and state laws, regulations, and policies.
- An environmental impact statement will be completed to disclose potential impacts to the region that may result from implementing this proposal.
- Air quality modeling will be performed.
- For more information, contact the the BLM PFO Project Lead, (307) 367-5352 or by email at LaBarge_Platform_WYMail@blm.gov.

Please fold in thirds, address out, staple or tape the bottom together, and add a First Class stamp.

Place stamp here

BLM Pinedale Field Office

ATTN: LaBarge Project Lead

PO Box 768

Pinedale, WY 82941

Any comments? Continue comments on back or add one sheet if needed. If more sheets are needed, please insert into an envelope.

The Pinedale Field Office (PFO) of the Bureau of Land Management (BLM) will be preparing an Environmental Impact Statement (EIS) over the next two years. Please complete and return this card to ensure BLM establishes an accurate mailing list to keep you informed of all activities and public meetings associated with this project.

Name and organization you represent (if applicable):

Address: _____

_____ _____ _____

(city) (state) (zip)

❶ **Let us know if you would like to stay informed of the EIS by checking a box below:**

- ❑ Remove me from the project mailing list.
- ❑ Keep me on the project mailing list to receive notifications.

❷ **If you would like to remain on the project mailing list, please let us know the best way to provide notices to you. To save paper, please select website or email below:**

- ❑ By website. I will visit the website: http://www.blm.gov/wy/st/en/info/NEPA/pfodocs/labarge_platform.html whenever I am interested in knowing more about this project.
- ❑ By EMAIL. My email address is (please print):

  _____

- ❑ By mail. My mailing address is above.

As part of this process, BLM will distribute a Draft EIS (several hundred pages long). If you are interested in reviewing the Draft EIS, please help us conserve resources by letting us know your preference:

- ❑ By website. Email (at address above) me when the document is available and I will download it from the website.
- ❑ Public Repositories. Email (at address above) me when the Draft EIS is available and I will visit the local library or PFO to view a copy.
- ❑ Mail a CD to the address listed above.
- ❑ Mail a hard copy to the address listed above.

PLEASE READ: *Your contact information is for public notification purposes only. It will not be distributed to other entities.*

At the public scoping meetings in August, 2009, copies of the full project description submitted by EOG Resources, Inc., was available for public review, in addition to summaries of proposed development from ExxonMobil, Chevron, and Wexpro. After the public meetings were held, a comprehensive project description that incorporates the proposals of all operators was submitted to BLM. In order to minimize confusion, the project description included in this appendix is the combined operators' version submitted in December, 2009. The table below summarizes the differences between the two versions.

Summary of Major Changes and Clarifications Made to LaBarge Platform Exploration and Development Project Description Submitted to BLM December 2009

Section	Change or Clarification	Purpose
Overall Document	Project description now includes the combined proposal of the four major operators (EOG Resources, Inc., ExxonMobil Production Company, Chevron U.S.A., Inc., and Wexpro Company)	To have a single project description incorporating the proposed development of all four operators.
Overall Document	Updated Project Description tables	To reflect development by all four operators.
Map 1	Updated Map 1 to include geographic areas A-F.	Show areas of different operatorship to correspond with Table 3 in Section 5.1
Section 2.0	Addition of a discussion of federal units and non-unitized lands.	To explain the use of designated operators on federal units and the use of a unified Plan of Development on non-unitized land.
Section 4.0	Updated reference for the Pinedale 2008 RMP.	The Pinedale RMP has been updated.
Section 5.1 (Table 3)	Provided a new table with Plan of Development by 6 geographic areas.	Show differences in development strategies by geographic area.
Section 6.2	Added information on maximum access road length in addition to average length.	To clarify potential length of access roads associated with well pads.
Section 6.2	Added information on potential size of multi-well pads Tip-Top and Hogsback units.	To clarify potential size of multi-well pads in these units
Section 6.4	Updated number of potential drilling rigs used at any one time to drill project wells.	To update drilling section to reflect multiple operators.
Section 6.10	Added information on how need for new ancillary facilities would be analyzed.	To clarify how new ancillary facilities would be addressed.
Section 6.10.3	Updated information on hydrostatic test water quantities.	To reflect multiple operators use of hydrostatic test water.
Section 7.1	Removed reference to July 2008 Interim Policy and replaced with reference to WDEQ policies and rules.	To clarify Operators will comply with all WDEQ policies and rules.

PROJECT DESCRIPTION

LA BARGE PLATFORM EXPLORATION AND DEVELOPMENT PROJECT

EOG RESOURCES, INC.

EXXONMOBIL PRODUCTION COMPANY

CHEVRON U.S.A. INC.

WEXPRO COMPANY

DECEMBER 2009

Table of Contents

Tables

Map

Acronyms

AO	authorized officer
APD	Application for Permit to Drill
AQD	Air Quality Division
BLM	Bureau of Land Management
CAP	Coordinated Activity Plan
COA	Conditions of Approval
CFR	Code of Federal Regulations
EIS	environmental impact statement
EOG	EOG Resources, Inc.
FEL	from east line
FLPMA	Federal Lands Policy and Management Act
FNL	from north line
FSL	from south line
FWL	from west line
LBP	La Barge Platform
N	north
NE	northeast
NEPA	National Environmental Policy Act
NOS	Notice of Staking
NOx	Nitrogen oxides
NW	northwest
R	Range
RCRA	Resource Conservation and Recovery Act
RMP	Resource Management Plan
ROW	right-of-way
SE	southeast
SW	southwest
T	Township
Tpy	Tons per year
USFS	United States Forest Service
TMD	total measured depth
TVD	total vertical depth
VOC	Volatile organic compounds
W	west
WDEQ	Wyoming Department of Environmental Quality
WOGCC	Wyoming Oil and Gas Conservation Commission

1.0 PROJECT OVERVIEW

EOG Resources, Inc., ExxonMobil Production Company, Chevron U.S.A. Inc., and Wexpro Company (collectively referred to as the "Operators") propose to explore for and develop potentially productive subsurface formations underlying oil and gas leases owned, at least in part, by the Operators within the La Barge Platform (LBP) area of northern Lincoln County and southern Sublette County, Wyoming. The Project Area consists of approximately 218,000 total acres. The Operators propose to drill, complete, produce, and eventually reclaim up to 838 new oil and gas wells on an estimated 463 new well pads as infill (vertical and horizontal), exploratory, or step-out wells to all productive formations, including the Almy, Transition zone, Mesaverde, Baxter, Frontier, Muddy, Dakota, Nugget, Bear River, and possibly other formations.

Target depths for the wells would range from approximately 1,000 to 10,000 feet. The productive life of each well would be up to 40 years. Although actual operations are subject to change due to conditions beyond the control of the Operators, each Operator plans to drill additional wells over the next 15 years. The total number of wells drilled would depend largely on factors outside of the Operators' control such as production success, engineering technology, economic factors, rig availability, and availability of commodity markets.

The following description is a conceptual representation of the Operators' future plans in the Project Area. The Operators would drill up to 263 wells vertically from new well pads and up to 575 wells either horizontally or directionally from new or existing well pads. The Operators plans to utilize a combination of vertical, directional, and horizontal drilling techniques in the Project Area will result in continued efficient development of remaining oil and gas reserves from the LBP. In addition, utilization of existing infrastructure to the extent reasonably possible will significantly minimize surface impacts over the life of project.

The Operators would utilize existing well pad disturbances and/or would co-locate new wells with existing wells throughout the Project Area to the greatest possible extent when drilling future horizontal or directional wells. The possibilities for locating new well(s) include:

- On an existing well pad, co-located with a producing well (may require additional construction to enlarge an existing pad);
- On a new well pad with multiple wellbores; and
- On a new one-well pad.

The average density of new surface well pads throughout the Project Area is one new well pad per each 1,263 acres, or one pad per two square miles of land. The types and anticipated corresponding numbers of new wells and new well pads proposed for this project are summarized in Table 1. The proposed wells would be distributed in geographic areas identified by the Operators within the Project Area, as shown on Map 1. Section 6.1 contains a description of wells and well pads proposed for each geographic area (Areas A through F) in the Project Area. The geographic areas were determined by the Operators based on unit boundaries and operatorship.

The drill depth and geologic characteristics of the target formation determine the type of drilling technology used for a particular well. In general, shallow formations would require vertical wellbores and the Frontier Formation would have both vertical and horizontal/directional wellbores.

Map 1. Project Area Boundary and Geographic Areas A through F

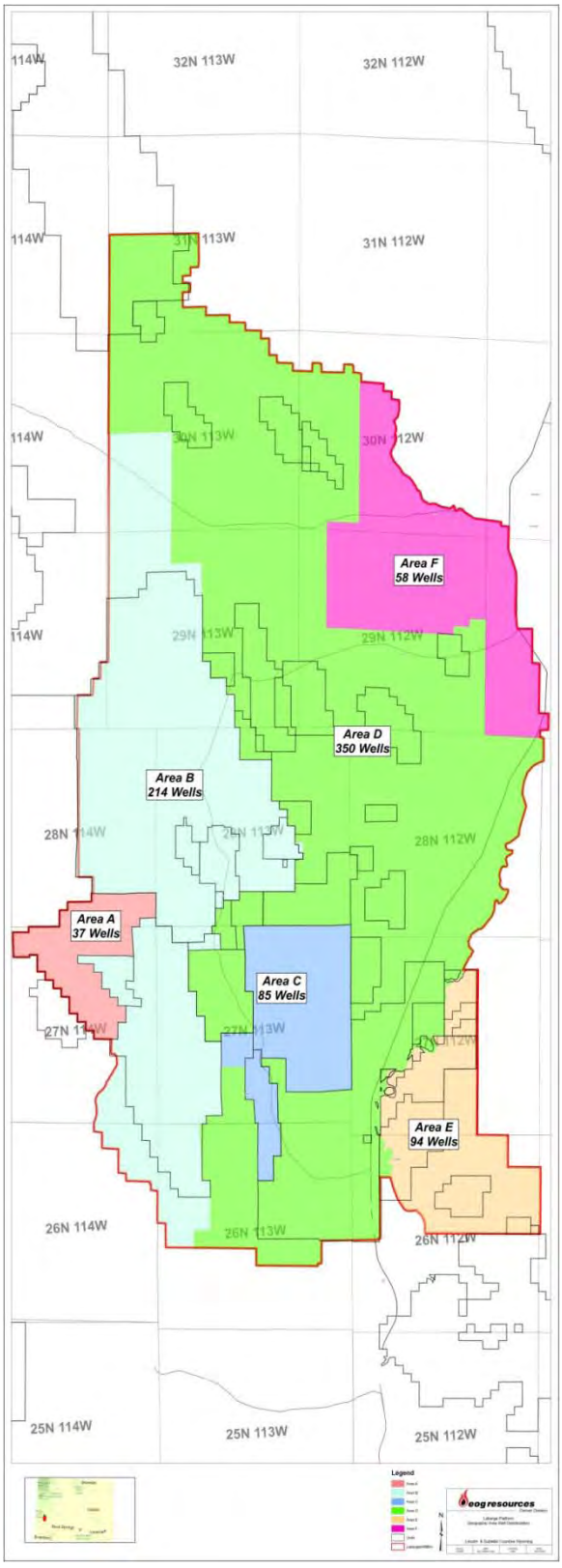


Table 1. Number of Wells by Drilling Technology and Formation

Type of Drilling Technology and Formation	New Wells	% of Total Well Count	New Well Pads
Vertical Frontier	128	15%	128
Directional/Horizontal Frontier/Baxter/Bear River	538	64%	182
Vertical Shallow Formations (Almy, Transition, Mesaverde)	172	21%	172
Total	**838**	**100**	**463**

The effective drainage area of vertical gas wells varies from 40 to 80 acres, due to geological and reservoir conditions. Within the Project Area, the Operators expect most vertical wells would be located at 80-acre surface density and downhole spacing, but there will be some variation. Where a horizontal Frontier or Baxter well is drilled, a well is anticipated to drain the natural gas from 160 to 320 acres, resulting in 2 horizontal wells per section (if 320 acres) or 4 horizontal wells per section (if 160 acres). The resultant effective spacing will be equivalent to 40 acres. The successful use of horizontal drilling would minimize surface impacts by effectively producing natural gas from an equivalent of two to four vertical wells.

The proposed shallow oil wells would continue at the present 10-acre vertical development because their shallow target formations and multiple productive intervals preclude the use of horizontal or directional drilling technologies. Operators may consider 5-acre spacing for oil well development in some parts of the Project Area, subject to regulatory approval where needed.

Project development would result in the construction of new roads and continued use of roads previously constructed and currently used in the Project Area. No major ancillary facilities are anticipated at this time. However, the need for new ancillary facilities would be analyzed on a case by case basis through the NEPA process if such a need is identified in the future. Production equipment at gas wells would be powered by currently installed electric power and natural gas. If feasible, some equipment requiring electricity would be powered by solar panels. Power lines would be needed to operate artificial lift equipment at new oil wells (see Section 6.10.1 for more information). Existing power lines to well pads would also continue to be used, and power lines to new locations may be installed on a site-specific basis.

Produced water from gas wells would be stored in a tank on the well pad and transported by truck to an approved disposal site. Vehicle traffic would be reduced by installing sufficiently large tanks to facilitate storage. Generally, use of 210 to 500-bbl tanks would allow Operators to empty a water storage tank only when necessary, greatly reducing project-related truck traffic. An average of 7 truck trips per day would haul produced water (see Section 6.10.3 for more information). Produced water and oil from the majority of oil wells would be transported via buried pipeline or truck to sales and/or existing central facilities and trucked from the central facility to an approved disposal site in the case of water and to sales in the case of the produced oil. Some oil wells may require on-site facilities, in which case the water would then be trucked to disposal from the site and the oil would be trucked or piped to sales.

2.0 PROJECT LOCATION

The Project Area is located within the Upper Green River Basin, 60 miles northwest of Rock Springs, Wyoming, and covers approximately 218,000 acres east and west of the Green River (**Map 1**). General public access to and within the Project Area is from U.S. Highway 189, State Highway 235, and Whelan

Road. Direct access would be via the existing road network, which consists of arterial roads and individual well access roads.

The Project Area is an existing oil and gas producing area on surface lands owned by the United States government, State of Wyoming, and private parties (Table 2). The Bureau of Land Management's (BLM) Pinedale and Rock Springs Field Offices administer federal lands and minerals in the Project Area.

Table 2. Project Area Surface and Mineral Ownership

Owner	Surface (approx. acres)	Minerals (approx. acres)
BLM	154,000	172,000
State of Wyoming	11,000	46,000
Private/Fee	53,000	
Project Area Total	**218,000**	**218,000**

The Project Area includes federal units in addition to non-unitized lands. Federal unit regulations require the lessees in the unit to designate a single operator whose actions and activities will benefit the interests of the majority of the leases committed to the unit. Having one designated operator for each unit provides significant benefits for managing surface resources and environmental values because BLM does not have to contend with multiple operators. On non-unitized federal leases, it is not uncommon to have multiple operators pursuing drilling on individual leases. Instead, a unified Plan of Development is required annually which allows orderly development of subsurface resources to occur while protecting environmental values and surface resources. Spacing rules are vacated for all federal exploratory units in Wyoming, including those in the Project Area, but subject to unit-specific setback requirements.

3.0 PURPOSE AND NEED

The purpose of the project is to:

- Allow the Operators to exercise their lease rights to reasonably drill and develop their leaseholds and extract the hydrocarbon resources from several hydrocarbon-bearing reservoirs, including the Almy, Transition zone, Mesaverde, Frontier, Baxter, Bear River, Muddy, Dakota, and possibly other formations.
- Evaluate the technical and economic viability of utilizing horizontal drilling in the Project Area to maximize production of the mineral resource while minimizing the amount of surface disturbance necessary to do so.
- Further define completion techniques associated with the proposed drilling technologies to economically produce hydrocarbons in the Project Area.
- Provide additional data with which to evaluate future well spacing.
- Provide additional data for use in evaluating the level of activity of future drilling in the Project Area.
- Ascertain the viability of drilling and completing throughout the year.
- Contribute to the available supply of natural gas, a clean-burning fuel.
- Generate federal and state taxes and/or royalty revenues.

- Support local economies by providing and maintaining employment opportunities and expanding the tax base.

4.0 MANAGEMENT PLAN CONFORMANCE

The proposed project is subject to conformance with the Pinedale Resource Management Plan (RMP) (BLM 2008) and the Green River RMP (BLM 1997). The Pinedale RMP (BLM 2008) states:

> The Approved RMP provides for accelerated development of known and existing oil and gas fields and resources, while maintaining viable wildlife habitats and open spaces in other areas. The Approved RMP also provides for site-specific management of intensive oil and gas development through field-level environmental analysis and decisions and implementation of operating standards and best management practices.

The Green River RMP (BLM 1997) states:

> The objective for management of the BLM-administered Federal minerals is to maintain or enhance opportunities for mineral exploration and development, while protecting other resource values (page 11).

Oil and gas extraction in the BLM Pinedale and Rock Springs field office areas is also guided by the decisions made in applicable BLM NEPA documents, including the Coordinated Activity Plan (CAP) for the Big Piney/LaBarge Area Environmental Assessment and Finding of No Significant Impact (BLM 1991) and the Enron Oil & Gas Company East LaBarge Infill Drilling Project Environmental Assessment and Finding of No Significant Impact (1992), which are incorporated by reference and available at the BLM field offices. Other NEPA documents include the Decision Record, Finding of No Significant Impact and Environmental Assessment for Mobil's Tip Top / Hogsback Unit Natural Gas Project (1994) and the Supplement for the 1995/1996 Drilling Program (1996).

5.0 DEVELOPMENT PLANS

The proposed wells and well pads would be distributed in geographic areas identified by the Operators within the Project Area, as shown on Map 1. Section 1.1 contains a description of wells and well pads proposed for each geographic area (Areas A through F) in the Project Area.

5.1 GEOGRAPHIC AREAS

Varying well densities and development strategies are proposed for each of the geographic areas shown on Map 1. The differences in development strategies are based on operatorship, types of wells proposed, and level of existing development and infrastructure. Table 3 presents a summary of the wellbores and well pads proposed for each geographic area. The Operators intend for their development plans to be specific to each identified geographic area.

Table 3. Plan of Development by Geographic Area

Geographic Area ID	Acreage	Well Count	New Well Pads
A	6,000	37	18
B	54,000	214	9
C	12,000	85	57
D	112,000	350	269

Geographic Area ID	Acreage	Well Count	New Well Pads
E	14,000	94	52
F	20,000	58	58
Total	**218,000**	**838**	**463**

5.1.1 Area A

Area A encompasses the Dry Piney Unit and consists of approximately 6,000 acres. Up to 37 gas wells are proposed to be drilled in this area over the 15 year timeframe of the proposed action. All of the wells in this area would be drilled to the Frontier formation using vertical wellbores. It is anticipated that approximately 18 new well pads may be constructed in Area A, though drilling from existing pads would be determined on a case-by-case basis based on geologic and economic conditions.

5.1.2 Area B

Area B encompasses the Hogsback and Tip Top Units, other units, as well as non-unitized land. Area B consists of approximately 54,000 acres. Up to 214 wells are proposed to be drilled horizontally to the Cretaceous Formations, including, but not limited to, the Muddy, Mowry, and Frontier formations over the next 15 years. The wells would be drilled from a combination of existing well pads and 9 new well pads. Existing well pads would need to be expanded to accommodate new wells, and four wells may be drilled from each new pad. Table 3 presents a summary of development plans for Area B.

5.1.3 Area C

Area C encompasses the Birch Creek and La Barge Units, totaling approximately 12,000 acres. Up to 85 wells may be drilled to the Baxter, Frontier, and Bear River formations in Area C over the next 15 years, which is expected to be comprised of 35 vertical wells and 50 horizontal or directional wells. Up to 57 new well pads may be constructed for drilling the 85 new wells proposed.

5.1.4 Area D

Area D is comprised of 112,000 acres within the Project Area, and encompasses the Green River Bend, North LaBarge Unit, numerous other units, and non-unitized land. Continued development of both oil and gas wells would occur under the proposed action. Up to 200 vertical or horizontal gas wells would be drilled on up to 119 new pads. Up to 150 vertical shallow oil wells would be drilled in this area on 150 new pads. A total of 350 wells could be drilled in this area over the next 15 years.

5.1.5 Area E

Area E encompasses the area east of the Green River in the Rock Springs Field Office management area, consisting of approximately 14,000 acres. The East LaBarge Unit, Stead Canyon Unit, other units, and non-unitized lands are included in this area. Up to 94 wells are proposed to be drilled in Area E on existing pads and up to 52 new well pads.

5.1.6 Area F

Area F is comprised of primarily state and private land within the Project Area. Of the approximately 20,000 acres in Area F, approximately 9,000 acres are leased and unleased federal acres. It is estimated that up to 58 federal wells may be drilled in this area over the life of the project, though specific detail of development within this area is unknown by the Operators participating in this EIS. The level of development in this area is based on a reasonably foreseeable scenario of 160-acre downhole spacing of

federal wells in this area. Due to lack of specific operator information, all wells in this area are assumed to be drilled vertically from new well pads.

The remainder of this Project Description applies to operations within the entire Project Area.

5.2 YEAR-ROUND DRILLING AND COMPLETIONS

The Operators propose to conduct drilling and completion operations throughout the year. To do so, the Operators request, as part of its Proposed Action, annual exceptions or waivers from surface use conditions that apply seasonal use timing limitations associated with individuals of the following species and/or their habitat:

- Big game, including pronghorn, mule deer, elk, and moose
- Greater sage-grouse

Each Operator would provide separate drilling plans each year for their specific geographic areas where exceptions from seasonal use timing limitations would be requested. The drilling plan would include details on use of existing pads for disturbance, traffic limitations, and remote monitoring. The drilling plan would be for specific geographic areas in which exceptions to winter stipulations would be requested. The winter drilling area may remain the same over multiple years, or may shift depending on drilling targets, production results, or new information. The winter drilling geographic area would be determined in consideration of wildlife habitat and population needs. Permitting and construction of new well pads and access roads would occur prior to winter restriction timeframes so that only drilling, completion, installation of production facilities, and production operations would occur during the winter.

The Operators are committed to mitigating potential impacts associated with winter drilling and will consider mitigation measures to address wildlife mortality along Calpet Road, habitat restoration, and other projects. Further details on the winter activity plan process, including mitigation, would be determined through consultation with the BLM and the cooperating agencies.

6.0 PROJECT OPERATIONS

6.1 PRE-CONSTRUCTION ACTIVITIES

Prior to the start of construction activities, the Operators will:

- Submit site-specific applications (Notice of Staking [NOS], Application for Permit to Drill [APD], Right-of-Way [ROW] application).
- Survey and stake the location.
- Submit detailed construction plans, as needed.
- Participate in an onsite evaluation.
- Perform cultural resource, biological, and/or other surveys, as required.

Construction or surface disturbing activities will occur generally during daylight hours only and only after approval of an APD. Infrequent circumstances may require construction to occur during nighttime hours.

6.2 ACCESS ROADS

Project development would result in the use of new roads as well as roads previously constructed and currently used in the Project Area. To avoid unnecessary surface disturbance and minimize impacts from well pad siting and road construction, the Operators would utilize satellite or other aerial imagery to digitally locate the existing infrastructure, including well pads, roads, and pipelines, and determine the most suitable locations for new surface disturbance.

The digital aerial spatial data would allow the Operators to efficiently plan new well and access road locations by:

- Maximizing the use of the existing road system;
- Minimizing the number of loop roads;
- Minimizing the crossing of side slopes greater than 25 percent;
- Minimizing profile grades; and
- Minimizing drainage crossings, with emphasis placed on drainages with potentially large runoff flows and floodplains.

In addition, the Operators will submit a Transportation Plan to the BLM concurrent with EIS development to more clearly identify measures taken to minimize road and traffic-related impacts during project development.

The Operators would construct new roads and well sites to standards described in the BLM publication *Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition*, called the Gold Book (BLM and USFS 2007) and in BLM Manual 9113 – Roads, and would incorporate site-specific best management practices to be determined at the onsite inspection. Travel during construction would be restricted to the 40-foot wide ROW unless modifications must be made to accommodate slope conditions.

Roads would be built with standard cut-and-fill and grading techniques and maintained to provide year-round access. All construction materials for project access roads would consist of native borrow and soil accumulated during road construction. Access roads would be surfaced with gravel or other appropriate material unless sufficient natural gravel exists, as determined by the AO on a site-specific basis. Gravel and rock would be obtained from existing permitted or private sources. Road crossings would incorporate culverts, as needed and/or required. The Operators would utilize materials such as rip rap to prevent erosion and head cutting from culverts and other drainages. Drainage ditches and culverts would be designed to prevent the accumulation of silt or debris and will not be blocked by the roadbed. Water would be diverted from the roadway at frequent intervals, as necessary.

Existing roads that require upgrading would also meet standards appropriate to the anticipated traffic flow and all weather road requirements. Upgrading may include ditching, drainage, graveling, crowning, and capping the roadbed as necessary to provide a well-constructed, safe roadway. Upgrading will not be performed during muddy conditions.

Most new access roads would be constructed as laterals from existing roads. The amount of surface area needed for roads depends upon topography and the types of loads they would carry. Road ROWs in the Project Area are typically 40 feet wide. The running surface of access roads is 16 to 20 feet wide. Access road lengths would vary according to the location of a specific well and its relation to the topography and existing road network. The Operators estimate that the average well pad access road length would be approximately 0.12 mile but a few individual roads may be up to 2 miles long. The exact location of well access roads would be determined at the time of the onsite with the appropriate surface management agency.

6.3 WELL PADS

Well pads would be constructed from the native sand/soil/rock materials present. Mineral materials would not be required. Locations would be leveled by balancing cut and fill areas. Construction practices may include blasting or ripping to achieve a level pad. Blasting may be required when bedrock is near the surface. Cut-and-fill slopes would be designed to allow for retention of the topsoil. Topsoil and native vegetation would be removed and stockpiled for use in the reclamation process, including the re-establishment of vegetation.

A well pad would typically include a 6 to 8-foot wide cellar to allow access to casing heads, mouse and rat holes adjacent to the wellbore to accommodate drilling operations, a flare pit, and a reserve pit. A fenced reserve pit, approximately 10 to 12 feet deep, would be excavated within the pad to temporarily store drilling fluids, cuttings, and water produced during drilling operations. The dimensions of pits vary according to well depth and size and shape of the location, but typical dimensions are 135 feet by 60 feet. All reserve pits are lined and padded, as appropriate and necessary to prevent tearing and/or puncturing of the liner. Each pit would be constructed in a way that minimizes the accumulation of surface runoff into the pit through the use of strategically placed subsoil/topsoil storage areas and/or the construction of berms and diversion ditches. If the Operators plan to drill more than one well from a single pad, the reserve pit would be re-used for the following wells. Fluids in the reserve pit from the first well would be allowed to evaporate and be transported off the location by truck for reuse in drilling operations or to an approved disposal facility. The Operators would attempt to determine whether a subsequent well would be drilled from a pad within six months of drilling the first well. In general, the Operators would not perform interim reclamation until all wells are drilled on a pad. If, at the end of six months, an Operator has not performed interim reclamation because a subsequent well had not been drilled, the Operator would either reclaim the part of the well pad not necessary for operation of the first well or would contact the AO to determine a future course of action. The fencing surrounding the pit would remain and be maintained to prevent access by range stock or wildlife until the reserve pit is reclaimed.

Operators would avoid construction in the 100-year floodplain of the Green River. Operators would employ a professional hydrologist or utilize persons trained by the professional hydrologist to determine the location of the floodplain where the location of the floodplain is questionable. No permanent structures would be constructed within the floodplain boundary unless it can be demonstrated on a case-by-case basis that there is no physically practical alternative. Reserve pits would be replaced by closed loop drilling systems in locations where constructing a reserve pit would interfere with the water table, as determined at the time of permitting a well.

Access road and well pad construction typically takes 3 to 10 days, but could be longer depending on terrain and site limitations. Between two and eight workers may be present on location during construction activities at any given time, depending on availability and types of equipment and specific well construction requirements. Personnel would access the location using an average of three light trucks each day during construction of the access road and well pad. Construction equipment may include bulldozers, motor graders, scrapers, backhoes, and trenchers.

The size and dimensions of a drill pad would depend on topography and specific well needs, such as the drilling rig to be used. In general, shallow vertical wells require smaller well pads (e.g., 1 acre) than deeper vertical and/or horizontal wells (e.g., up to 10 acres). The average well pad size for wells in the Project Area, including both deep and shallow wells is 1.8 acres. Drilling a horizontal or directional well would not result in significant differences in construction procedures, but would typically require a larger pad size to accommodate a larger drilling rig capable of reaching the measured depths typically required for a horizontally drilled Frontier well. The traditional single-well location design that has been utilized in the Project Area in the past would be modified to drill more than one well on a shared location. If a second well were to be drilled from an existing pad, an estimated additional 0.5 acre would initially be required. Multi-well pads in the Tip Top and Hogsback Units may be as large as 10 acres to accommodate numerous wells.

Long-term disturbance would be the amount of surface remaining on the well pads after the reserve pit and other areas unnecessary for ongoing and future operations are reclaimed. After interim reclamation, long-term disturbance associated with an average single-well pad would be approximately 0.50 acre. Long-term disturbance associated with an average multi-well pad would increase by 0.25 acre for each new well. Long-term disturbance for multi-well pads in the Tip Top and Hogsback Units may be up to 4 acres to accommodate production facilities for multiple wells.

6.4 DRILLING

Following construction of the access road and well pad, a drilling rig would be transported to the well site and erected on the well pad. The Operators anticipate that no more than 12 drilling rigs would be used at any one time to drill the project wells. Multiple wells on pads would likely, but not necessarily, be drilled sequentially. Operators would, however, perform interim reclamation on all well pads as soon as possible after wells are placed on production. Also refer to the section describing "interim reclamation."

Wells would be drilled utilizing conventional, mechanically powered mobile drilling rigs. The rig would be erected at the drill site after the conductor pipe has been set. Drilling operations for vertical wells would typically consist of drilling surface hole, running and cementing surface casing, drilling production hole, and running and cementing production casing. Occasionally intermediate casing would also be run. Intermediate casing would also be required on horizontal wells in most cases. The rig would be dismantled and demobilized from the location after production casing is run and cemented.

Drilling fluids consist of a fresh water/gel mixture, with water being the main constituent. Drilling fluids would be re-used for subsequent wells to the extent possible; however, Operators cannot estimate the amount of fresh water that would be saved by such re-use at this time. Formation stabilizing and hole cleaning materials may be added to the drilling fluid to achieve borehole stability and minimize possible damage to the gas producing formations. Oil based drilling fluids are not anticipated to be utilized for horizontal drilling operations based on the Operators' prior experience with horizontal drilling in the Frontier formation. No hazardous substances would be placed in the reserve pit. Reserve pits would be constructed so as not to leak, break, or allow discharge and in accordance with APD COAs. The reserve pit would be fenced on three sides during drilling operations and on the fourth side when the rig moves off the location. Fences would be constructed according to BLM requirements and as described in Onshore Order #7.

During drilling operations, a blow out preventer would be installed on the surface casing and intermediate casing, as required; to provide protection against uncontrolled entry of reservoir fluids into the wellbore should reservoir pressures exceed the hydrostatic pressure of the wellbore fluid. Such equipment would conform to regulatory requirements. In addition, a flow control manifold consisting of manual and hydraulically operated valves would be installed at ground level per regulatory requirement.

Prior to setting production casing, open hole electric and radioactive logs may be run to evaluate production potential. If deemed economically justified, steel production casing would be run and cemented in place in accordance with the well design and as specified in the APD and COAs. Evaluation logs may be run subsequent to setting and cementing production casing in lieu of open hole logs if approval has been granted by the regulatory agency.

The types of casing used and the depths to which they are set would depend upon the physical characteristics of the formations that are drilled and the pressure requirements anticipated during completion and production operations. All casing would be new or reconditioned and tested, in accordance with applicable regulations.

Duration of drilling operations on a given well can vary greatly depending on depth and conditions encountered while drilling. A vertical Frontier well typically takes 7 to 10 days to drill. Frontier horizontal wells typically require approximately 20 to 45 days to drill, depending on directional complexity, hole conditions, and length of lateral. Drilling a vertical shallow well typically requires approximately 4 to 10 days, which is primarily dependent on hole conditions that can vary significantly within the Project Area. Drilling operations require approximately 8 to 10 personnel and six vehicles on location at any given time during normal operations. An additional 10 to 15 personnel and six vehicles are required on location to install and cement production casing.

6.5 COMPLETION AND TESTING

A typical cased wellbore in the Project Area consists of conductor pipe, surface casing, and production casing for vertical wells, and generally includes intermediate casing for horizontal wells. The surface, intermediate, and production casing/cementing programs would be designed to isolate and protect shallower formations and aquifers from the production stream and to minimize the potential for migration of fluids and pressure communication between formations. Alternative completion techniques in the horizontal portion of the wellbore may call for uncemented liners with no external isolation packers, uncemented liners with isolation packers, cemented liners/production casing, or other configurations that become viable with changing technology.

Upon release of the drilling rig, completion operations would commence utilizing a well servicing rig. Initial completion operations may also be conducted utilizing cased hole wireline equipment rather than a well servicing unit or coiled tubing unit, until such time that production tubing is installed in the well or other operational requirements dictate the use of a well servicing rig. In general, the completion of vertical wells consists of perforating the production casing, productivity and/or formation pressure testing if deemed necessary, stimulation of the formation(s) utilizing hydraulic fracturing technology, flow back of fracturing fluids, flow testing to determine post fracture productivity, and installation of production equipment to facilitate hydrocarbon sales. Horizontally drilled wells could be completed utilizing a variety of completion techniques depending on the mechanical configuration of the lateral. In general, based on current technology and well performance from existing horizontally drilled wells on the LBP, multiple stage stimulations in laterals with cemented production casing would be the most likely completion strategy.

Fracture fluids are recovered and hydrocarbons may be flared during testing operations, which are conducted on an as needed basis. Flared gas volumes are measures in accordance with BLM and WOGCC rules. Current fracture technology utilized in the Project Area includes the use of inert gases in the fracturing fluid, which minimizes the ability to employ “flareless completion” practices during early stage flow back following stimulation. Hydraulic fracture stimulation is required on the majority of wells in the Project Area in order to enhance productivity. Numerous combinations of fluids and proppants have been used historically in the Project Area in the effort to optimize stimulation. Currently, the most common stimulation technique utilizes gelled fresh water, inert gas (carbon dioxide or nitrogen), and fracture proppants to provide the conductivity necessary for productivity improvement. Sand is typically used as a proppant in the stimulation process, depending on the design criteria of individual treatments. Gels and other additives are utilized to increase fluid viscosity to ensure successful stimulation. The fracturing fluid is pumped down the wellbore through the perforations in the casing, and into the formation. Sufficient rate and pressure are reached to induce a fracture in the target formation. No diesel is used in this process. The proppant carried in the fluid serves as a bridge to keep the created fracture open and to provide a flow path that allows reservoir fluids to move more readily into the wellbore.

Post stimulation flow tests allow for recovery of stimulation fluids and evaluation of well productivity. Duration of the tests vary depending on individual well performance, but typically are conducted only long enough for fluid rates to drop to levels that allow the use of permanent production equipment and to reduce inert gas content to meet sales gas standards of third party gatherers. Flaring is typically conducted over a period ranging from 1 to 3 days, depending on the amount of water in the flow back stream. Flared gas is measured using choke nipple calculations or through a temporary flow test separator and metering facility. Flaring takes place at the end of a horizontal flow line placed at a temporary pit designed for that specific purpose or at a vertical flare stack. Flaring occurs at a distance from the wellhead that ensures equipment and structure protection and personnel safety. Following the initial flow period, the well will be shut in until facilities are in place to allow the well to be placed on sales. In some cases, production facilities would be installed prior to completion in order to provide the capability of turning the well to

sales immediately following testing. Fluids, primarily water, recovered during flow back operations will be contained in the reserve pit or tanks on location until they are disposed of at disposal wells.

Completion and testing operations require approximately 3 to 10 days to perform, but may be longer depending on the complexity of the completion program. Two to 30 people and 1 to 20 vehicles are required on location, depending on the type of operation occurring at any particular time.

6.6 WATER USAGE SUMMARY

In addition to water used for drilling and completion purposes, fresh water will also be used for hydrostatic testing of the gathering lines and for dust abatement and soil compaction during construction. All water will be obtained from permitted sources including:

- Green River #1 Water Haul located in Lot 5, Section 5, T26N, R113W, Lincoln County, Wyoming.
- Middle Piney Creek Water Haul located in the northwest quarter of the southwest quarter of Section 11, T29N, R113W, Sublette County, Wyoming (S Wells).
- Middle Piney Water Haul #2 located in Section 32, T30N, R113W, Sublette County, Wyoming (S Wells).
- Green River Bend Unit Water Source Well #1 located in Section 31, T27N, R112W (SE/NW).
- Tip Top Water Source Well #1 located in Section 28, T28N, R113W (SE/NE).

No new water source wells are proposed as part of this project. Water may be recycled for use in drilling, completion, workover, well abandonment, and hydrostatic pipeline testing operations. Stimulation fluids recovered during flow back and subsequent production operations will be temporarily contained in the reserve pit or in tanks on location and subsequently disposed of in accordance with requirements as discussed elsewhere.

Depending on the formation and type of well, between 2,000 and 14,000 barrels of water (one barrel = 42 gallons) are needed to perform drilling operations; however, when appropriate and approved by the appropriate regulatory authority, some water may be conserved by the reuse of some of the drilling fluids in subsequent drilling operations. Approximately 2,500 to 5,000 barrels of water are typically required to complete vertical Frontier wells, and 2,500 barrels to complete vertical shallow wells. Up to 15,000 barrels of water will be needed to perform completion on Frontier horizontal wells, depending on the number of stimulations required on an individual well. Horizontal wells typically require a substantially larger number of fracture stimulations due to the length of completion interval relative to a vertical well.

Up to 50 barrels of water may be used for pressure testing each gas gathering pipeline, depending on length. After testing is completed, the water will be recovered and reused for additional testing or other purposes or will be disposed of in a permitted commercial or Operator owned facility.

Up to 500 barrels of fresh water are typically used per mile of access road to mitigate fugitive dust resulting from construction operations and to aid in compaction of the newly disturbed soil. This water is applied to the access road and well pad only. A small amount of the estimated 500 barrels may be used during drilling operations during the dry summer months. Table 4 summarizes the fresh water that may be used for the project.

Table 4. Estimated Water Use Summary

	Frontier Wells		Shallow Wells[1]
	Vertical	Horizontal	Vertical
Drilling (barrels/well)	6,000	14,000	2,000
Completion (barrels/well)	5,000	15,000	2,500
Number of Wells	91	575	172
Water Use (acre-feet)	95.2	1586.4	73.6
Subtotal = 1755.2 acre-feet			

Other Water Uses			Amount (acre-feet)
Hydrostatic Testing	50 barrels/pipeline	463 gathering lines[2]	2.2
Dust Abatement	500 barrels/mile of access road	52.6 miles of access roads	2.5
Subtotal			**4.7**
Project Total = 1759.9 acre-feet			

[1] Shallow wells include Almy, Transition Zone, and Mesaverde

[2] One gathering line assumed for each wellbore.

6.7 MATERIALS MANAGEMENT

A variety of chemicals, including lubricants, paint, and additives, are used to drill, complete, and produce a well. Some of these chemicals contain constituents that may be hazardous. Hazardous materials include some greases or lubricants, solvents, acids, paint, and herbicides, among others. Potentially hazardous substances used in the development or operation of wells are kept in limited quantities on well sites and at the production facilities for short periods of time. Materials would not be stored at well locations during drilling operations. The transport, use, storage and handling of hazardous materials would follow the procedures specified by the Occupational Safety and Health Act and by the U.S. Department of Transportation under 49 CFR, Parts 171–180. U.S. Department of Transportation regulations pertain to the packing, container handling, labeling, vehicle placards, and other safety aspects.

None of the chemicals that would be used meet the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Manual 1703 – Hazard Management and Resource Restoration. Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act in quantities of 10,000 pounds or more would not be used, produced, stored, transported, or disposed of annually during the drilling, completion, or operation of any well in the Project Area. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in volumes that exceed threshold quantities, would be used, produced, stored, transported, or disposed of while producing any well.

6.8 WASTE MANAGEMENT

Most wastes that would be generated at well locations are exempt from regulation by the Resource Conservation and Recovery Act (RCRA) under the oil and gas exploration and production exemption. Exempt wastes include those generated at the wellhead through the production stream and gas plant. They include produced water, drilling mud, well completion/workover fluids, and soils affected by these exempt wastes. Non-exempt wastes may include spent solvents, discarded lubricants, paints or other substances that contain hazardous materials as defined by RCRA.

Operators develop and maintain Spill Prevention Control and Countermeasure Plans for wells in the Project Area, as required by regulation, to prevent and contain accidental releases.

6.9 INTERIM RECLAMATION

Operators would adhere to the commitments outlined in the La Barge Platform Project Reclamation Strategy (to be provided separately). The Reclamation Strategy provides additional detail on the Operators' commitment to perform reclamation in a way that allows the BLM to meet its objectives while providing Operators with the flexibility to implement reclamation effectively in cooperation with the BLM and reclamation experts. The purpose of reclamation planning is to incorporate measures that will support and return as much of the disturbed acreage in the Project Area to its pre-disturbance condition as quickly as feasible upon conclusion of drilling and completion operations on well pads.

Operators would perform interim reclamation in compliance with Onshore Order # 1. Reserve pits would be reclaimed according to the requirements specified in the approved APD after the pit is dry or the fluids have been removed. Synthetic liners would be handled according to BLM standards before backfilling the reserve pit. The reserve pit, portions of the well location and access road not needed for production operations, and pipeline ROWs would be rehabilitated according to the requirements specified in the approved APD and COAs.

If an Operator plans to drill multiple wells from a single pad, the reserve pit may be re-used for more than one well. Fluids in the reserve pit from the first well would be allowed to evaporate, transported off the location by truck, and either reused at another pad or disposed of. The Operator would attempt to determine whether a subsequent well would be drilled from a pad within six months of drilling the first well. In general, an Operator would not perform interim reclamation until the subsequent well(s) were drilled. If, at the end of six months, an Operator has not performed interim reclamation because a subsequent well had not been drilled, the Operator would either reclaim the part of the well pad not necessary for operation of the first well or would contact the AO to determine a future course of action.

During the time that a reserve pit is not reclaimed, the fencing surrounding the pit would remain and be maintained to prevent access by range stock or wildlife. Operators would utilize fencing, as needed, to surround reclaimed areas to protect new vegetation resulting from interim reclamation from grazing livestock and wildlife

6.10 PRODUCTION

Operators would continue to utilize the existing ancillary facility infrastructure within and near the Project Area to the extent possible, including water disposal and treatment facilities, compression facilities, and gas gathering and transmission pipelines. No new major ancillary facilities are planned as part of this proposal. However, the need for new ancillary facilities would be analyzed on a case by case basis through the NEPA process if such a need is identified in the future.

6.10.1 Well Production Facilities

Well production facilities would be installed as shown on an approved APD, with secondary containment structures built to conform to applicable requirements. Facilities installed on a well pad would differ according to whether the well would be producing gas or oil.

Facilities on the gas well pads may include wellhead valves and piping, separation, dehydration, metering equipment, a combined oil and water production tank, a dehydrator condensation catchment container, air emissions control equipment, a methanol storage tank and pump, and telemetry equipment. Duplicate facilities may be installed on a pad where production from individual wells cannot be commingled due to ownership differences or regulatory requirement. Production equipment at gas wells would be powered by natural gas, although equipment requiring electricity would be powered by solar panels. All gas would be measured electronically. Telemetry equipment would be used to improve well evaluation and operational efficiency, and to minimize well visits. Studies indicate that well site visits may be reduced by as much as 50 percent after the installation of telemetry (BP 2007). Production pits would not be used. Plunger lift equipment is typically installed on gas wells to provide artificial lift when production volumes drop to a level that prevents efficient removal of liquids from the wellbore using reservoir energy alone. Other types of artificial lift may be considered during the approval of an APD or subsequent to putting a well on production, including types that may result from new technologies.

Electric motors would power pumping units for oil wells. Existing primary electric line infrastructure would supply the electricity with the exception of remote locations outside the existing electrical infrastructure. Secondary electric lines would typically be installed to each new producing oil well. These secondary lines would originate from offset 10-acre wells that have existing electric lines in place to power their pumps. Electric lines to each new producing oil well would be overhead (above-ground) or buried, depending on the specific circumstances of each location. Electric lines would average 0.25 mile in length for each oil well, potentially resulting in approximately 43 miles of new electric lines in the Project Area. Above-ground electric lines would be equipped with raptor perch avoidance devices.

6.10.2 Pipelines

Gathering lines made of steel or other durable materials would typically be installed below the surface to transport the produced gas from the new wells to the gas pipeline system operated by Williams Field Services and/or Questar Gas Management Company. Operators will also consider installing surface pipelines where necessary to reduce erosion. The gathering lines consist of pipes with a 2 3/8 to 6 5/8-inch outside diameter and, in general, would be located adjacent and parallel to well access roads where possible to minimize surface disturbance. The exact location of a gathering line would be determined at the time of the onsite inspection with the appropriate surface management agency. Additional compression capacity to support project wells is not anticipated. The potential reduction of pressure on some gathering systems may require a change in the type and size of compressors utilized to transport gas, but significant changes in horsepower requirements are not anticipated as a result of this project.

Construction operations would be confined to the ROW corridor approved in ROW applications. Pipeline construction consists of trenching, pipe stringing, bending, welding, coating, lowering pipeline sections into the trench, and backfilling. The pipeline trench would be mechanically excavated with a backhoe or trencher to a minimum depth of 48 inches. The trench would be approximately 18 to 20 inches wide. Newly constructed pipelines would be hydrostatically tested to ensure structural integrity. Drilling water may sometimes be used for hydrostatic testing. Up to 50 barrels of water may be used for hydrostatic testing for each 0.25-mile gathering line. Water from drilling operations that is not used for hydrostatic testing would be disposed of as approved by the BLM and/or the State. Pipelines may also be air tested in some cases.

Typical construction widths for a pipeline are 40 feet when not adjacent to a road, decreasing to 30 feet when adjacent to an existing or new access road. Operators would reclaim pipeline routes as specified in APD or ROW approvals. Pipeline installation would result in short-term disturbance but would not result in long-term disturbance after reclamation is complete.

6.10.3 Produced Water

Relatively small amounts of fluids, including water, are produced in the Project Area (as compared to other fields in the Pinedale Field Office area). Gas wells in the Project Area produce an average of 54 barrels of water during a month, after stimulation fluids from completion operations have been recovered. In general, use of 210 to 500-bbl tanks allows Operators to empty a water storage tank infrequently for long term well operations, greatly reducing project-related truck traffic. Produced water is not stored in a reserve pit except temporarily during testing operations. During production operations, produced water would be stored in a 210-barrel (bbl) to 500-bbl tank, depending on the amount of produced water volume from a given well, on the well pad and transported by truck to a permitted disposal site. Disposal sites are located at the GRBU #1 Tank Battery in Section 36, Township 27N, Range 113W, the BNG #3 water disposal facility in Section 28, Township 28N, Range 113W, the LaBarge Saltwater Disposal Facility, the Birch Creek Unit E Battery, or other previously approved disposal sites located in the Project Area.

All vessels containing stored fluids or other chemicals needed for production operations would be enclosed within a berm constructed with an impenetrable barrier such that any spilled fluid would be completely contained within the bermed area. The surface beneath the bermed area would be lined with clay or other synthetic material to prevent spilled fluids from migrating to the surface soils and to the subsurface.

6.10.4 Workovers

Periodically, a workover on a well may be required. A well servicing rig is generally utilized during workover operations to perform various tasks such as wellbore or surface equipment repairs, reservoir evaluation, formation evaluation by wireline, or stimulation treatments to restore or enhance well performance. Workover operations are typically performed during daylight hours and are of short duration; however, depending on the scope of the work to be performed, workover operations can sometimes take from several days to several weeks to be completed. Unless fracture stimulation is necessary, workover operations typically require from 5 to 10 workers on location at any given time. During fracture treatments, an additional 10 to 20 workers could be present on location. Additional surface disturbance is rarely necessary to conduct workover operations; however, temporary pits may occasionally be utilized to store fluids. Approval from the BLM AO would be requested should the need for new surface disturbance arise.

6.10.5 Final Reclamation

Abandonment of the well and its facilities would occur at the end of the productive life of a well in compliance with applicable federal and state regulations as well as the COAs to the APDs. The Operators would adhere to the commitments outlined in the La Barge Platform Project Reclamation Strategy (to be submitted).

Operators would cut off the casing at the base of the cellar or 3 feet below the final graded ground level, whichever is deeper, and cap the casing with a metal plate a minimum of 0.25 inch thick. The cap would be welded in place with the well name and location engraved on the top. The cap would be constructed with a weep hole and placed 3 feet below ground level or to BLM specifications.

All surface equipment would be removed from the site. The surface would be recontoured to its original appearance, to the extent possible. Topsoil that was stockpiled during construction would be distributed on the surface of the former well pad to blend the site with its natural surroundings.

All disturbed areas would then be planted with a seed mixture of native grass and plant species as specified by the appropriate surface management agency. Seed mixtures applied during rehabilitation operations would comply with the specifications of the appropriate surface management agency. Upon completion of reclamation operations, an Operator would notify the AO when the location is ready for inspection. Operators recognize that final abandonment would not be approved on federal lands until the surface reclamation work required by the approved APD or approved abandonment notice has been completed by the BLM.

6.11 SURFACE DISTURBANCE SUMMARY

Project development would result in surface disturbance. Short-term disturbance refers to initial disturbance prior to interim reclamation of the reserve pits, unused portions of the well pads and roads, and the pipeline route. Long-term disturbance refers to disturbance of the surface associated with the life of a well in addition to the running surface of access roads. The following assumptions were made to estimate surface disturbance.

Area B

- A typical new well pad in the Tip Top and Hogsback area requires an initial disturbance of approximately 10 acres to accommodate multiple wells, and long-term disturbance of approximately 2.5 acres after interim reclamation.
- Placing new wells on existing pads requires approximately 4 acres of new disturbance with long-term disturbance of 2.5 acre after interim reclamation.

Areas A, C, D, E, and F

- A typical well pad in the Project Area requires an initial disturbance of approximately 1.8 acres and long-term disturbance of approximately 1.3 acres after interim reclamation.
- A second well on a pad would require an additional 0.5 acre for drilling and completion, and 0.25 acre after interim reclamation.
- Average access road length would be 600 feet, resulting in 0.55 acre of short-term surface disturbance and 0.22 acre of long-term disturbance, corresponding to the running surface of the road.
- A Frontier horizontal well would typically require an additional 0.25 acre to accommodate a larger drilling rig.
- Initial surface disturbance for a single vertical or directional well pad to shallow formations would average approximately 1.6 acres.
- Long-term disturbance associated with each single well pad would be approximately 0.5 acre. Long-term disturbance associated with an average 2-well pad would be approximately 0.75 acre for each shared well pad. Pads with more than 2 wells would be proportionately larger.
- For the purpose of calculating surface disturbance, it is assumed that all co-located wells would be placed on Frontier vertical well pads.
- Access road construction width would be 40 feet. Reclamation would be initiated after construction, and long-term bare ground from access roads would be 20 feet in width.
- Pipeline construction width would be 30 feet, and long-term disturbance from pipelines would be zero. Pipelines would be installed parallel to access roads and pipelines are assumed to be approximately 600 feet long.

- An estimated 100% of all new vertical wellbores would be located on new well pads; approximately 54% of all new horizontal or directional wells would be located on new well pads.

Table 5 displays a summary of estimated project-related new disturbance.

Table 5. Summary of Surface Disturbance

Facility	Count/Length	Short-term Disturbance (acres)	Short-term % of Project Area	Long-term Disturbance (acres)	Long-term % of Project Area
Well Pads	463 pads	1,317	0.6%	521	0.2%
Roads	52.6 miles	255	0.1%	128	0.05%
Pipelines	52.6 miles	191	0.08%	0	0%
Total		**1,763**	**0.78%**	**649**	**0.25%**

Project implementation would result short-term surface disturbance of less than 1% of the Project Area. Long-term surface disturbance after interim reclamation would be approximately 649 acres, or 0.25%, of the Project Area.

7.0 OPERATOR-COMMITTED DESIGN FEATURES

Operators will adhere to all lease conditions, in addition to all federal and state laws, regulations, and policies. In addition, the Operators are committed to the following environmental protection measures, many of which are currently implemented in the LBP Project Area. The Operators also anticipate that additional environmental protection measures and mitigation measures may be identified during the EIS process and added to the Proposed Action at a future time, or may be discussed and agreed to during onsite inspections at the time of APD submittal.

7.1 AIR QUALITY

- Operators will comply with the Wyoming Department of Environmental Quality – Air Quality Division (WDEQ-AQD) policies and rules. Numerous air quality control measures are being evaluated for use in the Project Area, including the following:
    - Operators are evaluating the use of desiccant dehydrators in lieu of glycol dehydrators. Glycol dehydrators vent methane, VOCs, and HAPs to the atmosphere from the glycol regenerator, bleed natural gas from pneumatic control devices, and burn natural gas in the glycol reboiler. Glycol dehydration units account for almost 56% of VOCs emitted by production facilities; therefore, replacing these units could result in significant decrease in VOC emissions over time.
    - Operators are evaluating the efficacy of plumbing trace pump exhaust (VOCs) back into the burner of the separator. By doing so, Operators would reduce the pneumatic pump emissions to zero and reduce makeup gas that would normally be used to heat the burner. Pneumatic pump operations currently account for over 30% of volatile organic compound (VOC) emissions on facilities in Sublette County. This technique, therefore, has the potential to reduce VOC emissions by up to 30% from production equipment currently being used within the Project Area.

- Operators are evaluating the efficacy of plumbing tank vents into combustors to eliminate VOCs. Although this handling of vented gas will eliminate VOC emissions, it will result in a very slight increase in NO_x.
- Operators will evaluate removing idle, unused, or unnecessary equipment after determining what the benefit may be in terms of reduced emissions.
- Operators are evaluating the feasibility of reducing or eliminating NO_x on compressor engines through electrification or replacement of current engines with lower-emissions engines.
- Operators are working with drilling contractors to improve emissions on drill rigs. This process is ongoing. Operators anticipate that all rigs in the area would be Tier II or cleaner by the time of project implementation.

- Necessary air permits to construct, test, and operate facilities will be obtained from the WDEQ-AQD. All internal combustion equipment will be kept in good working order. BACT will be implemented as required by WDEQ-AQD.
- Operators will use either flaring or "green completions" to eliminate venting natural gas, thereby significantly reducing VOC emissions.

7.2 Cultural and Paleontological Resources

- Operators will conduct site-specific surveys or block surveys for cultural resources and paleontological resources, as applicable. Operators will take appropriate action to avoid or mitigate impacts to these resources, if they are identified, in compliance with all applicable rules and regulations.

7.3 Surface Disturbance and Transportation Planning

- Concurrent with the development of the EIS, the Operators will develop a transportation plan to document methodology for minimizing surface disturbance and associated impacts to soils and water, and will submit the plan to the BLM during development of the EIS. The transportation plan will include provisions for rehabilitation of operator-controlled unused and mutually agreed to unnecessary roads, which will be identified during plan development, dust suppression, and traffic reduction.
- The Operators will provide the BLM with a geospatial database of all newly constructed access roads and well pads at least annually. The geospatial database will include the attributes required by Onshore Oil and Gas Order #1.
- The Operators will construct new roads and well sites to standards described in the BLM Gold Book (BLM and USFS, 2007) and in BLM Manual 9113 – Roads.
- The Operators will design and construct all new roads to a safe and appropriate standard, "no higher than necessary" to accommodate their intended use.
- The Operators will surface access roads with gravel or other appropriate material, unless sufficient natural gravel exists, as determined by the AO on a site-specific basis.
- The Operators will provide sufficient tank capacity on the pads of producing wells to minimize collection and transport of produced water to its disposal site.

- Operators will perform interim reclamation of well locations and access roads soon after all sequentially drilled wells were put into production. Reclamation timeframes would comply with Onshore Order #1.

7.4 SOILS AND SEDIMENTATION

- Operators will consider installing surface pipelines where necessary to reduce erosion, on a site-specific basis to be determined at the time of the on-site inspection during permitting.
- Operators will implement best management practices as described in their site-specific Storm Water Pollution Prevention Plans and will consult with the AO during the time of on-site inspection during permitting to determine procedures/construction techniques to prevent bank erosion from construction and use, erosion, and sedimentation.
- Operators will utilize best management practices and materials such as rip rap, where practicable, to prevent erosion and head cutting from culverts and other drainages.
- Operators will employ site-specific measures to prevent sedimentation into the Green River and its tributaries.
- Operators will not construct using frozen or saturated soils or during periods when watershed damage is likely to occur.

7.5 WATER RESOURCES

- Operators will maintain a 500-foot offset to riparian areas and surface water, or, if not viable, will consult with the AO to develop site-specific mitigation if no other practical option exists.
- Operators will avoid new construction within the 100-year floodplain of the Green River. No permanent structures will be constructed within its boundary unless it can be demonstrated on a case-by-case basis that there is no physically practical alternative.
- Operators will line all reserve pits and pad them as necessary to prevent tearing or puncturing of the liner and fluid migration to the subsurface.
- Operators will construct impenetrable containment berms completely around production facilities designed to store fluids (i.e., production tanks, produced water tanks, methanol tanks). The pad floor beneath the tanks would be constructed with a clay layer or with synthetic material to prevent fluid migration to the subsurface.

7.6 VISUAL RESOURCES

- Operators will paint all new facilities a color that best allows the facility to blend with the background, such as Shale Green Munsell Color Code 5Y 4/2, which typically is consistent with a vegetated background, or the color specified by the AO.
- Operators will perform final reclamation recontouring of all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography.

7.7 VEGETATION

- Operators will utilize fencing, as appropriate; to protect reclaimed areas from grazing until revegetation can be established.
- Operators will control weeds on disturbed areas within the exterior limits of the access roads, well pads, and pipeline routes in accordance with approval from the AO.

7.8 LIVESTOCK GRAZING

- Operators will repair or remedy any damage to the function of range improvements (e.g. fence damage, cattle guard cleaning, livestock loss) from operations as soon as possible.
- Operators will continue to conduct operations so as to retain access to cattle movement corridors (trails) so that livestock can be managed.
- All pads will be completely fenced until reclamation is successful. All new fences will adhere to standards provided by BLM Handbook H-1742-1. Fences will be maintained appropriately.

7.9 WILDLIFE AND OTHER

- During drilling and completion, all garbage and non-flammable waste materials will be contained within a self-contained, portable dumpster or trash cage. As needed, the waste will be transported to an approved disposal facility.
- Operators may use remote telemetry to monitor wells throughout the field to reduce truck travel. Telemetry equipment would be used to improve well evaluation and operational efficiency, and to minimize well visits. This measure will reduce the amount of operational traffic in the field during production to minimize the long-term impacts to wildlife.
- Operators will provide sufficient tank capacity on the pads of producing wells to minimize, as feasible, collection and transport of produced water to disposal sites. This measure will reduce the amount of operational traffic in the field during production to minimize the long-term impacts to wildlife.
- Anti-perch devices will be installed on all overhead power lines to reduce perches for predators, thereby minimizing predation of sage-grouse and other wildlife.

8.0 OPERATOR COMMITTED BEST MANAGEMENT PRACTICES

As detailed in this Project Description, the Operators will employ the following Best Management Practices (BMPs) on a site-specific basis on their facilities to reduce, prevent, or avoid adverse environmental impacts. These BMPs were identified in Appendix 5 of the Pinedale FEIS/PRMP (Fluid Mineral Best Management Practices). Many of these BMPs are currently implemented in the Project Area. This list is not all inclusive and may be modified over time as conditions change and new practices are identified. The Operators anticipate that appropriate application of BMPs will be identified by the BLM during the EIS, and subsequent APD, processes.

8.1 BIG GAME CRUCIAL WINTER RANGE AND OTHER WILDLIFE HABITAT

- Horizontal drilling of gas wells.
- Drilling of multiple wells from a single pad.
- Closed drilling systems where the water table or topographic considerations interfere with the reserve pit, to be determined at the time of permitting.
- Flareless or “green” completions where feasible.
- Remote well monitoring throughout the field.
- Transportation planning throughout the field to reduce road density and minimize traffic-related impacts.
- Cluster development will be evaluated on-lease and where winter exceptions are granted.
- Habitat enhancement projects may be identified and implemented.

- Using BLM standard wildlife fences where fencing is installed.

8.2 Sage Grouse Habitat

In addition to the BMPs in Section 8.1, Operators will employ the following:

- Installation of raptor anti-perch devices on all overhead power lines.
- Adhering to stipulations and conditions of approval regarding sage-grouse, unless exceptions granted.

8.3 VRM Class II and III Areas

- Repetition of elements of form, line, color, and texture to blend facilities with the surrounding landscape.
- Painting all new facilities a color that best allows the facility to blend with the background, typically a vegetated background.
- Final reclamation recontouring of all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography.
- Screening of facilities from view if deemed appropriate and necessary.
- Reclamation of all unused well pads within one year.
- Following the contours of the land to reduce unnecessary disturbance.
- Recontour and revegetation of disturbances to blend with the surrounding landscape.
- Reclamation of unused or mutually agreeable unnecessary roads to the original contour.

8.4 Air Quality

- Use water and dust suppressant on roads, as agreed to in a Transportation Plan (to be developed).
- Post speed limits on wellsite access roads, as appropriate.
- Implement transportation planning throughout field.

8.5 Fluid Mineral Construction, Operation, and Reclamation

- Horizontal drilling of gas wells.
- Drilling multiple wells from a single pad.
- Closed drilling systems where the water table or topographic considerations interfere with the reserve pit.
- Remote well monitoring throughout the field.
- Transportation planning throughout the field to reduce road density and minimize traffic-related impacts.
- Design and construction of all new roads to a safe and appropriate standard, “no higher than necessary” to accommodate their intended use.
- Reuse of existing roads and well pads where feasible.
- Interim reclamation of well locations and access roads soon after the well is put into production.
- Storage of chemicals within secondary containment in case of a spill.
- Onsite bioremediation of oil field wastes and spills.
- Removal of trash, junk, waste, and materials not in current use on facilities controlled by the Operators participating in this EIS.

9.0 REFERENCES

British Petroleum (BP). 2007. Draft Moxa Arch Field Automation Traffic Data Analysis. Denver, CO.

Bureau of Land Management (BLM). 2009. Pinedale Resource Management Plan, EIS, and ROD. Available: http://www.blm.gov/rmp/WY/application/index.cfm?rmpid=29

Bureau of Land Management. 1997. Record of Decision and Green River Resource Management Plan. Green River Resource Area, Rock Springs District Office. October.

Bureau of Land Management (BLM). 1991. Decision Record and Approved Coordinated Activity Plan for the Big Piney/LaBarge Area.

Environ. 2006. WRAP Area Source Emissions Inventory Projections and Control Strategy Evaluation Phase II: Final Report. Prepared for the Western Governor's Association.

Environmental Protection Agency (EPA). 2006. Summary of Potential Retrofit Technologies. Available: www.epa.gov/otaq/retrofit/retropotentialtech.htm

Public Law 109-58. 2005. Energy Policy Act of 2005. Section 390, 119 STAT. 594. 42 USC 15801. August 8, 2005.

Upper Green River Sage-Grouse Working Group. 2007. Upper Green River Sage-Grouse Conservation Plan. May 24, 2007.

Appendix C

Comprehensive List of Scoping Comments

2009 and 2010 Public Scoping Comments

Category	Commenter	Comment Text
Air Quality		
	Bruce Pendery, Wyoming Outdoor Council	The status of air quality in the Sublette County area presents substantial obstacles to the approval of this project. We will review some of these concerns here. We feel there is no need to review the current status of air quality in this area – the problems with ozone pollution and impacts to visibility in Class I areas are well known to the BLM.
	Bruce Pendery, Wyoming Outdoor Council	We suspect that the BLM will rely heavily on the Wyoming department of Environmental Quality's (DEQ) interim policy regarding permitting of sources of air pollution in Sublette County, which is attached as Exhibit 1. Under this policy, "offsets" of pollution from new sources are used as a way to reduce the level of pollution that has created the ozone problems in this area (nitrogen oxide, NOx emissions are reduced at a ratio of 1.1:1 and volatile organic compound, VOC, emissions are reduced at a ratio of 1.5:1). We feel that reliance on this "policy" as a means to allow further permitting of oil and gas wells would be misplaced. As the DEQ has emphasized in its recent permitting decisions in this area, "[t]he interim Policy is not a rule it is guidance." Exhibit 2. And, "[t]he Interim Policy also clearly states that it is not a regulation . . . ." *Id.* The BLM cannot permit oil and gas wells to be developed in this nonattainment area based on just DEQ "guidance," it can only rely on this means to reduce pollution if it is a federally enforceable limit that has been made part of the State Implementation Plan (SIP). Absent this level of certainty, there is no guarantee whether the DEQ will require these pollution reductions, It may, but it may not, and thus the BLM cannot rely on this weak and uncertain scheme to serve as a basis to allow further oil and gas development in this area. Before approving the 1,000 wells possibly planned for this area, the BLM either must insist that the DEQ transform its current policy into a rule or must otherwise receive assurance the offsets are a legally enforceable requirement.
	Bruce Pendery, Wyoming Outdoor Council	As indicated, it is very likely that Sublette County and portions of Sweetwater and Lincoln Counties will be designated in nonattainment with the ozone NAAQS by the EPA within a year or less. Given this major change in the status of air quality legal compliance, we do not believe the BLM should move to approve the LaBarge Platform Project until a final decision is made as to the attainment status in this area, and any resulting changes in regulations and policy that will follow are made.
	Bruce Pendery, Wyoming Outdoor Council	If this area is designated in nonattainment – a virtual certainty – the State will be required to revise its SIP to reflect the new legal status. The revised SIP could put in place many requirements that are not currently reflected in the legal framework that both BLM and the DEQ are operating under. Thus, it seems inappropriate to us to move toward approving this project until the air quality law in this area is more clearly settled.
	Bruce Pendery, Wyoming Outdoor Council	One important area of change will likely be related to new source review (NSR) requirements. In Wyoming, there will be NSR requirements for both major and minor sources of air pollution. For major sources of air pollution there will be two areas of NSR review, compliance with the Clean Air Act's prevention of significant deterioration (PSD) requirements and nonattainment area NSR. This second level of NSR will likely require the imposition of pollution controls on major sources that are more stringent than anything currently in place – namely requirements that the Lowest Achievable Emissions Rate, or LAER, be achieved. Under the Clean Air Act different levels of nonattainment are recognized relative to the ozone NAAQS ;(marginal, moderate, serious, severe, and extreme) and indications are that Sublette County will be found to be in the marginal or moderate category. If this is the case, any source of emissions that emits more than 100 tons per year of an air pollutant would be a major source subject to LAER. At a minimum, compressor stations will likely be deemed to be major sources subject to these enhanced requirements. Furthermore, we ask the BLM to also consider whether drill rigs are major sources that will be subject to LAER.(2) *[footnote]* (2)Generally drill rigs have been treated as mobile sources of emissions and thus not subject to state regulation, but this seems to be changing. As we write, the DEQ is in the process of putting into place permits for emissions for drill rigs in the Pinedale Anticline and Jonah Fields. The State's position is that upon permitting the requirements of the permit will become fully enforceable permit limits. Thus, it seems that drill rigs in the LaBarge Platform could well come under State regulation and be treated as major sources subject to LAER. Moreover signatories to this letter have a request pending before the DEQ that it regulate drill rig emissions. A memorandum in support of that request has been presented of the DEQ and is attached hereto as Exhibit 3. We ask the BLM to fully consider this memorandum in determining whether drill rigs in the LaBarge Platform Project area may be subject to LAER.

Category	Commenter	Comment Text
Air Quality		
	Bruce Pendery, Wyoming Outdoor Council	Under PSD NSR the BLM will have to ensure that both Class I and Class II pollution increments are not violated. This will require that the Best Available Control Technology (BACT) be installed on major sources of emissions. We are particularly concerned that visibility in the Bridger Wilderness not be further impaired by this project and the BLM should ensure this is the case. Again, both compressor stations and drill rigs operating in this project area, under authority of BLM's decision in this matter, may be subject to these PSD BACT requirements. The BLM should put into place a requirement that there will be zero days of visibility impairment in the Bridger Wilderness Class I area, just as it did in the Pinedale Anticline Supplemental Environmental Impact Statement Record of Decision. We feel it is an open question as to whether this project can be approved while still assuring zero days of visibility impairment in the Class I area, and the BLM should not approve this project if non-impairment cannot be assured. The project proponents should be required to engage in annual modeling showing that their development is not impairing visibility in the Class I area.
	Bruce Pendery, Wyoming Outdoor Council	Moreover, the DEQ's 2005 report entitled Summary Report *Southwest Wyoming NO2 Increment Consumption Modeling: Results for Sublette County* showed that nearly half of the Class II increment for nitrogen dioxide (NO2) was consumed in some parts of Sublette County. Emissions from the LaBarge Platform Project can only lead to further consumption of the permissible increment, and the BLM should fully consider this issue before permitting this project.
	Bruce Pendery, Wyoming Outdoor Council	Finally, as noted above, the State of Wyoming also requires NSR for minor sources. In particular it has guidelines for BACT that are applicable to oil and gas production facilities, including special requirements for the Pinedale Anticline and Jonah fields. But the DEQ is in the process of revising its BACT guidelines. *See* http://deq.state.wy.us/aqd/oilgas.asp. Under the new guidelines the DEQ will designate a number of other "concentrated development areas" where the more stringent Pinedale Anticline/Jonah requirements will apply. The DEQ's expanded concentrated development areas include the LaBarge Platform Project area. The BLM should ensure that these more stringent requirements are applied in this area and incorporate them in its analysis and decision regarding this project.
	Bruce Pendery, Wyoming Outdoor Council	The State has recommended this area for nonattainment status with the ozone National Ambient Air Quality Standard (NAAQS), http://deq.state.wy.us/Sublettecountyozone.htm and the EPA very likely will designate it in nonattainment by next March, as required by rule. In addition, in the State's analysis supporting the nonattainment request it states unequivocally that essentially the sole reason that this area is in nonattainment is due to the oil and gas development occurring in the area. As noted in the State's technical report, "[t]he analysis conclusively shows that elevated ozone at the Boulder monitor is primarily due to local emissions from oil and gas (O&G) development activities: drilling, production, storage, transport, and treating." *Id.* at viii. Thus, Sublette County is a nonattainment area due almost entirely to the prior oil and gas development BLM has permitted. BLM cannot continue to exacerbate that problem by permitting more oil and gas development based on a DEQ policy that may or may not be enforced, and which therefore may or may not lead to the pollution reductions that are needed to bring this area back into attainment. The BLM cannot permit actions that may keep this area in nonattainment with the ozone NAAQS or which cause degradation of visibility nearby Class I areas. "Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result in the discharge of air pollutants, and each officer, agent, or employee thereof, shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of air pollution in the same manner, and to the same extent as any nongovernmental entity." 42 U.S.C. § 7418(a). And there is no doubt that complying with, and not contributing to the violation of, a NAAQS is a requirement regarding the control and abatement of air pollution. Thus, the BLM cannot take any action that might lead to a violation of the zone NAAQS or which perpetuates violation of the ozone NAAQS. *See also* 43 C.F.R. § 2920.7(b)(3) (all land use authorizations that BLM approves shall contain terms and conditions that "[r]equire compliance with air and water quality standards…")(1) *[footnote]* (1)A number of other applicable regulatory requirements will be cited below in the discussion of BLM's obligation to minimize impacts.

Category	Commenter	Comment Text
Air Quality		
	Bruce Pendery, Wyoming Outdoor Council	We also remain concerned that visibility in the Bridger Wilderness Class I Area may not be adequately protected. Under the record of decision for the Pinedale Anticline Oil and Gas Exploration and Development Project the BLM has set three milestones for ensuring the Class I area reaches the Clean Air Act goal of having no impairment of visibility due to manmade activities. In particular, milestone number three provides that there will be zero days of visibility impairment by March, 2015. *See* Record of Decision Final Supplemental Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project at 25. It is our view this same plan and timeline should be applied to the LaBarge Platform project, and the record of decision for this project should so provide. It would make no sense to have one NEPA document in the Pinedale Field Office providing for zero days of visibility impairment on a specified timeline while another NEPA document does not.
	Bruce Pendery, Wyoming Outdoor Council	Furthermore, recent regulatory developments emphasize the significance of these issues and the need for close and careful NEPA analysis by the BLM. The EPA has announced that it intends to revise the primary NAAQS for ozone, setting it at a level of 0.060 to 0.070 parts per million (ppm). 75 Fed. Reg. 2938 (Jan. 19, 2010). *See also* 75 Fed. Reg. 2936 (Jan. 19, 2010) (presenting the EPA's revised plans for making ozone nonattainment designations). The current primary NAAQS for ozone is 0.075 ppm. The EPA will finalize this rule revision by August 31, 2010, long before the LaBarge Platform Project receives final approval by the BLM. Thus, this area, which already has significant problems with ozone pollution, will likely be facing even greater obligations to control the precursors to ozone. The BLM must fully consider the implications of this new, more stringent primary NAAQS for ozone in its NEPA analysis for the LaBarge Platform Project, and make needed, mandatory and binding decisions in the record of decision to comply with the new NAAQS. *Staying* in nonattainment with a NAAQS, or not making things *worse,* is not permissible under the Clean Air Act; BLM must make decisions that help *return* this area to *compliance* with the requirements established by the Act. That is what the law of NAAQS nonattainment requires under the Clean Air Act. Additionally, not only is EPA going to make the primary standard for ozone more stringent, it is also going to establish a secondary standard for ozone that is distinctly different from the primary standard in order to protect vegetation in Class I areas like the Bridger Wilderness Area. 75 Fed. Reg. 2938 (Jan. 19, 2010). EPA will set the secondary Standard for ozone as a cumulative, seasonal standard in the range of 5 to 15 ppm-hours. Again, this new regulation will be in place long before the LaBarge Platform Project receives final approval, so BLM must fully consider this new regulatory framework in its NEPA analysis and make provision for compliance with it in the record of decision. This standard will be distinctly different than the primary standard- it will be based on growing season-long average ozone levels rather than 8·hour peak ozone levels like the primary standard is- and its implications will be in regard to *summer* ozone levels rather than the *winter* ozone issues that have plagued Sublette County. Thus, BLM likely has much careful analysis to do because it has no prior experience with this distinctly different secondary standard that implicates summer rather than winter ozone conditions. A primary NAAQS is established so as to protect the public health while a secondary standard is established so as to protect the public welfare, and the NEPA analysis for the LaBarge Platform project should recognize this important difference and make provision for compliance with both standards.

Category	Commenter	Comment Text
Air Quality		
	Bruce Pendery, Wyoming Outdoor Council	In the September scoping comments we primarily focused on issues related to air quality. The increased level of disturbance apparently being contemplated heightens those concerns and further emphasizes a number of points we previously made. Quite simply' there is a real question as to whether BLM can permit this project given the nonattainment status of this area relative to the ozone primary National Ambient Air Quality Standard (NAAQS}--a status that is all but assured to be finalized by EPA, especially since the State has requested it. In particular, increasing the number of drill rigs increases the concerns regarding the impacts of this project on air pollution generally and ozone in particular. BLM's NEPA analysis must fully consider whether this project can be permitted in a manner that will permit compliance with the NAAQS for ozone, as well as the national goal established by the Clean Air Act of preventing any impairment of visibility in Class I areas. BLM is legally required to place terms and conditions on any land use authorization that shall, "Require compliance with air and water quality standards established pursuant to applicable Federal or State law." 43 C.F.R . § 2920.7(b)(3). Moreover, BLM is under an obligation to comply with Clean Air Act requirements (which a NAAQS certainly is) to the same extent as any private party would be. 42 U.S.C. § 7418. Our concern that the offsets policy of the Wyoming Department of Environmental Quality is nothing more than "guidance" and not a regulatory requirement remains and the significance of this issue, which we fully explained in our September comments, is heightened given the expanded development outlined in the Differences document. As we said In September, BLM cannot rely on "guidance" to meet its legal obligations under the Clean Air Act and BLM regulations; only duly adopted *regulatory* requirements can serve as a foundation for meeting BLM's legal obligation to comply with the Clean Air Act. Any provisions that BLM relies on to achieve compliance with Clean Air Act requirements must be based on "federally enforceable" limits; the current DEQ omissions offsets "guidance" does not meet that standard. Increasing the number of drill rigs by threefold only emphasizes the significance and relevance of this issue, as does increasing the number of truck trips and the number of wells that will be drilled.
	Cathy Purves, Trout Unlimited	Based on all the ongoing issues with air quality in western Wyoming, TU feels that approving this project without conducting an air quality analysis and monitoring review would be improper. We ask that the BLM halt permitting this project until an assessment of this area can be completed.
	Cathy Purves, Trout Unlimited	Sublette County has been challenged with the problems of ozone pollution and the impacts to visibility in Class I areas directly attributed to energy development. Other counties are also experiencing repercussions from these impacts. The BLM must request that the Department of Environmental Quality (DEQ) transform its interim air pollution policy on offset amounts prior to permitting this project. The likelihood that Sublette County will be designated a nonattainment area in 2010 remains high. With the proposed increase in drilling activity, this presents additional concerns for TU. We feel that the BLM will violate NEPA if it permits actions that continue to pollute and degrade the human and nonhuman environment. Plus, should BLM permit this project without requiring changes to policy or regulations, it would be in violation of the National Ambient Air Quality Standard (NAAQS) for areas nearby or in Class I designations.
	Cathy Purves, Trout Unlimited	The Pinedale Anticline Project Area Record of Decision (ROD, page 25) requires that within 12 months after signing the ROD, modeled project related visibility impacts will be no greater than 40 days of visibility impairment over 1 dv at the Bridger Wilderness Area. September 12, 2009 was the deadline for this attainment and we are awaiting DEQ's analysis. This same type of attainment commitment must be made for the proponents in this project. It is likely that EPA may make additional new ozone attainment standards based on a lawsuit currently being decided on a national basis on September 16, 2009.
	Cathy Purves, Trout Unlimited	Increased air sampling monitors and stations should be established based on the increase in other adjacent oil and gas development projects (including Cimarex and any forthcoming projects in the Bridger Teton National Forest).
	Cathy Purves, Trout Unlimited	Surveys for special status species will be conducted on federal lands prior to any approval of project development or any project activity approval, as described in the Final RMP ROD (Section 2.3.16, pages 2-45 through 2-54). Project pre-construction activities must include the submission by operators of baseline vegetation and habitat condition inventories of the area, aquatic and water quality samples of the area (particularly since this area has been an active drilling site since the 1920's), and an air quality monitoring plan as defined by BLM and DEQ. The results of these inventories must be submitted to the BLM in order to assist the operators in their construction plans and development activities.
	Cathy Purves, Trout Unlimited	Use of solar panels should be required. This dated proposal suggests that solar panels may not be feasible, yet panels are becoming standard equipment in gas fields across the Rockies and are being actively used in the Pinedale resource area. TU requests that the BLM require the use of solar panels in an effort to minimize air emissions and comply with EPA and DEQ air quality regulations.

Category	Commenter	Comment Text
Air Quality		
	Cathy Purves, Trout Unlimited	Please incorporate two additional Memorandum guidance decisions that have just been released. They include "*Establishing and Applying Categorical Exclusions under the National Environmental Policy Act"* and *"Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions".* Both are dated February 18, 2010. In light of the fact that some of the Operators in this proposal are already asking for exclusions and exceptions, this material should be relevant.
	Cathy Purves, Trout Unlimited	Air quality impacts from this project development must be considered.
	Cathy Purves, Trout Unlimited	This entire discussion is based on old data and reflects the 2008 Project Description. Please update this section, including the Air Quality discussion (which lacks any specifics or results of their multi-phased evaluations on desiccant dehydrators and the efficacy of plumbing trace pump exhaust back into the burner of the separator to minimize VOCs).
	Cathy Purves, Trout Unlimited	With the new EPA air emission standards reduction and the likely potential for Sublette County to be classified in a nonattainment category, the operators must provide a more substantive Transportation Plan that reduces truck traffic by implementing a liquids gathering system (LGS) for all produced waters and waste. This was successfully completed in the Pinedale Anticline by operators as described in a report prepared by Shell, Inc. and submitted to the BLM in February 2010 (*"Deferral of Liquids Gathering System for DA-5"*, February 9, 2010 letter to Brian Davis, Acting Pinedale BLM Field Manager). An estimated 200,000 miles per year of truck traffic (resulting in 200 millions of miles saved post 2008) was reduced due to the implementation of an LGS.
	Claire Moseley, Public Land Advocacy	PLA reminds BLM that there are limits on its jurisdiction with respect to air quality management. In Wyoming, jurisdiction for this resource is held exclusively by EPA, which has delegated its authority to the Wyoming Department of Environmental Quality. As such, BLM does not have authority to establish emission caps or to manage air quality and no such requirements should be included in the project EIS.
	Cooperating Agency Meeting with Lincoln County	Concerned about dust control in the Town of LaBarge. This is also a non-attainment area for ozone.
	Cooperating Agency Meeting with Lincoln County	There is air monitoring being conducted by the Counties and new air monitoring equipment being purchased and run by the counties (1 new in Lincoln Co; 2 new in Sublette Co; and 1 new in Sweetwater Co.). Costs are shared between counties for these monitors. There is also a program run by WYDOT that may assist with purchase of air monitors for local communities. The LaBarge monitor has been in place for a year and a half and is located at the fire station in town. There is also a monitor in the Town of Farson which is located in town.
	Cooperating Agency Meeting with Sublette County and Others	Non-attainment issue is of concern because of the economic impact. It is important to monitor cumulative impacts as these have implications for the County. WDEQ air quality division, the District, BLM, and the Operators should sit down and talk about this issue.
	Cooperating Agency Meeting with Towns of Big Piney and Marbleton	Have you been measuring air quality? What types of air quality monitoring is going on in this area? There is some monitoring occurring near LaBarge, and some ozone monitoring near Daniel. Air quality enforcement comes under the jurisdiction of the Wyoming DEQ. BLM offered to let the group know more specifically what monitoring exists in the region.

Category	Commenter	Comment Text
Air Quality		
	Eric Dille, EOG Resources	The LBP Project EIS Must Recognize that the State of Wyoming Has Authority to Regulate Impacts to Air Quality. In the LBP Project EIS, BLM must expressly recognize that the State of Wyoming, and not the BLM, has authority for regulating air quality within the LBP Project Area. The complex regulatory scheme established by the Clean Air Act (CAA) provides the State of Wyoming with the authority to regulate Wyoming's air resources. BLM may not infringe upon the State's authority by attempting to regulate air quality or air emissions in the LBP Project EIS. The CAA clearly places authority over Wyoming's air resources in the hands of the State. Congress enacted the CAA in 1970, establishing a joint state and federal program to address the nation's air pollution. *See* 42 U.S.C. §§ 7401-7671q. Congress vests each State with the primary responsibility for assuring air quality within the entire geographic area comprising the State, including federal lands. 42 U.S.C. § 7407(a). This includes the regulation of air quality for all of the various programs of the CAA, including the National Ambient Air Quality Standards (NAAQS), the Prevention of Significant Deterioration (PSD) program, and the visibility or Regional Haze (RI-I) program. EPA has promulgated the NAAQS for the six identified criteria pollutants-carbon monoxide (CO), sulfur dioxide (S02), nitrogen oxides (Nox), ozone (03), lead, and particulate matter (PM2,5 and PM10)-to protect public health, allowing for an adequate margin of safety that takes into account sensitive populations. See 42 U.S.C. § 7409(b). EPA reevaluates the NAAQS every five years to update the science and ensure that the standard continues to adequately protect public health. See id. § 7409(d). The State of Wyoming, through the Wyoming Department of Environmental Quality (WDEQ) Air Quality Division, has authority to achieve and maintain state and federal air quality standards in Wyoming. *See* 42 U.S.C. §§ 7401 ¬7671q; 40 C.F.R. pts. 50 -99 (2009); 40 C.F.R. § 52.2620 (Wyoming's State Implementation Plan); Wyo. STAT. ANN. §§ 35-11-201 to 214 (LexisNexis 2008); Wyo. Air Quality Stds. & Regs. (WAQSR) Chs. 1 -14. Wyoming implements its responsibility by submitting a state implementation plan (SIP) to the EPA specifying what emission reductions and other control measures it will use to attain the NAAQS. Once EPA approves the SIP, it is codified and enforceable as federal law. The IBLA has recognized Wyoming's authority to enforce the NAAQS within the state, including federal lands: > In Wyoming, ensuring compliance with Federal and State air quality standards, setting maximum allowable limits (NAAQS and WAAQS) for six criteria pollutants CO (carbon monoxide), S02 (sulfur dioxide), N02, ozone and particulate matter (PM10 and PM2.5), and setting maximum allowable increases (PSD Increments) above legal baseline concentrations for three of these pollutants (S02, N02, and PM1O) in Class I and Class II areas is the responsibility of WDEQ, subject to EPA oversight. *Wyoming Outdoor Council, et at.*. 176 IBLA 15, 26 (2008). Congress added the PSD program to the CAA in 1977 to ensure that economic growth would not adversely impact areas with pristine air. The PSD program applies throughout Wyoming because the state has attained the NAAQS. As part of the PSD program, Congress has required EPA to set increments for Class I, II, and III areas, new major facilities to implement Best Available Control Technology (BACT), and new major facilities to demonstrate that they will not cause or contribute to a violation of the increments. *See* 42 U.S.C. §§ 7473, 7475, 7479. The PSD program as a whole protects the increment goals. *Id*. Congress promulgated the national visibility goal to prevent future, and remedy existing, impairment of visibility in mandatory Class I federal areas. See 42 U.S.C. § 7491. To accomplish this goal, Congress set forth a program that addresses impairment from existing and proposed major stationary sources, and a program to address RH-haze that often results from the transportation of pollutants hundreds of miles from the source. *Id*. The State of Wyoming has implemented the visibility program addressing existing and proposed major stationary sources, and is currently developing its RH SIP to further improve visibility in Wyoming. These programs function together to protect Wyoming's air quality. BLM has a minor role in the CAA's complex scheme. Under the CAA, a federal land manager's authority is strictly limited to considering whether a "proposed major emitting facility will have an adverse impact" on visibility within designated Class I areas. 42 U.S.C. § 7475(d)(2)(B). Although federal land managers with jurisdiction over Class I areas may participate in the development of regional haze SIPs, the BLM has no such jurisdiction in Wyoming. 42 U.S.C. § 7491. Accordingly, the BLM has no authority over air quality, and cannot impose emissions restrictions, either directly or indirectly, on natural gas operations in Wyoming. The Wyoming Department of Environmental Quality -Air Quality Division (WDEQ-AQD) Interim Policy on demonstration of compliance with WAQSR Chapter 6, Section 2(c)(ii) for sources in Sublette County was issued July 21, 2008. EOG is obligated to comply with that interim policy or rules in effect subsequent to the interim policy. The July 2008 interim policy includes equivalent offsets for emission reductions. Specific emissions reductions techniques to be used will be evaluated over the life of the project. New technologies may be implemented after their effectiveness is tested and determined. EOG is evaluating numerous technologies, as detailed in EOGs "Final Project Description for the LaBarge Platform Exploration and Development Project EIS, submitted to the Pinedale BLM on

Category	Commenter	Comment Text
Air Quality		
		October 3, 2008. In addition, all necessary air permits to construct, test, and operate facilities will be obtained from the WDEQ¬AQD. All internal combustion equipment will be kept in good working order. Best Available Control Technologies (BACT) will be implemented as required by WDEQ-AQD. Because BLM lacks authority under the CAA over air quality. BLM may not attempt to regulate air emissions in the LBP Project Area. Moreover, in the LBP Project EIS, BLM should expressly acknowledge that, as a matter of federal law, the State of Wyoming has the authority to directly regulate air quality in the LBP Project Area. Furthermore, BLM must acknowledge that it defers the regulation of emissions to the State's authority.
	Erik Molvar, Biodiversity Conservation Alliance	BLM should do complete analysis of direct and cumulative effects of the project to air quality in the project area and surrounding region. This analysis should incorporate all air quality monitoring and ongoing scientific experiments that are occurring in the Upper Green River Valley, including those underway in the Pinedale Anticline and Jonah Fields and the neighboring Bridger-Teton National Forest. Ozone pollution is currently exceeding Clean Air Act standards in the developed fields to the east. The impact of additional ozone pollution and ozone precursors from the Labarge Field as a result of this project needs to be evaluated. We are concerned that the current Labarge Field may be a large source of methane leaks, volatile organic compounds (VOCs), and other pollutants due to the advanced age (and potentially poor repair) of oil and gas infrastructure there. Mitigation measures for direct and cumulative impacts to air quality should include a complete evaluation of pollutant leaks in the current Labarge Field and fixing present sources of pollutants so that overall airborne pollution is minimized. We are concerned about visibility impairment due to additional pollutants in the Wyoming Range, the Wilderness Areas of the Wind River Range, and also in Jackson Hole and the National Parks that border it. Mitigation measures that minimize these pollutants should be required. The greenhouse gas emissions from this project, both direct and cumulative, need to be analyzed fully and mitigation measures will be needed to minimize these emissions. Such mitigation measures should include at minimum piping of condensate in order to minimize VOC emissions at condensate tanks.
	Jonathan Ratner, Western Watersheds Project Wyoming Office	1,000 new wells in a non-attainment zone, now that is a very bright idea. Pretty basic here. How can the BLM allow continued expansion when the amount already permitted has created a toxic sewer of our air and violates the CAA?
	Joy Bannon, Wyoming Wildlife Federation	Air quality is important for tourism and recreation. Air, if clean, feels good to breathe, allows one to enjoy the scenic vistas without haze, and enables people to see longer distances. Dirty air impacts children with asthma and adults with any respiratory problems. Visitors come to Bridger-Teton National Forest (which is adjacent to the LaBarge Infill Project), Grand Teton and Yellowstone National Parks for their beauty and undisturbed landscape. Air quality is part of that experience.
	Joy Bannon, Wyoming Wildlife Federation	The BLM, under the Environmental Protection Agency, needs to conduct a comprehensive air quality model and analysis. WWF supports this analysis and we see the benefit of including local and regional impacts to air quality. A landscape scale approach should encompass the Green River Basin, Yellowstone National Park and Grand Teton National Park. Comprehensive and current baseline data for air quality is necessary to fully understand the accumulative effects especially with the massive increase of development within the last six years. This work should be accomplished using the most current scientific methodology under state and federal assessment protocol.
	Joy Bannon, Wyoming Wildlife Federation	Ambient air monitoring programs should be utilized and documented with the goal of exceeding the stated mitigation goals. An analysis should be provided with particular focus on visibility, regional haze, acid deposition, and potential increases in acidification to acid sensitive lakes.
	Joy Bannon, Wyoming Wildlife Federation	If the BLM finds that this comprehensive and current air quality data is lacking while the Draft EIS is being written for this project, the writing should be placed on hold until such data is complete.
	Joy Bannon, Wyoming Wildlife Federation	The master development plan should include emission pollutants that will occur with every level of full field development and production. For example, the following emissions should be addressed: Nitrous Oxide (NOx), Sulfur Dioxide (SO2), fine particulate matter (PM10, PM2.5, Ozone (O3), fugitive dust and carbon monoxide (CO). Comply with the Regional Haze Rule (RHR).

Category	Commenter	Comment Text
Air Quality		
	Joy Bannon, Wyoming Wildlife Federation	The BLM should identify all air quality impacts and mitigation criteria on the onset for the project area, even if the BLM isn't able to, under jurisdiction, to implement them. All preventions and remedies that the BLM can implement should be identified, such as electrification of the well field, paced development, voluntary emission offsets from existing sources and energy conservation and efficiency measures. Performance goals and objectives can be established to improve the quality of air and to reduce cumulative impacts that exist.
	Joy Bannon, Wyoming Wildlife Federation	With the increase in oil and gas development throughout Wyoming, and particularly in the Jonah and Pinedale Anticline fields, decreased visibility from the extensive drilling is taking place in our National Parks. Class I and II airsheds are being compromised and the Clean Air Act is being violated. The Pinedale RMP has a management goal to "minimize the impact of management actions in the planning area on air quality by complying with all applicable air quality laws, rules and regulations. Implement management actions in the planning area to improve air quality as practicable." (Pinedale SEIS RMP, 2-10, 2008) However, the LaBarge Infill Project will just lead to increased air pollution with the proposed additional drilling of 604 new wells and its associated construction and enhancement of new roads, increased truck traffic, well site equipment, wind erosion, combustion compressor engines, and well site equipment leaks in the project area.
	Joy Bannon, Wyoming Wildlife Federation	Cumulative air quality impacts from the EOG's proposal should be analyzed in combination with major cities in Utah and other southwestern states, the current and expanded development in the Jonah field, the current and expanded development in the Pinedale Anticline field, and the reasonably foreseeable development scenarios in the LaBarge Infill project area. Future scenarios can be predicted or estimated even outside those development plans that have presently been proposed.
	Kent Connelly, Coalition of Local Governments	CLG is concerned about the impacts of the proposed LaBarge infill project on all roads within, and near, the project area. Increased heavy truck traffic, for example, stresses road beds, drainage, and traffic capacity on roads that may already exceed their levels of service, adds to congestion in communities and contributes to dust, haze and air pollution.
	Kent Connelly, Coalition of Local Governments	Air quality in this region remains a controversial environmental issue. Due to ozone exceedances in 2006 and 2007, there are ongoing studies by Wyoming Department of Environmental Quality (WDEQ) to determine causes. Even though the results are not final, it is difficult to distinguish between pollution generated in the basin and the pollution that migrates from other western states. The increased vehicular traffic, additional residents, well site machinery, and existing central facilities, all contribute to additional air pollution that is associated with energy development, and the proposed LaBarge infill project. The source of the air pollution and balanced remedies will be important to maintain the local economies while protecting the historically high quality of air in the region.
	Kent Connelly, Coalition of Local Governments	The air quality mitigation discussion should also distinguish between particulates and ozone precursors of NOx and VOCs. The EIS must quantify how equipment will reduce NOx and VOC emissions and not contribute to potential exceedances for ozone or other air pollutants.
	Kent Connelly, Coalition of Local Governments	If area is not adequately monitored, the Operators should establish monitoring or contribute to air quality monitoring efforts.
	Larry Svoboda, EPA, Region 8	EPA recommends the Draft EIS include an analysis and disclosure of greenhouse gas emissions and climate change. While methane represents only 8 percent of the U.S. greenhouse gas emissions, is 23 times more effective as a greenhouse gas than carbon dioxide. Oil and natural gas systems are the biggest contributor to methane emissions in the U.S., accounting for 26 percent of, total (EPA's Natural Gas Star Program and the U.S. Emissions Inventory 2007: Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2005). For the Draft EIS, EPA Suggests a three step approach: 1 .Consider the future needs and capacity of the proposed action to adapt to projected regional climate change effects. 2. Characterize and quantify the expected annual cumulative emissions that would occur as a result of project's construction, operation, maintenance, and inspection activities, and use C02 equivalent as a metric for comparing the different types of greenhouse gases emitted. 3. Discuss potential means to mitigate project-related emissions. One voluntary mitigation effort targeted at the oil and gas industry is EPA's GasSTAR program. Through the program, EPA Technical experts help identify and promote the implementation of cost-effective technologies and practices to reduce GHG emissions.

Category	Commenter	Comment Text
Air Quality		
	Larry Svoboda, EPA, Region 8	EPA Region 8 recommends that BLM form an inter-agency air quality workgroup for the LaBarge Platform to specifically discuss the approach to air quality analysis, the results of the analysis, and appropriate mitigation measures. One of the primary purposes of an air quality workgroup would be to provide feedback to BLM at the earliest stages of EIS development. EPA Region believes stakeholder involvement is important at all stages of the air quality analysis including the emission inventory, the modeling protocol, analysis of results, and if necessary identification of appropriate mitigation. As mentioned in the cover letter, EPA would like to meet with BLM to discuss the air quality impact analysis planned for this EIS. In preparing the EIS, EPA Region 8 recommends the approach used by BLM to analyze and predict quality impacts be documented in an Air Quality Modeling Protocol and be fully vetted with the air quality workgroup. An Air Quality Modeling Protocol provides a "roadmap" for how the air analysis will be conducted and the results presented. It describes the model that will be used for analysis, including model settings, modeling boundaries, and important model inputs such as meteorology, background data and emission inventories. The Protocol should also generally describe the standards and thresholds to which the air impact results will be compared. EPA Region 8 recommends that a Draft Air Quality Modeling Protocol be circulated among the air quality workgroup for comment and discussion. As-part of this discussion, EPA Region 8 recommends workgroup members discuss and reach agreement on the emission inventories that will be used an the alternatives that will be modeled. EPA suggests BLM work with the air quality workgroup to obtain written concurrence from each member on the Protocol prior to proceeding with the air quality analysis. If significant disagreements persist, EPA recommends those issues be elevated within the respective agencies for resolution. By discussing the model, emission inventories and alternatives up front, BLM may avoid additional costly and time consuming air quality modeling analysis revisions at a later date.
	Larry Svoboda, EPA, Region 8	EPA would like to discuss with BLM the air and water quality impact analyses and mitigation measures planned for this EIS. By proactively working together early in the EIS process, we have to be able to assist BLM with the development of an analysis which will adequately address potential air quality and water quality impacts and identify appropriate mitigation measures.
	Larry Svoboda, EPA, Region 8	Dust particulates from construction. vehicle travel on unpaved roads, and ongoing operations are important concern. The airborne dust may not only be a visual nuisance, but can potentially be dangerous to asthma sufferers. Sedimentation from storm water run-off can also severely' pact the aquatic environment. EPA recommends the Draft EIS include detailed plans for addressing dust control for the project. The plans should include, though are not limited to dust suppression methods, inspection schedules, and documentation and accountability processes.
	Larry Svoboda, EPA, Region 8	With expanding energy development across the west, air quality has become an increasingly important issue. Given recent air quality trends in the Sublette County area, air quality win b a particularly important issue for the LaBarge Platform project. EPA notes the LaBarge Platform project is located entirely within the boundaries' of the Wyoming Department of Environmental Quality's (WDEQ) proposed non-attainment area for the ozone National Ambient Air Quality Standard (NAAQS). The NEPA analysis for this project will need to thoroughly evaluate the proposed project's potential contribution to air quality in the area. The draft EIS should analyze and disclose the project's direct, indirect, and cumulative impacts on all criteria pollutants under the NAAQS, including ozone. The analysis should also address and disclose the project's potential effect on Prevention of Significant Deterioration (PSO) increments, as well as on air quality-related values (AQRV) in Class I areas (e.g., visibility, deposition). If the analysis discloses significant impacts to air quality, the Draft EIS should include specific and detailed mitigation measures to address the impacts. Also, depending on e schedule for this project, a General Conformity applicability analysis and determination ay be necessary for this project. According to EPA policy, the General Conformity Rule (40CFR93, Subpart B) applies 1-year after the effective date that EPA formally designates an area as nonattainment. EPA recommends BLM coordinate an air quality workgroup to discuss these issues and develop an air quality modeling protocol.
	Larry Svoboda, EPA, Region 8	Hazardous air pollutants may be emitted during the drilling, completion and production of the wells. EPA recommends the EIS analyze and disclose the potential impacts on concentrations of hazardous air pollutants, including formaldehyde, benzene, toluene, ethyl benzene, xylene, n-hexane, and formaldehyde.

Category	Commenter	Comment Text
Air Quality		
	Larry Svoboda, EPA, Region 8	If the LaBarge air quality analysis discloses significant, adverse impacts to air quality, EPA Region 8 recommends the Draft EIS include specific and detailed, mitigation measures to address the impacts. EPA Region 8 also recommends the Draft EIS include modeled demonstration that the mitigation measures will be effective. A significant, adverse impact to air quality ma include contribution to predicted violations of a NAAQS and/or predicted adverse impacts on air quality related values (i.e., visibility impacts to a Federal Class I area). Air quality mitigation measures may include, but are not limited to: • Tier II greater drilling rig engines (i.e., natural gas drilling rigs) • Electric drilling rigs • Selective catalytic reduction or other secondary emission controls on drilling rig engines • Fuel additives • Electric or natural gas-fired compression • Reduced pace of development Phased development • Centralization of gathering facilities • Emission offsets • Green completions • Low or no flow pneumatic valves • Additional EPA Gas Star program measures The neighboring Jonah and Pinedale Anticline fields provide a number of examples of potential Air- quality mitigation measures which should also be considered for this project.
	Stephanie Kessler, The Wilderness Society	We have been tracking air quality concerns in the Upper Green River Valley (Upper Green) for many years. Given the recent recommendation by the Governor to designate the area as non-attainment for the national ambient air quality standard for ozone, as well as other air quality concerns such as visibility impairment over Class I airsheds in the Wind Rivers, and public concern regarding hazardous air pollutants (HAPs), we request that the BLM conduct a comprehensive, quantitative air quality analysis of the impacts of this development. This analysis should look at all cumulative emission sources in the airshed and those projected through the project life of this development. The analysis should also look realistically at the number of wells possible to drill & develop given air quality restrictions, and also consider the pace of development that is allowable.
	Stephanie Kessler, The Wilderness Society	In conjunction with this review, the BLM should also consider the feasibility of this project given the new regulations and programs initiated by WY DEQ recently (especially the NOx and VOC offset program) and also the likely new regulatory measures that will be required if (and likely when) the county is designed by EPA as non-attainment for ozone. Also, as was announced just today, the EPA plans to propose a new national standard for ozone on 12/21/09. The BLM should consult with EPA closely as to what this may mean for further restrictions of harmful ozone emissions. In fact, the BLM should wait for a decision on the non-attainment decision for Wyoming as well as the final ozone rule to see what new air quality restrictions and regulations will be required for the non-attainment area. This may greatly impact the project.
	Stephanie Kessler, The Wilderness Society	The BLM should also ensure that any operations and emissions permitted in this project do not add to, or even help maintain the area's non-attainment designation for ozone. It will not be good enough for the current operations in the basin to clean up the emission of their ozone precursors only to have this project replace those with its own, thus keeping the area in non-attainment and continuing to endanger the health of area residents. Also, as part of any final decision on the project, the BLM should consult with WY DEQ and require the installation of another ozone monitor so as to best record ozone levels that might result from this new development.
	Stephanie Kessler, The Wilderness Society	Changing air quality in the airshed has also been impacting the chemistry of high latitude lakes in the Wind Rivers, with increased nitrogen and a lowering of the lake's acid-neutralizing capacity (ANC). This is an alarming trend and has the potential to impact an important tourism, recreation as well as fisheries resource. The BLM should consult with the Bridger-Teton National Forest who is monitoring these lake changes and also consider these impacts in its analysis.
	Susan Stewart, US Forest Service	The Forest Service is very concerned about the effects this project may have on air quality in Southwest Wyoming, particularly in Wilderness Areas and National Parks that have been designated as Class I by the Clean Air Act, but also including all Wilderness Areas managed by the Forest Service as well as National Parks. We are encouraged that some operators are being proactive in trying to reduce the impacts of emissions by initiating new mitigation measures.

Category	Commenter	Comment Text
Air Quality		
	Susan Stewart, US Forest Service	Section 169A of the Clean Air Act (CCA) sets forth a national goal for visibility which is the "prevention of any future, and the remedying of any existing, impairment of visibility in Class I areas which impairment results from manmade air pollution. Adverse impact on visibility means visibility impairment that interferes with the management, protection, preservation, or enjoyment of the visitor's visual experience of the Federal Class I area. In accordance with this national goal, the Regional Haze Rule was promulgated in 1999. This rule compels state and federal agencies to improve visibility in the 156 mandatory Federal Cass I National Parks and Wilderness Areas. The rule requires the states, in coordination with the Environmental Protection Agency, the National Park Service, U.S. Fish and Wildlife Service, and the U.S. Forest Service, to develop and implement air quality State Implementation Plans to reduce the air emissions that cause visibility impairment.
	Susan Stewart, US Forest Service	Due to ongoing oil and gas exploration, development and production in SW Wyoming which overlap the plans for development of the LaBarge Platform project (1,000 potential wells over the next 10 years) there is a large concern from an air quality standpoint. Currently, there are issues of ozone nonattainment, high volumes of ozone precursors, as well as visibility impairment in nearby Class I and Class II Wilderness Areas and National Parks that need to be dealt with. It is likely that additional emissions from the development of this project will likely contribute to current existing problems. In your environmental analysis for this project, we would like you to evaluate, address, and provide the following: 1. Please conduct a detailed air quality analysis of this project, modeling all operator committed emission reductions as well as State imposed mitigation reductions. The mitigation measures should have a goal of no visibility to Class I and Class II Wilderness Areas and National Parks from the project or cumulatively. 2. Please conduct modeling alternatives to the preferred alternative showing reductions in emissions at the 0, 20, 40, 60, 80 and 100 percent levels in order to determine at which level of emission reductions will result in no impacts to visibility in nearby Class I and Class II Wilderness Areas and National Parks. 3. Please consider the benefits to air quality of requiring pipelines for water and condensation versus using trucks for the removal of these products. 4. Please also disclose the increased potential impacts to Pinedale and adjacent Class I and II Wilderness Areas and National Parks from the larger number of drill rigs, completions and flaring that will occur in cold winter conditions when inversion conditions exist. 5. Please discuss and evaluate mitigation measures which can be applied to reduce emissions from the development on the LaBarge Platform project area, including but not limited to: Use of catalytic converters, use of natural gas powered rigs, use of electric drill rigs, dual fuel drill rigs, the electrification of the gas field, the development of a gas powered co-generation system for the project, paced development, and off-site mitigation. 6. Please model for Ambient Air Quality Standards (near-field and far-field), ozone (and its precursors), AQRV impacts including deposition of nitrogen and sulfur, visibility and changes in acid neutralizing capacity of high elevation lakes.
	Tony Gosar	To minimize air pollution state of the art dehydrators need to be required.
	Walt Gasson, Wyoming Wildlife Federation	Please refer to our previous comments dated 9.9.09 on this proposed project. The Wyoming Wildlife Federation believes that the management goal of the Pinedale RMP to improve air quality conditions in the Green River Basin will not be met and in fact will be reduced with the addition of 838 wells from this proposed project. This project will contribute substantially to BLM's failure to meet air quality objectives clearly stated in the Pinedale RMP.
Aquatic Species/Fisheries		
	Cathy Purves, Trout Unlimited	We recognize that most of the streams in this project area are located on private lands. We feel that private lands provide significant fisheries and wildlife habitat and should be equally protected from BLM actions in permitting oil and gas projects. All these streams flow into the Green River. They provide a source for agricultural operations and recreational opportunities. Discussion of how the BLM intends to protect these waters from contamination and harm must be included in the DEIS.
	Cathy Purves, Trout Unlimited	Concentrating development within specific areas that do not infringe in critical wildlife and fisheries habitat or their important migration corridors should be a priority management plan for this project and such scenarios should be included in alternatives. In order to do this, a pre development inventory of the LaBarge Platform area must be conducted to gain an understanding of the habitat conditions, wildlife populations and their movements, and water resource concerns.

Category	Commenter	Comment Text
Aquatic Species/Fisheries		
	Cathy Purves, Trout Unlimited	The area within the LaBarge Platform project location contains important waters for the sensitive Colorado River cutthroat trout (CRCT). Less than 7% of this species habitat remains in the Upper Green River basin (which extends south to the UT CO border) (WGFD, 2009; TU, 2009). Within those streams in the project area, LaBarge Creek, South Piney Creek, Middle Piney Creek, Fish Creek, and the Green River contain these highly sensitive trout.
	Cathy Purves, Trout Unlimited	In addition, please incorporate the mitigation standards (including the use of fish-friendly culverts), timing stipulations, and avoidance areas for sensitive fish species.
	Cathy Purves, Trout Unlimited	Rock Creek ACEC is an existing ACEC area that is unavailable for oil and gas leasing and has been recognized by the BLM as having both relevance and importance criteria for scenic, fisheries and wildlife values. The RMP specifically states that this area will be protected to enhance wildlife habitat and ensure quality aquatic habitat for the sensitive CRCT, in addition to providing winter crucial range for elk (page 2 54). The Project map either needs to be revisited in its delineations or this portion of the ACEC needs to be withdrawn.
	Cathy Purves, Trout Unlimited	Fisheries and aquatic impacts must be analyzed prior to permitting this project.
	Cathy Purves, Trout Unlimited	Surveys for special status species will be conducted on federal lands prior to any approval of project development or any project activity approval, as described in the Final RMP ROD (Section 2.3.16, pages 2-45 through 2-54). Project pre-construction activities must include the submission by operators of baseline vegetation and habitat condition inventories of the area, aquatic and water quality samples of the area (particularly since this area has been an active drilling site since the 1920's), and an air quality monitoring plan as defined by BLM and DEQ. The results of these inventories must be submitted to the BLM in order to assist the operators in their construction plans and development activities.
	Cathy Purves, Trout Unlimited	Most of the water bodies within this project area have important conservation populations of CRCT; indeed, some have genetically pure populations which are quite important in light of the fact that CRCT have been eliminated from 90% of its historic range (Evaluation Report; WGFD). The potential for contamination of the streams and rivers that contain CRCT in these areas remain high should energy development be allowed. Benzene contamination in oil and gas industrial water wells have been identified in 88 of 230 wells in the Pinedale Anticline area (EPA 2008) and despite testing, the source of contamination is still unknown (BLM 2008). TU supports the minimum buffer or setback to all riparian and stream areas of 500 feet. We feel that an increase to 1300 feet would be significantly more protective in specific case by case areas that have brood potential. By offering protection measures on these important fisheries habitat areas and working toward developing more intensive management action plans for areas that are being developed, it is possible to maintain available quality habitat within the Pinedale BLM region.
	Cathy Purves, Trout Unlimited	There is no mention of the Conservation Agreement for Colorado River cutthroat trout (CRCT Conservation Team. 2006. Conservation agreement for Colorado River cutthroat trout (*Oncorhynchus clarkii pleuriticus*) in the States of Colorado, Utah, and Wyoming.) The Wyoming BLM is a signatory to this Agreement and conservation measures for this sensitive species are required to be included in the EIS. This will be particularly important due to the numerous streams and tributaries within the Project Area that support Colorado River cutthroat trout (CRCT) including conservation populations and pure populations of this species.
	Cathy Purves, Trout Unlimited	LaBarge Creek in particular should have a 1300 foot setback based on its importance to sustaining pure populations of CRCT. As of last year, considerable reclamation and restoration work was completed on this stream in order to enhance CRCT populations and future generations. LaBarge Creek is highly valued as crucial aquatic habitat for pure conservation populations of Colorado River cutthroat trout (CRCT). Keeping this stream free of contaminants from oil and gas operations is vital to the continued survival of this trout species. The CRCT is considered a Wyoming sensitive species, and has special status under the WGFD's management for conservation species.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	A landscape approach works well for fisheries.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Wildlife monitoring on many projects is difficult to maintain at current levels, so may not be appropriate to apply to this one. Monitoring in specific locations may help fisheries. Generally, a more holistic approach is acceptable.

Category	Commenter	Comment Text
Aquatic Species/Fisheries		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There is concern over sediment loads in streams. May need to consider willow planting to reduce sediment loads. Site-specific mitigation could be needed to avoid increasing sedimentation; however, there is no mitigation for conducting work during spawning periods. Other mitigation options would be on a site-specific basis determined on the ground.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Enhancements to support fish habitat/populations built into the proposed project. It might be a good area to think about projects for enhancements to habitat.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Monitoring for geomorph (Rosgin stations) may be needed to determine or evaluate stream meander. Streams for this type of monitoring would be selected based on the likelihood of picking up changes in meander. This would represent an extra level of monitoring, so would need to talk to a geomorphologist to determine need or process. Monitoring at the Pine Group of Fogerty Creek could be useful, since this location had cutthroat trout population historically. This could be a good location for habitat enhancement. The monitoring process described is in use in Atlantic Rim for 2 years at this point (coming up on 3 years of data), so BLM may be able to determine the usefulness of the method based on that project.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Species that will need to be discussed in the EIS include northern leopard frogs [potential for listing] as well as other amphibians and lizards. There are Boreal toad breeding sites and Colorado River Cutthroat trout in the project area. These species will need protection for existing habitat, as well as potential improvements associated with the project. It could be good to address the potential for habitat improvements in the EIS as part of the project. Note that in increase in the number of roads could increase the impacts to amphibians. There are no known sensitive reptiles in the project area.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Need to consider invasive species in the EIS, and include discussions of whirling disease, water transport between channels, and noxious weeds.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There is concern over sediment loads in streams. May need to consider willow planting to reduce sediment loads. Site-specific mitigation could be needed to avoid increasing sedimentation; however, there is no mitigation for conducting work during spawning periods. Other mitigation options would be on a site-specific basis determined on the ground.
	John Emmerich, Wyoming Game and Fish Department	Information regarding the effects of energy development on amphibians is lacking. Energy development is likely to affect each amphibian species differently based upon life history. Permanent bodies of water, wetlands, ephemeral pools, and playas are of particular concern. Amphibians are highly dependent on water to complete their lifecycle (aquatic tadpole or larval phase). Loss of water on the landscape during the larval period could negatively affect amphibian populations. This effect could be exacerbated with successive years of water loss. Road mortality may increase during specific times of year based upon breeding chronology. Spring breeding migrations and summer post-metamorphic emergence, result in amphibian congregations. Large mortality events could occur if these congregations were located on or near roads. Roads should not bisect or run immediately adjacent to any water feature, or prevent anurans from reaching adjacent habitat. Noise could interrupt breeding congregations of frogs and toads. Additional data is needed regarding the effects of energy development on amphibians. It is recommended that surveys be conducted on a diverse array of amphibians and habitats to ensure that impacts are minimized.
	John Emmerich, Wyoming Game and Fish Department	Motorized roads should only remain open to vehicles with the stipulation that these roads be designed to avoid crucial habitats and seasonal ranges, and result in minimal disturbance to wildlife and big game that currently use the project area. The PRMP provides specific guidance with reference to transportation plans and road design. Roads designated as open to motorized vehicles should be constructed in accordance with standards described in PRMP. Roads that are designated as open to motorized vehicles should reduce sedimentation into streams, provide buffers along live steams, govern steepness of slope grade, identify seasonal road closures, and adhere to wildlife seasonal range restrictions. We encourage the BLM to reroute/close routes that make extensive use of riparian and wetland systems. Such habitats provide important habitat for a myriad of wildlife species and compromise a low percentage of the Infill landscape.
	John Emmerich, Wyoming Game and Fish Department	No instream channel activity on Trail Ridge, North Beaver, South Beaver, Spring and LaBarge Creeks from June 1 - August 1 to minimize impacts to spawning and incubating native cutthroat trout.

Category	Commenter	Comment Text
Aquatic Species/Fisheries		
	John Emmerich, Wyoming Game and Fish Department	Impacts to water quality and quantity and the impacts those changes will have on water temperature, suspended sediment, bedload, dissolved oxygen, pH of the water, and nutrients in the water. These inputs will not only have negative impacts on fish but also other aquatic organisms within the watershed (macroinvertebrate, algae, amphibians).
	John Emmerich, Wyoming Game and Fish Department	Maintain a 500 foot riparian buffer for all perennial streams; Maintain a 300 foot riparian buffer for ephemeral or intermittent drainages.
	John Emmerich, Wyoming Game and Fish Department	1) Create habitat maps for development area, taking into account ephemeral water features such as vernal pools and playas. Mapping will occur within 200 meters from proposed roads (100 meters on each side) and a circular radius of 200 meters from each pad. 2) Contact the Wyoming Game and Fish Department to determine sensitive habitats or species within the development area. If amphibian monitoring is required, amphibian protocols can vary based upon species present. Examples of requested protocols could include: a. Acoustic breeding surveys should be conducted at least three times annually on all water features. Surveys periods should be temporally spaced to include peak calling of all amphibians estimated to be within the study area. b. During spring, small funnel traps should be placed in aquatic features to assess salamander populations. c. During late summer, visual encounter surveys should be conducted to look for post-metamorphic anurans. These surveys should be designed to assess recruitment into the population. Surveys should have a time or area constraint in order to estimate relative abundance. d. Additional protocol information can be found in the reference: Measuring and monitoring biological diversity: standard methods for amphibians. 1994. W. R. Heyer, M. A. Donnelly, R.W. McDiarmid, L.A. C. Hayek, and M. S. Foster, editors. Smithsonian Institution, Washington, D.C. Pp 364. 3) Mitigation may be required if sensitive habitats or species are impacted. 4) Because of breeding chronology and the secretive nature of some species, two years of survey are recommended before development begins. During pre-development surveys, important amphibian areas (such as breeding sites) should be designated for avoidance during construction. Surveys should be conducted at least three years post-construction to determine possible effects of development on amphibian species.
	John Emmerich, Wyoming Game and Fish Department	This project is located within Colorado River cutthroat trout core conservation watersheds and habitats within the drainages have been identified as crucial habitat and should be given high priority and protection in developing this project. Activities within these watersheds should provide adequate habitat protection for the long term sustainability of native sport fish and native nongame aquatic species. It is pertinent that this project meets the direction or intent covered by the Conservation Agreement and Conservation Strategy which was signed by several agencies including the Bureau of Land Management. In order for the Bureau of Land Management to meet the conservation agreement and strategy, habitat must be managed and maintained to achieve the following: • Secure and protect habitats for all conservation populations covered within the agreement and strategy by preventing habitat degradation and fish mortality; • Enhance or restore habitat used by conservation populations to near optimal conditions by implementing actions to enhance habitats and to curtail undesirable impacts from ongoing land practices; • Consider cutthroat trout as a high priority during all land use planning; Provide spawning, rearing and adult habitats that meet "desired condition"; • Provide long term sustainability of Colorado River cutthroat trout. This proposed activity is located within the lower portions of Spring, Trail Ridge, North Beaver, South Beaver, Pine Grove and LaBarge Creek all which do support populations of Colorado River cutthroat trout.
	John Emmerich, Wyoming Game and Fish Department	Fish passage should be allowed at all times during project construction.
	John Emmerich, Wyoming Game and Fish Department	A spill prevention control and countermeasure plan should be fully developed and approved before drilling begins.
	John Emmerich, Wyoming Game and Fish Department	Impacts to habitat and population for BLM sensitive species within the project area. Those species include Colorado River cutthroat trout, northern leopard frog, and boreal toads.
	John Emmerich, Wyoming Game and Fish Department	Impacts to habitat and population for BLM sensitive species within the project area. Those species include Colorado River cutthroat trout, northern leopard frog, and boreal toads.

Category	Commenter	Comment Text
Aquatic Species/Fisheries		
	John Emmerich, Wyoming Game and Fish Department	Other streams within the project that are of fisheries importance include North Piney Creek, Middle Pine and South Piney Creeks. Though these streams are not managed for native species they are important recreational fisheries for cutthroat trout, brown trout, rainbow trout, and brook trout. Native nongame species also occupy these watersheds. Issues related to this project that should be analyzed in the EIS include the following:
	John Emmerich, Wyoming Game and Fish Department	Hydrostatic test waters released during pipeline construction could cause alterations of stream channels, increased sediment loads and introduction of potentially toxic chemicals into drainages, thereby resulting in adverse impacts to aquatic biota. Furthermore, release of water into drainages other than the source drainage can result in an unacceptable risk of introducing aquatic nuisance species (New Zealand mud snail, Zebra mussels, whirling disease spores, aquatic invasive plants, etc.). Introduction of aquatic nuisance species can be devastating to the ecosystems of vast basins in the receiving waters. To minimize impacts, we recommend the direct discharge of hydrostatic test waters to streams other than the source water be avoided. Discharge should occur into the source drainage in a manner that does not increase erosion or alter stream channels. Discharge should occur into temporary sedimentation basins and the dewatering of the temporary sedimentation basin should then be done in a manner that precludes erosion.
	John Emmerich, Wyoming Game and Fish Department	We recommend no net loss of habitat function within the biological community that encompasses the project area, or if impacts are likely, replacement of the affected habitats or enhancement of similar habitats. Also, the zone of influence surrounding well pads, roads and facilities should be considered for individual species. Avoidance of oil and gas project areas by wildlife can result in decreased effectiveness of habitat and increased physiological stress (Hebblewhite 2008). Roads and wells can result in barriers to movement, habitat fragmentation, and loss of habitat effectiveness (Sawyer et al. 2009). Oil and gas development can result also in increased sedimentation and decreased habitat quality of aquatic ecosystems.
	John Emmerich, Wyoming Game and Fish Department	All oil drilling operations and related equipment should be placed within adequate dikes to protect against possible spills.
	John Emmerich, Wyoming Game and Fish Department	No Surface Occupancy (NSO). No surface occupancy stipulations should be applied to riparian corridors and within areas designated as wetlands. In addition, at least a 500 foot buffer should be applied to development near riparian and wetland habitats. We recommend that areas that support sage-grouse leks, sage grouse nesting habitat, sage grouse winter habitat, and certain areas where big game concentrate each winter should receive an NSO designation.
	John Emmerich, Wyoming Game and Fish Department	No storage ponds should be located within the 100 year floodplain or 500 feet from perennial drainages whichever provides the best protection to the aquatic resource
	John Emmerich, Wyoming Game and Fish Department	Currently, we do not have information regarding the effects of this project on aquatic habitats. Much is known, however, about the effects of increased sediment in streams. Stream channels respond to increased sediment supply by adjusting their pattern (sinuosity) and dimensions. These changes may result in decreased pool depths, decreased riffle area, less diversity in channel substrate and increased lateral instability marked by eroding banks. These changes along with direct effects from increased sediment loading can affect macro invertebrate populations and diversity and decrease fish habitat. A common impact is a decrease in gravel and cobble used by spawning fish.
	John Emmerich, Wyoming Game and Fish Department	Potential impacts to amphibians species will vary based upon location and species present. Impacts that could potentially occur include: 1) mortality associated with infrastructure development; 2) disturbance due to noise; and 3) collision and mortality due to vehicles.
	Joy Bannon, Wyoming Wildlife Federation	The 2008 Pinedale Resource Management Plan has a management goal to "maintain or enhance aquatic and wildlife habitat." (Pinedale RMP, 2-45, Nov. 2008) The aquatic fish population numbers should be maintained at existing levels or enhanced as the goal is written. If habitat is below potential, that habitat should be improved. The first priority of the Forest Service should be streams that include CRCT. Streams and water bodies just outside the LaBarge Infill Project's proposed development are likely to be impacted by the project as well. These include: the LaBarge Creek, Dry Piney Creek, Pine Grove Creek, Spring Creek, the Sixty seven Reservoir, Birch Creek, and Black Canyon Creek. Streambeds and bank stability that support aquatic life should be maintained for all waterways within and outside the LaBarge Infill Project
	Joy Bannon, Wyoming Wildlife Federation	Provide the most current impact data to wildlife and fisheries from mineral extraction development and production.

Category	Commenter	Comment Text
Aquatic Species/Fisheries		
	Joy Bannon, Wyoming Wildlife Federation	When contemplating whether to approve EOG's proposed development of 604 wells, the BLM should consider the importance of the Colorado River cutthroat (CRCT) as it is an imperiled cutthroat trout subspecies. This species is labeled as a stream species of greatest conservation need in Wyoming by the WGFD (WGFD, 2005 *A Comprehensive Wildlife Conservation Strategy for Wyoming,* Cheyenne, WY. 125 pp). And, the Forest Service has recognized cutthroat trout (specifically Colorado River) as a Management Indicator Species. The CRCT has been pushed by habitat alterations and non-native trout to isolated, higher elevation tributaries where the quality of the habitat is greater and the introduction of non-native species are reduced. These small populations, however, do not meet habitat and quantity requirements for long-term survival and environmental alterations (such as wildfire and floods), which could eliminate entire populations. The WGFD recognize the need for CRCT protection and with that have identified mitigation measures (WGFD Mitigation Recommendations, 2007) to reduce impacts to wildlife and fisheries habitats associated with oil and gas development in Wyoming.
	Joy Bannon, Wyoming Wildlife Federation	Provide current inventory studies and a full analysis (which may need to be conducted before the proposed project can be approved) of wildlife habitat, wildlife species, current riparian and stream habitat conditions for fisheries that depend on the project area. In addition, a complete inventory of coldwater fish species upstream and downstream of the project area is needed.
	Joy Bannon, Wyoming Wildlife Federation	This project area is surrounded by waterways – the Green River on the east, LaBarge Creek to the south, North Piney and Spring Creek to the north and Middle Piney and South Piney Creeks running through its middle. The Green River portion in this project area has brown trout, cutthroat trout, rainbow trout and whitefish. And the South Piney Creek has Colorado River cutthroat trout. These fish species are susceptible to the cumulative affects that will occur if this project is developed: habitat fragmentation and degradation, as well as climate change. Also, road building and vegetation removal will increase erosion causing higher levels of sediment in the Green River and the nearby tributaries and creeks, which will cause harm and possible death to these fish populations
	Larry Svoboda, EPA, Region 8	The EPA also recommends the EIS disclose the extent to which aquatic habitat could be impaired by potential activities, including effects on surface and subsurface water quality and quantity, aquatic biota, stream structure and channel stability, streambed substrate, including season and spawning habitats, stream bank vegetation, and riparian habitats. Particular attention should be directed at evaluating and disclosing the cumulative effects of increased levels of erosion and sedimentation. Water quality parameters such as conductivity, dissolved and suspended solids, metals, pH, temperature, dissolved oxygen and physical aquatic habitat parameters may also be important monitoring indicators for determining stream or lake impairment or tress, as well as its sensitivity to further impacts. Existing water quality standards applicable to affected waterbodies should be presented to provide a basis for determining whether existing uses will be protected and water quality standards met.
Categorical Exclusions		
	Cathy Purves, Trout Unlimited	Please incorporate two additional Memorandum guidance decisions that have just been released. They include "*Establishing and Applying Categorical Exclusions under the National Environmental Policy Act"* and *"Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions".* Both are dated February 18, 2010. In light of the fact that some of the Operators in this proposal are already asking for exclusions and exceptions, this material should be relevant.
	Cathy Purves, Trout Unlimited	Portions of two Special Designation and Management Areas should be excluded from the project area as it appears they overlap into the Project area.
	Cathy Purves, Trout Unlimited	According to the Pinedale RMP Map 2 33, the eastern portions of Rock Creek ACEC and Lake Mountain WSA might be included within the LaBarge Project Area. These two special areas contain important wildlife and fisheries values that were deemed worthy of special protection by BLM.
	Cathy Purves, Trout Unlimited	The Lake Mountain WSA may also contain portions of its eastern boundaries within the Project area.
	Cathy Purves, Trout Unlimited	Rock Creek ACEC is an existing ACEC area that is unavailable for oil and gas leasing and has been recognized by the BLM as having both relevance and importance criteria for scenic, fisheries and wildlife values. The RMP specifically states that this area will be protected to enhance wildlife habitat and ensure quality aquatic habitat for the sensitive CRCT, in addition to providing winter crucial range for elk (page 2 54). The Project map either needs to be revisited in its delineations or this portion of the ACEC needs to be withdrawn.

Category	Commenter	Comment Text
Cultural Resources		
	Bruce Barrett, Bureau of Reclamation	Before any ground disturbing activities associated with the LaBarge Platform Exploration and Development Project take place, cultural resource investigations must be completed in compliance with Section 106 of the National Historic Preservation Act of 1966. This may include, but is not limited to, the completion of Class I and Class III cultural resource inventories. In the event that any cultural and/or paleontological site, feature or artifact (historic or prehistoric) is discovered on Federal land, whether on the surface or as an inadvertent subsurface discovery, it shall immediately be reported to the Provo Area Office Archaeologist. At that time an evaluation will be made by the archaeologist to determine appropriate actions to prevent loss of significant cultural or scientific value. In the case of an inadvertent discovery of human remains, the applicant shall immediately provide an oral notification to Reclamation's authorized official, of the discovery of human remains on Reclamation land. The applicant shall forward a written report of their-findings to Reclamations authorized official within 48 hours. The applicant shall leave such discoveries intact until authorized to proceed by Reclamation's authorized official. Protective and mitigative measures specified by Reclamation's authorized official shall be the responsibility of the applicant.
	Bruce Pendery, Wyoming Outdoor Council	Lander Trail. It appears that a portion of the Lander Trail traverses the project area. The RMP makes a number or provisions for protection of this resource in the RMP and the BLM must ensure careful adherence to them.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The Native Americans may also have some herb gathering areas for biscuit root. Previously, companies had avoided some areas for locating wells in the Birch Creek Unit based on this issue.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that the area around the trail (Lander Road) is leased for development by EOG.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Would suggest a later conference call after SHPO takes deeper look at the project description for more particulars on issues/alternatives.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	SHPO is also OK with waiting until a draft chapter is available to review the issues.
	Dan Budd, Budd & Sons Land Co.	Want to make sure that there is no encroachment on the Lander cut-off of the Oregon Trail.
	David Welch, Oregon-California Trail Association	I would like to call your attention to the presence of the Lander Road, a portion of the California National Historic trail, in the northern part of the project area. I assume it will receive appropriate attention as an important cultural reosurce, as noted in the scoping notice. New activities should avoid the trail and minimize impact to the setting.
	Kent Connelly, Coalition of Local Governments	The EIS must also ensure that "its actions and authorizations are considered in terms of their effects on cultural resources located on non-Federal land." BLM Manual 8100.08. This analysis must recognize the limits of BLM authority with respect to nonfederal land interests and not interfere with private property interests. While the mitigation of adverse effects on cultural resources may be required as a condition of a lease, permit, or license issued by BLM, the regulatory authority is limited to federal lands. Id.
	Lee Kreutzer, National Park Service	The proposal appears to have some potential to affect the Lander Cutoff of the California National Historic Trail. We ask that BLM identify potential effects to that and any other national historic trail in or near the project area and evaluate both direct and indirect impacts to the trail and its setting. It is always helpful for compliance documentation to include maps showing the location of the NHTs and related resources relative to project components such as wells and pipelines, and it is further useful to include visual analyses showing how structures would appear when viewed from critical points along the trail. Directional drilling for pipelines beneath intact trail segments is desirable whenever feasible.

Category	Commenter	Comment Text
Cumulative Impacts		
	Bill & Martha Underwood	I am apprehensive of the number of new wells your proposal is considering. Evidently wells already exist (they are clearly visible on Google Earth photographs) in abundance. A proposal by the UGRBWGA to restrict new drilling sites in favor of horizontal drilling from existing sites seems more sensible. Where new drilling is deemed necessary, they should not be allowed to proceed until formerly abandoned drilling sites have been fully restored to pristine conditions. This will reduce the likelihood of increased habitat fragmentation and resource depletion. I'm certain your office has access to all these guidelines and more. I won't belabor the details further
	Cathy Purves, Trout Unlimited	All alternatives must include landscape and cumulative analysis impacts to neighboring public lands (Bridger Teton National Forest) and to private lands from displacement of wildlife due to the ever increasing loss of habitat due to energy development.
	Cathy Purves, Trout Unlimited	The recently approved Cimarex project should be evaluated from a landscape impact on this project as portions of its plans transact through this LaBarge project area.
	Cathy Purves, Trout Unlimited	The BLM should investigate the cumulative impacts from an increase in the size and scale this project has on wildlife populations adjacent and to the north of this project. If we continue to marginalize habitat and force big game and sage grouse to compensate for loss of their winter habitat, the BLM will be responsible for the loss of some of the largest big game herds in the West and the decline of the sage grouse. FLPMA requires that BLM has an obligation to minimize environmental impacts and any authorizing action that causes harm, increases ongoing harm or creates undue degradation to the public lands makes BLM in violation of federal policy statutes (43 U.S.C. § 1732(b)).
	Cathy Purves, Trout Unlimited	Should these two areas be outside of the Project boundaries, TU would like to see additional impact analysis conducted that includes cumulative effects likely to occur from such close development access. Migration routes for big game and water issues remain of high concern.
	Cathy Purves, Trout Unlimited	The USFS should be included in this analysis based on the number of projects within the Riley Ridge area.
	Cathy Purves, Trout Unlimited	Renewable energy projects must also be included in this cumulative analysis, including wind development, geothermal development and potential solar development.
	Cathy Purves, Trout Unlimited	As part of this cumulative analysis the role the Wyoming Landscape Conservation Initiative (WLCI) has in the protection of wildlife habitats in this area must be discussed.
	Cathy Purves, Trout Unlimited	Finally, we asked that a thorough cumulative and landscape analysis be completed that includes the proposed and looming renewable energy development projects scheduled to occur in the near future.
	Cathy Purves, Trout Unlimited	In the 2008 Project Description (page 5) there is a section that discusses existing oil and gas development in the Project Area. This section has not been included in the December 2009 Project Description and should be. It is an important piece of information that affects the BLM's ability to adequately plan for and implement mitigation, future leasing, development, and monitoring. We request that this be included in the EIS and be thoroughly reviewed and analyzed.
	Cathy Purves, Trout Unlimited	There are significant oil and gas development projects currently underway and being planned for in this area and a thorough cumulative analysis must be conducted.
	Cathy Purves, Trout Unlimited	Landscape scale cumulative analysis should be conducted for this Project.
	Cathy Purves, Trout Unlimited	There are no reasonable foreseeable development discussions in any of the Development Plans on federal lands.
	Erik Molvar, Biodiversity Conservation Alliance	BLM will need to analyze cumulative impacts of the Labarge Platform Project together with other industrial projects/impact sources in neighboring lands, including but not limited to: the existing Labarge oil field, the Riley Ridge field, scattered wildcatting wells along the flanks of the Wyoming range, the South Piney Coalbed Methane Project (which is reasonably foreseeable because it is also in the NEPA process), the Jonah and Pinedale Anticline Fields, the Moxa Arch Field, ExxonMobil's Shute Creek plant, and the Viva Naughton coal-fired power plant. Impacts to water quality and quantity should include potential impacts of coalbed methane development, water development and dam projects including the Million Conservation Resource Group transbasin diversion, and potential oil shale development in the area.

Category	Commenter	Comment Text
Cumulative Impacts		
	Jason Fearneyhough, Wyoming Department of Agriculture	The existing oil and gas development of approximately 2,940 wells has already heavily impacted the PA. We encourage the Pinedale Field Office (PFO) recognize and account for these impacts in the analysis of cumulative effects. The majority of the existing wells are located within the North LaBarge Common Allotment. The existing impacts, along with the additional proposed new wells may negatively impact vegetation, wildlife habitats, grazing allotments and livestock grazing operations. It is critical the PFO determine what criterion creates significant impacts to livestock grazing operations on the 25-grazing allotments, and develop methods to reduce/mitigate these impacts below the Significance level.
	John Emmerich, Wyoming Game and Fish Department	We are very concerned with the indirect and cumulative impacts to aquatic resources associated with this project. The construction of roads and pads will change how water will run off of the landscape. This change will affect the infiltration rate of water, increase the velocity and quantity of water running across the landscape, and potentially could increase erosion and sediment deposition into nearby waterways. Roads have the potential for having the most profound impact on hydrology. Changes in hydrology across the landscape will then be reflected in changes in the geomorphology of perennial streams within the project area and downstream of the project area. Ultimately, changes in geomorphology will directly influence aquatic habitat which may impact fish populations.
	John Emmerich, Wyoming Game and Fish Department	Cumulative effects on nongame native species and T&E species should incorporate analysis of impacts from other proposed and ongoing projects in the immediate and adjacent areas in the Wyoming Range including other oil and gas leases, timber harvesting (past and proposed), livestock grazing, road building, and recreation use. Given the large number of historic, current and proposed projects in adjacent habitat, and the quality of habitat in the LaBarge Infill project area, a conservative approach is recommended in developing additional oil and gas resources.
	Jonathan Ratner, Western Watersheds Project Wyoming Office	The BLM needs to stop cutting things into small pieces and start thinking holistically. All the fields in the FO need to be managed under one set of rules. PAWG, JIO etc need to be merged to cover the whole FO.
	Joy Bannon, Wyoming Wildlife Federation	A complete and accurate assessment of the impacts (such as contamination and demands on water), including reasonably foreseeable impacts and baseline sampling, should be conducted to ground and surface water related to this proposed development. This must be accomplished prior to approval of this proposed development.
	Joy Bannon, Wyoming Wildlife Federation	Provide cumulative impact analysis of the oil and gas activities and how they affect social and human health. Adjacent Green River Basin oil and gas development (Pinedale Anticline and the Jonah) should also be included in the analysis. Air emissions, crime, increased traffic, community infrastructure impacts, and county and city services that will be affected by approval of this project.
	Joy Bannon, Wyoming Wildlife Federation	Provide a complete description of the subsurface hydrology of the project area with information on how the aquifers will be affected by the proposed activities. This characterization is needed to estimate the produced water quality and quantity from the project.
	Joy Bannon, Wyoming Wildlife Federation	Cumulative air quality impacts from the EOG's proposal should be analyzed in combination with major cities in Utah and other southwestern states, the current and expanded development in the Jonah field, the current and expanded development in the Pinedale Anticline field, and the reasonably foreseeable development scenarios in the LaBarge Infill project area. Future scenarios can be predicted or estimated even outside those development plans that have presently been proposed.
	Joy Bannon, Wyoming Wildlife Federation	Develop a landscape scale, cumulative impacts analysis that addresses the oil and gas development in the Green River Basin (Pinedale Anticline and the Jonah) and within the project area and how that impacts crucial habitat, and crucial ranges (such as winter, summer and transitional) for wildlife species, including ungulate populations, as a whole. This will entail the issue of species being pushed onto less suitable habitat. In creating this analysis, the BLM must use the most up-to-date big game seasonal range designation maps that the WGFD will provide.
	Joy Bannon, Wyoming Wildlife Federation	This project area is surrounded by waterways – the Green River on the east, LaBarge Creek to the south, North Piney and Spring Creek to the north and Middle Piney and South Piney Creeks running through its middle. The Green River portion in this project area has brown trout, cutthroat trout, rainbow trout and whitefish. And the South Piney Creek has Colorado River cutthroat trout. These fish species are susceptible to the cumulative affects that will occur if this project is developed: habitat fragmentation and degradation, as well as climate change. Also, road building and vegetation removal will increase erosion causing higher levels of sediment in the Green River and the nearby tributaries and creeks, which will cause harm and possible death to these fish populations

Category	Commenter	Comment Text
Cumulative Impacts		
	Joy Bannon, Wyoming Wildlife Federation	"Identify areas at risk where the cumulative effects of natural events and human activities have diminished quantity and quality of" big game habitats. (WGFD, Mule Deer Initiative, 2007)
	Kent Connelly, Coalition of Local Governments	The EIS must thoroughly address the direct, indirect, and cumulative impacts on livestock grazing operations affected by the proposed action. The Coalition estimates that 22 allotments and 7681 animal unit months (AUMs) are potentially affected by the proposed action. Moreover, the seasons of use coincide for the most part with the times when energy development can also occur, that is between May and November of each year. See Pinedale RMP, App. 20. Thus, there appears to be significant overlap and, thus, the potential for conflict that needs to be addressed.
	Larry Svoboda, EPA, Region 8	The EPA also recommends the EIS disclose the extent to which aquatic habitat could be impaired by potential activities, including effects on surface and subsurface water quality and quantity, aquatic biota, stream structure and channel stability, streambed substrate, including season and spawning habitats, stream bank vegetation, and riparian habitats. Particular attention should be directed at evaluating and disclosing the cumulative effects of increased levels of erosion and sedimentation. Water quality parameters such as conductivity, dissolved and suspended solids, metals, pH, temperature, dissolved oxygen and physical aquatic habitat parameters may also be important monitoring indicators for determining stream or lake impairment or tress, as well as its sensitivity to further impacts. Existing water quality standards applicable to affected waterbodies should be presented to provide a basis for determining whether existing uses will be protected and water quality standards met.
	Larry Svoboda, EPA, Region 8	In addition to the evaluation and discussion of direct and indirect impacts, EPA recommends the Draft EIS provide cumulative impact analyses for resources of concern. The EIS should analyze impacts according to airsheds and watersheds, rather than political boundaries. The assessment should include the cumulative impact of reasonably foreseeable energy development, energy-related activities and other activities that may affect air quality, water quality and other resources of concern in the area. The purpose of a cumulative impacts analysis is to assess the incremental impacts on each resource of concern due to connected and unconnected actions that take place in a geographic area over time (i.e., past, present and future) no-matter which entity (public or private) undertakes the actions. Cumulative impact analysis aids in identifying the level of significance of those impacts on a particular resource and the appropriate type and level of mitigation required to offset the current proposal's contribution to these impacts.
	Stephanie Kessler, The Wilderness Society	We have been tracking air quality concerns in the Upper Green River Valley (Upper Green) for many years. Given the recent recommendation by the Governor to designate the area as non-attainment for the national ambient air quality standard for ozone, as well as other air quality concerns such as visibility impairment over Class I airsheds in the Wind Rivers, and public concern regarding hazardous air pollutants (HAPs), we request that the BLM conduct a comprehensive, quantitative air quality analysis of the impacts of this development. This analysis should look at all cumulative emission sources in the airshed and those projected through the project life of this development. The analysis should also look realistically at the number of wells possible to drill & develop given air quality restrictions, and also consider the pace of development that is allowable.
	Stephanie Kessler, The Wilderness Society	We are very concerned with habitat loss and fragmentation and other impacts to big game, sensitive species and of course, sage-grouse in the area. The BLM's analysis needs to take a comprehensive look at the impact of this project in combination with other major developments in the area, particularly with the nearby Cimerex proposal and also the Jonah and Anticline fields. Mule deer and elk are of particular concern. The loss of habitat across the region, and displacement are affecting not only herd size, but also age make-up of the herds. The BLM needs to conduct an analysis of how this development affects the local outfitter and tourism-based businesses that depend upon healthy and productive big-game herds, and also older-aged animals for trophy deer and elk hunts.
	Susan Stewart, US Forest Service	Recently, there has been a flurry of proposed, large-scale natural gas projects in Southwest Wyoming, including the Continental Divide/Wamsutter II, Pinedale Anticline Project, Jonah Infill, Moxa Arch Infill EIS, Hiawatha EIS and others. Air quality analysis, completed as part of the NEPA process for the above-mentioned authorized projects, indicate there is a cumulative impact from these projects on visibility in nearby Federally Mandated Class I and Class II Wilderness Areas. In addition, analysis completed for the proposed Jonah Infill Draft and Supplemental analysis has shown that even with an 80 percent reduction from the proposed action that there will be impacts to the Bridger Wilderness from the project alone on 3 days per year. Modeling for the Pinedale Anticline Supplemental EIS also showed an impact of 25 days of visibility impairment at the Bridger Wilderness from the project alone and with a cumulative impairment of visibility of 56 days using project and other regional source data for this same area.

Category	Commenter	Comment Text
Field Operations		
	Bill & Martha Underwood	I am apprehensive of the number of new wells your proposal is considering. Evidently wells already exist (they are clearly visible on Google Earth photographs) in abundance. A proposal by the UGRBWGA to restrict new drilling sites in favor of horizontal drilling from existing sites seems more sensible. Where new drilling is deemed necessary, they should not be allowed to proceed until formerly abandoned drilling sites have been fully restored to pristine conditions. This will reduce the likelihood of increased habitat fragmentation and resource depletion. I'm certain your office has access to all these guidelines and more. I won't belabor the details further
	Bruce Pendery, Wyoming Outdoor Council	The BLM's Gold Book "Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development – The Gold Book") provides binding guidance regarding BLM's oil and gas development decision-making. Under the Gold Book, the BLM must minimize undesirable impacts to the environment, the long-term health and productivity of the land must be assured, and the BLM and operator must minimize long-term disruption of the surface resources and use and promote successful reclamation. Gold Book at 2, 15. While the objective is to maximize oil and gas recovery, this is to be done "with minimum adverse effect on … other natural resources, and environmental quality." *Id.* At 37. Thus, it is clear that one source of authority requiring the BLM to minimize impacts from the LaBarge Platform Project is the Gold Book.
	Cathy Purves, Trout Unlimited	Please provide more realistic data on the amount of time this Project Description will attribute to completion and testing operations. EOG stated for their single project proposal in 2008 that 3-10 days were required to perform such operations and that 2 to 30 people and 1 to 20 vehicles are required on location. These same figures are being used for all four project operators in the 2009 proposal. This does not reflect true estimates and will most likely have an effect on how the BLM prepares the EIS.
	Cathy Purves, Trout Unlimited	As the proposed action, EOG intends to conduct infill drilling and exploration to develop the hydrocarbon resource from their leases within the La Barge Platform Exploration and Development Project Area that includes northern Lincoln County and southern Sublette County. EOG also proposes to explore and drill on a year round basis. While the project location is located within an existing oil and gas producing area in approximately 218,000 acres of public, state and private lands, this land also supports crucial big game habitat, sage grouse habitat, and important fisheries habitat. TU has concerns that this area is fast becoming an industrial zone similar to that which exists north of this area in the Pinedale Anticline and Jonah Infill area. For a number of reasons discussed below, we feel that the BLM should slow the pace of this drilling request in order to adequately and pragmatically review the significant impacts likely to occur.
	Cathy Purves, Trout Unlimited	Should the BLM continue to evaluate all five proponent's proposals under one EIS, there is no discussion of unitization within the project area. The BLM has in the past used unitization as a way of selling to the public the idea of better management, monitoring, and the implementation of environmental mitigation options. Unitization should be part of the project operations in the Draft EIS (DEIS).
	Cathy Purves, Trout Unlimited	Produced water impacts should also be included in the EIS analysis, including production, storage, requirements, technical challenges, and treatments.
	Cathy Purves, Trout Unlimited	The use of pipelines to transport produced and waste water should be implemented rather than the use of trucking. This will reduce soil erosion, sedimentation, roads, air pollution, and wildlife and livestock encounters with trucks.
	Cathy Purves, Trout Unlimited	Please provide the supportive data in the EIS that shows how much water is produced in the Project Area from gas wells.
	Cathy Purves, Trout Unlimited	Please update the water usage summary to reflect all four operators' potential use. The same data that was used in EOG's 2008 proposal is being used in this 2009 proposal. This includes the amount of water used per well which could be significant since the plan calls for nearly 1000 wells to be drilled. An updated and more defined summary and table should be provided that identifies the amount of water usage per well per location. Also include the figures that would define how many more fracture stimulations are typically required in the larger horizontal wells since there are a significant number of these wells being proposed. Table 4 on page 13 appears to be missing a column for the estimated water use for the Baxter formation wells. The table also differs from the 2008 version in that while there are less wells being planned for the 2009 Project Description, there is an increase in acre feet from the 2008 estimate. Please address this and provide adequate discussion on the details of water usage and treatment.

Category	Commenter	Comment Text
Field Operations		
	Cathy Purves, Trout Unlimited	This entire discussion is based on old data and reflects the 2008 Project Description. Please update this section, including the Air Quality discussion (which lacks any specifics or results of their multi-phased evaluations on desiccant dehydrators and the efficacy of plumbing trace pump exhaust back into the burner of the separator to minimize VOCs).
	Cathy Purves, Trout Unlimited	Only temporary pipelines should be on the surface and "temporary" should be described as less than one year. Surface pipelines, once accumulated, provide access hazards for wildlife, look unsightly, and may adversely impact soils and vegetation.
	Cathy Purves, Trout Unlimited	Please refer to all of the above mentioned considerations earlier discussed for this section that addresses wildlife and fish habitat, specific species concerns, and mitigation practices.
	Cathy Purves, Trout Unlimited	The BLM should require more discussion and explanation for the installation of duplicate facilities on a well pad, as described on page 15. This has implications in terms of size of pad, emissions, “contending” with multiple operators and ensuing management and compliance.
	Cathy Purves, Trout Unlimited	Please provide more information and supportive reasoning to the request by the operators to construct during nighttime hours.
	Cathy Purves, Trout Unlimited	A more up-to-date discussion on hydraulic fracturing and the use of chemicals for fracking needs to be included in the EIS. On page 10, a cursory review of dated information implies there is no harm. This section requires the addition of new information, the implementation of treating fracking waters, and a clarification in the 3rd paragraph which states that no hazardous substances would be placed in the reserve pits. Reserve pits contain used drilling fluids, cuttings, and produced water containing the chemicals used in fracking. Such mixtures are identified on page 9 as well. This same correction and discussion needs to occur on page 11.
	Cathy Purves, Trout Unlimited	The discussion on drilling needs to include the differences between drilling an oil well and drilling a gas well. This is not discussed in the Project Description and there is a significant differences from drilling to completion.
	Cathy Purves, Trout Unlimited	The Project Description does not offer any supportive evidence as to why year-round drilling in sensitive and critical wildlife habitat is appropriate. In the original Scoping process in August 2009, documents submitted to BLM from one of the operators expected to participate in the Project Plans included a request for year-round drilling. That letter from ExxonMobil (ExxonMobil Production letter to Lauren McKeever, dated May 29, 2009 re:LaBarge Platform EIS, Tip Top/Hogsback Units) requested BLM approval for year-round drilling for up to 15 years. In this loosely called “plan” offered by ExxonMobil, the company describes its development strategy resting on two major assumptions: 1) BLM will approve year-round construction and drilling, and 2) future wells will be drilled as reservoir-specific horizontal wells ***which can later be recompleted, redrilled, or sidetracked in the vertical wellbore for shallower objectives*** (emphasis added). The letter then proceeds to contend (without proof) that year-round construction and pad drilling is “very effective for reducing wildlife disturbance” and using horizontal drilling techniques will expedite the efficiency and do less damage to wildlife and its habitat. The italicized bolded portion of ExxonMobil’s number 2 assumption is important because ExxonMobil is saying that after the horizontal drilling exhausts the reservoir, they will then move on to the more invasive and acreage intensive vertical wellbore operations (estimated in this plan at 10 to 5 acre spacing). Thus, there is nothing gained by the approval of year-round drilling if it continues for 40-60 years (based on reservoir life and new well drilling technology) or longer.
	Cathy Purves, Trout Unlimited	Pipe all produced water within the Project Area. Produced water and condensates should be piped out using liquid gathering systems (LGS) as they are doing in the Pinedale Anticline Project Area (PAPA). The use of LGS has significantly decreased truck traffic, air pollution, and water use, according to Shell, Inc. in a presentation to the Pinedale Anticline Working Group (PAWG) on February 25, 2010. More than 1.2 million barrels of water have been gathered using the LGS in the Anticline and to date, more than 60% of Shell’s produced water is being gathered by a LGS (by September 2010 it is expected that 95% of the produced water will be gathered by LGS).
	Cooperating Agency Meeting with Lincoln County	Question about what type of drilling rigs will be used on the project area. This has not yet been determined.

Category	Commenter	Comment Text
Field Operations		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that the EIS will need to carefully state BLM authority for allowance for discharge from facilities. DEQ is required to issue discharge permits if the planned/existing facility meets their criteria, but BLM can only limit the construction of facilities, especially if construction/operation occurs on private or state lands. The EIS should include a statement of such limitations if construction occurs on BLM lands.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	In the EIS, can potentially state that each drilling plan needs to meet DEQ requirements prior to authorizing surface occupancy for individual wells.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that for the proximity of activities to water supply wells, Pinedale operators thought the 350' setback was only associated with water supply. The setback was actually for any potable water as defined by TDS (wells with TDS <10,000 mg/L). WOGCC the felt need to clarify this definition with operators, so that any wells in the setback area will need to be either plugged and abandoned or built to new standards (cement casing, bentonite seal, more sturdy casing materials). Would like to clarify that these regulations exist in EIS.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Request that EIS lists process, and notes requirements for well drilling, and mention how split estate issues differ (need landowner authorization for surface occupancy). BMP used to encourage clean water well construction practices, while including discussion on how it's linked.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	DEQ has draft document of sanitary drilling practices.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The project description needs to state the number of conventional (oil) wells vs. the number of gas wells, since this estimate affects the estimate of overall disturbance (oil wells are on closer spacings and require different size pads than gas, pumping would be different for different types of wells). Also, need to define the anticipated number of multiple completions as well as projected well density (currently the well distributions are based on 10-acre centers). Currently in the project area, gas wells are the bulk of existing wells (current wells include 1300 gas, 500 oil wells). The project description should determine if future estimates will be keeping to this ratio for development or if there are likely to be a smaller number of oil wells relative to gas (the current ratio is approximately 1 oil to 3 gas wells). Oil wells in the area are not good producers, so a higher proportion of the new wells may be gas. Currently, the oil wells are primarily around LaBarge. In the Eisenhower field area, old, previously oil wells are being redrilled. Based on WOGCC data, wells generally will be on 40-acre spacings. Shallower wells are likely to be verticals; deeper wells may be horizontal drills. Currently estimate that the area may end up with 2 new wells per section.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	When looking into updated water samples from producers, it could be good to recognize that practices for drilling oil or gas wells have changed over time, and have been improved to protect groundwater. Also state that the intent of updated sampling is not to identify problems due to past practices, but to establish which practices are effective and ineffective, and then move towards best practices.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Based on experience in Pinedale, there is some confusion with operators on requirements for spill and release reporting. Operators don't seem to understand/acknowledge that BLM and the State of Wyoming both have requirements for spill/release reporting (slightly different reporting requirements). It might be useful to note in the EIS that both entities have reporting and corrective action requirements and processes that will need to be followed in the event of a spill. It would be good to define what needs to be reported, impacts, etc. for each reporting system.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	One emerging issue in the public arena is hydraulic fracturing. There should be some discussion or consideration of methods for disposal of flowback fluid after fracturing. The concern is where the fluids go. Hydraulic fracturing fluids may be less innocuous than drilling muds, but they can include different chemicals. If these fluids are or should be dealt with differently from drilling muds, there may need to be a discussion in the EIS on how these fluids are managed or disposed of. Some fluids can go to injection wells or reserve pits, but overall, disposal is not generally addressed. There should be some discussion between WOGCC and BLM to determine if they are dealt with appropriately. There seems to be a public concern that fluids are source of contamination.

Category	Commenter	Comment Text
Field Operations		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Issues related to poor drilling practices include a lack of backflow controls (seen in Pinedale) causing high hydrocarbons in industrial water supplies. Haulers sometimes connect directly to wells causing back siphoning that pulls fluids from the water haul truck or from the pit into the associated aquifer. SEO has been requiring backflow prevention devices in Pinedale to haulers associated with new development. Pinedale ROD for the SEIS may have mentioned the need for these backflow controls, and required them as a BMP for new wells. The requirement did not necessarily apply to existing wells. This BMP is required for BLM, but may need to require updating to include existing water wells.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that permits restrict commercial disposal sites by volume. As long as proposed disposal amounts are within that limit, there is no new/connected action. In the EIS document, BLM can identify which commercial sites are likely to be used (also helps with transportation plan) to represent where water is going. If sites are not permitted properly, or if sites do not have projected capacity, then development of newer facilities would be a connected action. Do want to make sure sufficient capacity exists to deal with projected wastewater. If not available, are there other alternative methods/storage system. Keep in mind that additional disposal sites would take time to develop and permit.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Action here would be to require project proponents to estimate volumes for water to be disposed of, and identify approved disposal method(s) and site(s) as part of the proposed action. Then compare permits for the sites to see if they will have enough capacity to meet the estimated project needs. If new or additional sites need to be added, these could be treated as connected actions. Air quality impacts from truck traffic needs to be included in EIS.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Wells in the northeast area (area F on current map) are more exploratory. In that area, the description says there are 58 federal wells – the project description needs to say if this is the actual well count, or if there are there more wells with other surface ownership. The Hogsback and Tip Top (leases) are owned by Exxon. There are fewer wells there than EOG has. Area E will likely be infill, with the addition of gas wells.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that there is not as much opportunity for multiple completions in the LaBarge area as there is in Pinedale.
	David Bouquet, Exxon Mobil Production	The shaded row in the table below shows potential surface disturbance associated with the RFD. Net disturbance will be about 68 acres from new drilling, which is further reduced to 29 acres after soon-to-be depleted wells are plugged, abandoned, and the surface reclaimed. EM plans to build nine multi-well pads which will be partially reclaimed after wells are placed on production. Minor modifications to existing disturbed areas will be needed to make them suitable for 178 additional horizontal wells and other facility sites. Disturbance for roads are not identified, however, it is expected that existing roads will be used whenever possible. Flowline disturbances will be reclaimed 100% after installation. [Note: The following text was inserted as a table in the original comment letter. This first section of information was the shaded row.] EMPC Development Plan , All horizontal wells from new and existing pads # of New Wells , 214 # of new Drillpads (4 wells ea) , 9 Initial Disturbance (10 acres per pad) , 90 Re-use existing sites (4 new acres per pad) , 180 All pads 75% Interim Reclamation (acres) , 203 Net new build Disturbance (acres) , 68 P&A and reclaim depleted wells (1 acre) , 39 Life of project disturbance (acres) , 29 [Note: The following text was inserted as a table in the original comment letter.] For comparison only--all new pads, 1 well per pad, 3.75 acres/pad Traditional Development Strategies, All horizontal wells # of New Wells , 214 # of new Drillpads (1 well per pad) , 214 Initial Disturbance (3.75 acres per pad) , 803 Re-use existing sites (4 new acres per pad) , 0 All pads 75% Interim Reclamation (acres) , 602 Net new build Disturbance (acres) , 201 P&A and reclaim depleted wells (1 acre) , 39 Life of project disturbance (acres) , 162 Traditional Development Strategies, All vertical wells (assumes 80 acres spacing) # of New Wells , 714 # of new Drillpads (1 well per pad) , 714 Initial Disturbance (3.75 acres per pad) , 2678 Re-use existing sites (4 new acres per pad) , 0 All pads 75% Interim Reclamation (acres) , 2009 Net new build Disturbance (acres) , 670 P&A and reclaim depleted wells (1 acre) , 39 Life of project disturbance (acres) , 631 Two other approaches, with one well per pad for horizontal (162 acres) and vertical wells (631 acres), are shown above for comparison purposes. As before, existing roads will be used whenever possible and flowlines will be 100% reclaimed.
	David Bouquet, Exxon Mobil Production	The technical, operational and economic success of the proposed RFD is dependent on several conditions. They include year round drilling, flexibility to adapt to changing business conditions, and application of science based mitigation measures that address specific concerns that are identified at onsites.
	Dustin Child	Directional drilling and a Liquid Gathering System should be required of the developers during crucial winter months.

Category	Commenter	Comment Text
Field Operations		
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	After having 27 years, 8 experience in this area, I have several concerns. The first would be the need to have multiple wells drilled off the same pad using techniques such as directional drilling. This would greatly reduce the disturbance of the land.
	Jenny & Gary Amerine, Greys River Trophies	Drilling activities should be phased.
	John Emmerich, Wyoming Game and Fish Department	Prohibit shift changes and minimize vehicle travel between dawn (6-8 a.m.) and dusk (4-6 p.m.) to prevent harassment and collisions with wintering wildlife.
	John Emmerich, Wyoming Game and Fish Department	Off-road travel shall be avoided to prevent habitat damage.
	John Emmerich, Wyoming Game and Fish Department	We recommend mandatory reprimand or dismissal for employees convicted of unlawful take (hunt, pursue, catch, capture, shoot, fish, seine, trap, kill or possess, or attempt to hunt, pursue, catch, capture, shoot, fish seine, trap, kill or possess) of wildlife while employed or contracted by the company or on company property.
	John Emmerich, Wyoming Game and Fish Department	Oil and gas companies should utilize satellite or other aerial imagery to digitally locate the existing infrastructure, including well pads, roads, and pipelines, and determine the most suitable locations for new surface disturbance.
	John Emmerich, Wyoming Game and Fish Department	All compressor engines/exhaust stacks should be adequately muffled, to reduce noise levels to 49dBA; 10 dBA above background noise at the fenced perimeter of the production plant site to prevent disturbance to wildlife.
	John Emmerich, Wyoming Game and Fish Department	Wildlife inventories and monitoring should be conducted by the proponents.
	John Emmerich, Wyoming Game and Fish Department	Powerlines and conductors should be constructed in accordance with raptor-safe design criteria.
	John Emmerich, Wyoming Game and Fish Department	We encourage the project proponents to provide information to their employees and contractors about wildlife laws and regulations, and about the sensitivity of wildlife to disturbance.
	John Emmerich, Wyoming Game and Fish Department	Garbage disposal should be strictly monitored and open pits or landfills prohibited to minimize bear/human conflicts. Garbage containers shall be bear-proof.
	John Emmerich, Wyoming Game and Fish Department	Project proponents should comply with Federal wildlife laws and regulations to eliminate/minimize potential impacts to endangered, threatened, proposed, or protected species, and their habitat (i.e. Migratory Bird Treaty Act, Golden Eagle/Bald Eagle Act) determined to be present through on site.
	John Emmerich, Wyoming Game and Fish Department	All fluids generated during drilling and production activities should be transported away from the site via pipelines. Fluid transportation via pipelines will reduce the volume of truck traffic in crucial wildlife habitats during the winter and spring periods. Consequently, a reduction in haul truck traffic will result in fewer wildlife/vehicle collisions within the Platform Infill Project Area.
	John Emmerich, Wyoming Game and Fish Department	Limit routine visits to well sites on crucial winter range to times when big game are typically bedded (i.e., mid-day), to reduce disturbance and stress on wildlife. Use of remote sensing technology is encouraged to reduce daily/weekly truck trips.
	John Emmerich, Wyoming Game and Fish Department	All oil drilling operations and related equipment should be placed within adequate dikes to protect against possible spills.
	John Emmerich, Wyoming Game and Fish Department	Dogs (excluding seeing-eye dogs) shall be prohibited at work site.
	John Emmerich, Wyoming Game and Fish Department	Winter road maintenance must include blading turnouts on both uphill and downhill sides of the road at one-half to one-mile intervals and at known game crossings to allow wildlife escape routes.
	John Emmerich, Wyoming Game and Fish Department	Equipment should be serviced and fueled away from streams and riparian areas. These areas should be located at least 500 feet from riparian habitats. Equipment staging areas should be at least 500 feet from riparian areas.

Category	Commenter	Comment Text
Field Operations		
	John Emmerich, Wyoming Game and Fish Department	Restrict snow plowing operations where possible.
	John Emmerich, Wyoming Game and Fish Department	Field Developmental Directional Drilling/Well Spacing. All standard practices applied to surface-disturbance activities should be adhered to as outlined in the PRMP. In general, the criteria identified in the PRMP governing well pads and facilities, pipelines and communication lines, air quality protection measures, and reclamation should be adhered to in their entirety.
	John Emmerich, Wyoming Game and Fish Department	Recommend bussing of work crews during shift changes to reduce vehicle disturbance to wildlife.
	John Emmerich, Wyoming Game and Fish Department	Restrict routine maintenance flaring operations from November 15 to April 30 to reduce disturbance to wintering big game.
	John Emmerich, Wyoming Game and Fish Department	No possession of firearms by employees or contractors on, to, or from work site.
	John Emmerich, Wyoming Game and Fish Department	Year-round Drilling. We do not support yearlong drilling. We believe the activity associated with active drilling rigs, and the associated human disturbance on the well sites, will result in elevated stress and mortality to wildlife that spends the winter within the Infill project area.
	John Emmerich, Wyoming Game and Fish Department	Specifically, all efforts associated with the development of this oil and gas field should focus on minimizing the number of pad locations, implementing directional drilling with multiple wells from a single pad, and maintaining well pad spacing at an average of no more than three pads per section (square mile). The construction of pipelines, powerlines, and production and ancillary facilities should be closely coordinated with BLM and WGFD personnel in order to insure that all efforts are taken to avoid impacts to crucial wildlife habitats.
	John Emmerich, Wyoming Game and Fish Department	A spill prevention control and countermeasure plan should be fully developed and approved before drilling begins.
	John Emmerich, Wyoming Game and Fish Department	Restrict motorized access to established roads.
	Jonathan Ratner, Western Watersheds Project Wyoming Office	Only allow directional drilling. No new pads no new roads.
	Jonathan Ratner, Western Watersheds Project Wyoming Office	Phased development – finish nuking PAPA and Jonah and when those fields are exhausted then allow them to finish destroying LaBarge.
	Joy Bannon, Wyoming Wildlife Federation	Directional drilling and a Liquid Gathering System should be required of the developers.
	Kent Connelly, Coalition of Local Governments	The LaBarge Project Scoping Notice provides that produced water from gas wells would be stored in a tank on the well pad and transported by truck to an approved disposal site. Vehicle traffic would be reduced by having large enough tanks to enable emptying a water storage tank approximately once every 3 to 6 months for long-term well operations. In addition, produced water and oil from the majority of oil wells would be transported by pipeline to existing central facilities and trucked from the central facility to an approved disposal. A limited number of individual oil wells may require on-site facilities, in which case, the water would then be trucked to disposal from the site and the oil would be trucked to sales.
	Kent Connelly, Coalition of Local Governments	In many instances, BLM requires project proponents to bury pipelines on the theory that it reduces visual impacts. However, it is the CLG's experience that buried pipelines have their own, often greater, impacts due to the surface disturbance, and the visual impacts that persist for decades. Pipelines are a notorious source of noxious and invasive weed infestations. Thus, if technically feasible, the proponent should be required to construct the pipeline above ground or if small enough, to rip the pipeline in, to reduce surface disturbance and the related adverse impacts.

Category	Commenter	Comment Text
Field Operations		
	Kent Connelly, Coalition of Local Governments	Because EOG proposes to drill 96 percent of the wells vertically and 54 percent of horizontally on new pads, the EIS must fully address the impacts of new well pad construction and demonstrate that it conforms to the 2008 Pinedale RMP. This means that BLM must require that disturbance of vegetation is kept to a minimum by using previously disturbed areas and existing easements as well as limiting the size of equipment/materials storage yards and staging areas. Pinedale RMP at App. A3-4. CLG supports limiting the number of vertical wells in order to decrease the number of new well pads, while preserving production. Such a limitation would reduce surface disturbance for the entire project by minimizing pad construction, pipeline construction, and transportation needs.
	Kent Connelly, Coalition of Local Governments	The EIS needs to include a detailed discussion of exporting and possible treatment of produced water. BLM, for example, must detail the source and distance of the water to be trucked both to and from the drilling sites. The EIS should also discuss the alternative of allowing the water to be evaporated in the field and the reasons that this option is not considered. Piping of produced liquids to centralized tank batteries offsite would also reduce traffic to individual wells.
	Kent Connelly, Coalition of Local Governments	If there are any requirements imposed for directional and horizontal drilling, then the EIS must disclose and analyze the feasibility of such techniques within the project area.
	Kent Connelly, Coalition of Local Governments	Because the Operators propose to drill up to 463 new well pads, the EIS must fully address the impacts of new well pad construction and demonstrate that it conforms to the 2008 Pinedale RMP.
	Kent Connelly, Coalition of Local Governments	Finally, the Operators have stated they would avoid construction in the 100-year floodplain of the Green River, unless it can be demonstrated on a case-by-case basis that there is no physically practical alternative. BLM and the Operators should clarify that tank batteries and associated production facilities will be placed outside of the floodplain, and that any well heads within floodplains will be hardened.
	Scott Hicks, USFWS	Reserve pits - Closed loop drilling should be used in all drilling operations as reserve pits can contaminate soil, groundwater, and surface water with metals and hydrocarbons if not managed and closed properly. As reserve pit fluids evaporate, water-soluble metals, salts, and other chemicals become concentrated. Precipitation, changes in shallow groundwater levels, and flooding can mobilize these contaminants into adjacent soils and groundwater. Liners most often do not adequately seal the drilling wastes, especially if they torn. Beal *et al*. (1987) documented the migration of leachate 400 feet from reserve pits buried in 1959 in north-central North Dakota and groundwater contamination 50 feet below the buried reserve pits. Caustic soda, rig wash, diesel fuel, waste oil from machinery, and other refuse could be placed in reserve pits either deliberately or inadvertently. Reis (1996) states that. "improper reserve pit management practices have created sources of benzene, lead, arsenic, and fluoride, even when these contaminants were not detected or were not present in the drilling mud system." References Beal, W.A., E.C. Murphy and A.E. Kehew. 1987. Migration of contaminants from buried oil-and-gas drilling fluids within glacial sediments of north-central North Dakota. Report of Investigation No. 86. North Dakota Geological Survey. Grand Forks, ND. 43 pp. Reis, J.C. 1996. Environmental control in petroleum engineering. Gulf Publishing Co., Houston, Texas. p. 35.
	Scott Hicks, USFWS	Amount of formation water produced and its disposal – The scoping notice states that produced water from gas wells would be stored in a tank on the well pad and transported by truck to an approved disposal site. The Bureau should assess the amount of formation water produced along the natural gas or crude oil and determine if the existing commercial oilfield wastewater disposal facility (COWDF) located in the project area will be able to accommodate the additional produced water, the bureau should assess the impacts of the expansion of existing COWDFs or the construction and operation of a new COWDF for produced water disposal. COWDFs using large evaporation ponds for wastewater disposal can pose a risk to migratory birds if the ponds contain oil, sheens, other hydrocarbons, surfactants, or other well stimulation chemicals.
	Stephanie Kessler, The Wilderness Society	Regarding the proposal for year round drilling, especially as a means for limiting impacts to wildlife - we are skeptical that this is based on sound reasoning for this area. The drilling plan as described for this project is not similar to the Anticline. There is no concurrent proposal for phased, spatial and temporal development which supposedly "gets in and gets out" so as to make winter drilling a limited impact in one area, leaving other areas as refuge for the animals. BLM should reject this proposal and require strict adherence to winter stipulations for big game and other wildlife.

Category	Commenter	Comment Text
Field Operations		
	Stephanie Kessler, The Wilderness Society	It is not clear in the scoping document how many wells will be on new pads (only percentage of wells are mentioned per vertical and horizontal, but the numbers in those categories are not stated), although 454 new pads are identified. This seems a very high number of new pads for only 604 new wells by EOG, indicating that very little directional drilling with multiple wells per pad will occur. Also, this seems to add a great deal of new pads to an area with hundreds of existing pads. The BLM should look at an alternative that represents the least damaging footprint of further environmental damage, and build this alternative from the scenario of requiring new wells to be sited on current pads, with the use of more directional drilling and multiple wells per pad, and the near exclusive use of the current road system. Concentrated drilling in this fashion, such as in play in the Anticline - is touted as the best format for wildlife protection and limiting habitat footprint. Therefore, the BLM should require this here as well.
	Stephanie Kessler, The Wilderness Society	The operators propose to use natural gas and/or solar for equipment on site. This information should be expanded to clarify what kind of drilling rig engines will be utilized. The BLM should require a certain level of engine performance for these to ensure compliance with emission limits. Also, if electrification is required with extensive new infrastructure, the analysis should indicate what additional costs this will add to the local rate-payers.
Health/Safety		
	Stephanie Kessler, The Wilderness Society	We request that a true Health Impact Assessment (HIA) be conducted as part of the NEPA requirement to assess impacts to public health. An HIA is not the same as a risk assessment for one medium (such as air), but is a larger look at the cumulative affects of impacts through air, water, and socio-economic & community affects. We reference BLM to the HIA section at the World Health Organization website at http://www.who.int/hia/en/and also to the information on HIAs on the website of the us Centers for Disease Control at http://www.cdc.gov/healthyplaces/hia.htm.
	Todd Parfitt, DEQ	Spill Reporting. Chapter 4 of the DEQ Water Quality Rules and Regulations requires that tile WQD be notified of spills or releases of chemicals and petroleum products. The EIS should reiterate this and explain how soils, groundwater and surface water impacted by spills, leaks and releases of chemicals, petroleum products and produced water will be restored.
Leasing		
	Bruce Pendery, Wyoming Outdoor Council	At least two provisions in the Federal Land Policy and Management Act (FLPMA) and the Mineral Leasing Act reinforce the BLM's obligation to minimize environmental impacts. The well known prohibition on authorizing actions that would cause unnecessary or undue degradation of the public lands reinforces the need to minimize environmental impacts. 43 U.S.C. § 1732(b). In addition, the Mineral Leasing Act provides that BLM shall regulate oil and gas surface-disturbing activities and shall determine actions "required in the interest of conservation of surface resources." 30 U.S.C. § 226(g). While neither of these requirements may specifically require minimization of impacts they support this need. "Undue" means "exceeding what is appropriate or normal; excessive." The AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1878, (4TH ed.). Degradation means the act of degrading and degrading means tending or intended to degrade, which takes one to the definition of "degrade," which among other things means "[t]o reduce in worth or value." *Id.* At 478. Thus, under FLPMA the prohibition on causing undue degradation serves as a prohibition on excessive actions that reduce the value or worth of the resource of concern. Or, as recognized by the court in *Mineral Policy Center v. Norton,* 292 F.Supp.2d30, 42 (D.D.C. 2003), undue degradation represents "excessive" impact or actions that "harm" the public lands. The BLM must ensure in its approval of the LaBarge Platform Project that this standard is met. The word "conservation" means, among other things," "[t]he protection, preservation, management, or restoration of wildlife and natural resources such as forests, soil, and water." The AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 391 (4TH ed.). Again, this reinforces and supports the need to minimize environmental impacts in order to meet the Mineral Leasing Act requirement to regulate oil and gas development "in the interest of conservation of surface resources." In addition to these provisions, the definition of "multiple use" in FLPMA also reinforces the need to minimize impacts. Among other thing, managing for multiple uses requires the BLM to engage in "harmonious and coordinated management" that does not cause "permanent impairment of the productivity of the land." 43 U.S.C. § 1702©.

Category	Commenter	Comment Text
Leasing		
	Eric Dille, EOG Resources	The Alternatives Analyzed in the LBP Project EIS Must be Consistent with EOG's Existing Lease Rights The alternatives analyzed in the LBP Project EIS may not affect EOG's ability to access minerals under existing leases. Once the BLM issues leases, it cannot preclude development or impose additional lease stipulations. An oil and gas lease is a contract between the federal government and the lessee and cannot be unilaterally modified. See Mobil Oil Exploration & Prod Southeast, Inc. v. United States, 530 U.S. 604, 620 (2000) (recognizing that lease contracts under Outer Continental Shelf Lands Act give lessees the right to explore for and develop oil and gas); Oxy USA, Inc. v. Babbitt, 268 F.3d 1001, 1006-7 (10th Cir. 2001) (noting that the Tenth Circuit has long held that federal oil and gas leases are contracts). EOG has the right to develop its leasehold, and the alternatives analyzed in the LBP Project EIS must be consistent with these valid existing rights. See Pinedale RMP, pg. 2-19 ("Existing oil and gas or other mineral lease rights will be honored. When an oil and gas lease is issued, it constitutes a valid existing right; BLM cannot unilaterally change the terms and conditions of the lease."). Although BLM may have some authority to impose site-specific conditions of approval (COAs) on operations, such COAs must be consistent with the leaseholder's right to develop the lease. See Pinedale RMP, pg. 2-19
	Kent Connelly, Coalition of Local Governments	At the same time, drilling restrictions, such as caps on surface disturbance or requirements for non-traditional drilling, must meet the geological characteristics of the field and the lease terms. This is a mature field, where drilling is defined by existing units and lease terms. BLM lacks the authority to change the lease terms.
Livestock Grazing/Range Management		
	Cooperating Agency Meeting with Lincoln County	Concerned about invasive weeds, in particular halogeton because it is poisonous to livestock. When well pads are not reclaimed appropriately and weeds not controlled, weed species invade along roadways in the county.
	Cooperating Agency Meeting with Sublette County and Others	Vegetation use for livestock is similar to that for wildlife. Counties want to be part of the discussion on mitigation. Work to have reclamation benefit to wildlife and livestock grazing.
	Cooperating Agency Meeting with Sublette County and Others	The EIS should include something about improving the quality of the rangeland.
	Cooperating Agency Meeting with Sublette County and Others	The county is concerned about the level and intensity of the development and the impacts to livestock grazing in the area. The county conservation district should be involved in the process. On the NPL project, the county sponsored a meeting between permittees, BLM, and the operators in order to develop mitigation and planning. They could do a similar thing for this project once more details are known. (e.g. set up a fund in order to address livestock/vehicle collisions.)
	Cooperating Agency Meeting with Sublette County and Others	If impacts trigger an opportunity for offsite mitigation, would like to see grazing considered as part of that discussion. Conservation leases (on private land).
	Cooperating Agency Meeting with Sublette County and Others	Concerned that impacts to sage grouse from energy development could have a spillover effects for grazing.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	A landscape system should work well with rangeland health work.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	It may be useful to inventory reclamation successes and also show current disturbances in the EIS, including range improvements, stock ponds, etc. Overall, try to identify the cause of existing issues.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Agree with the landscape/rangeland restoration approach. There are issues associated with Oil and Gas development as well as grazing.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	BLM should build in flexibility based on science for livestock grazing as much as possible.

Category	Commenter	Comment Text
Livestock Grazing/Range Management		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There may be fencing issues associated with deer/grouse. Are potential fences wildlife friendly? Generally fencing meets wildlife-friendly standard, however, the project area has not yet had a fencing inventory done. As allotments are reevaluated, fencing may change, and would likely increase. The Upper Green River Valley Land Trust has been running the fence replacement project.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The initial decision on the EA [WY-100-EA09-20 Grazing EA] was remanded back, and there may be changes to some grazing/management plans - landscape scale planning effort. There will be a new EA in 2011.
	Dan Budd, Budd & Sons Land Co.	Concerned about well spacing and how to coordinate with grazing. Concerned about what will occur if the sage chicken is listed how grazing and other uses will be affected.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	I feel that LaBarge and Sublette County can remain an area with very valuable and productive resources if we all work together and take responsibility.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	Many times gates are left open or gates close improperly and the cattle are able to go into another pasture and the rancher has to go straighten it out.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	Cattle guards have to be mounted properly. If they are not maintained, the cattle cross them easily or they may get a foot caught and a leg broken have to be destroyed. These cattle guards need to be in good shape by turnout time on the allotment.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	The need for adequate fencing to keep cattle from searching for water on drilling and production locations. Over the years I have had at least 12 cows consume water on the location and die. I have been compensated for this loss but it is still a loss.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	The Sims family has lived in the LaBarge area for 33 years and has run cattle on the North LaBarge Allotment since 1983. I am very familiar with the area. I believe in the concept of multiple use, particularly oil and gas, livestock grazing, and a pristine habitat for many of Wyoming's wildlife. We should all work together to enhance the valuable resources we have in this area. It is very important to have open communication with all these interests and the BLM.
	Jason Fearneyhough, Wyoming Department of Agriculture	It is vital PFO evaluate all resources at the same level to ensure they are managed cumulatively. For example, the Project must include a travel management plan relating to livestock grazing operations and adjacent gas field development operations. More importantly, the Project needs to look outside the PA and make sure it considers adjacent activities in this planning effort. With this in mind, management prescriptions in the analysis must reflect multiple use resource principles. Congressional mandates, federal statutes, and implementing regulations call for multiple uses on BLM administered lands. WDA particularly believes the Congressional policy expressed in the Federal Land Policy and Management Act of 1976 (FLPMA) regarding livestock grazing, needs to be specifically noted in the environmental document. FLIMA Sec. l02(8) states *"The Congress declares that it is the policy of the United States that . . . the public lands be managed in a manner . . . that will provide food and habitat for fish and wildlife and domestic animals. . ."* Many in the public are unaware of this Congressional policy and do not understand how critical the utilization of these lands are to livestock grazing, permittees, local communities, the continued health of the resource and the State of Wyoming.

Category	Commenter	Comment Text
Livestock Grazing/Range Management		
	Jason Fearneyhough, Wyoming Department of Agriculture	The WDA would encourage the NEPA analysis include the socio and economic importance livestock grazing and ranching has on the local economy, but also to the protection of open space and wildlife habitats as referenced in Ranching in the Rockies, Threats and Signs of Hope (Yarbrough et al. 2006). Grazing on public lands is a vital economic value to agricultural producers and to local communities. The PFQ needs to include impacts on this economic activity in the analysis. We urge PFO officials coordinate with the University of Wyoming - College of Agriculture, Department of Agriculture and Applied Economics, who conducted several studies showing how federal policies impact agriculture throughout the state. The studies include the importance of Animal Unit Months, the significance of input and output of state agriculture, and the costs and revenues to counties of agriculture compared to development. Changes affecting the continuation of livestock grazing and other agricultural operations within the planning area and the economic impacts upon agriculture must be included in the analysis. We urge the PFO to base its decisions on science, long-term monitoring data and real data collected in the field. Permittees possess irreplaceable long-term, on-the-ground knowledge that should be utilized. Livestock grazing is a resource management tool currently used to achieve desired environmental objectives in the PA, including obtaining positive effects upon food and habitat for wildlife and livestock. The EIS must include (1) the positive effects livestock grazing has upon the environment. For example, using livestock to improve elk forage (Anderson and Scherzinger 1975), bird habitat (Derner et al. 2009), and at other natural resource objectives (Davies et al1990, Severson 1990), and (2) how livestock grazing assists in achieving environmental objectives and objectives set forth in the Resource Management Plan, such as how livestock grazing can decrease excessive litter accumulation and thus increase plant diversity and species richness (Manier and Hobbs 2007). Producers are particularly aware of how impacts will affect rangeland health, habitat and forage. They understand it is in their best interest to continue to serve as stewards of rangelands in the project area and can offer recommendations which are both environmentally and economically sound. *(Footnotes)* Yarbrough, A., J. Kapela, and C. O'Brady. 2006. Ranching in the Rockies, Threats and Signs of Hope. The 2006 Colorado College State of the Rockies Report Card. 6 pages. htttp:/www.coloradocollege.edu/Stateofthe Rockies/06ReportCard/21-26%20in%20the%20Rockies.pdf. Anderson, E. W. and R. J. Scherzinger. 1975. Improving quality of winter forage for elk by cattle grazing. Journal of Range Management. 28:120-125. Derner, J. D., Y. K. Lauenroth, P. Stapp. And D. J. Augustine. 2009. Livestock as ecosystem engineers for grassland bird habitat in the Western Great Plains of North America. Rangeland Ecology and Management. 62:111-118. Davies, K. W., T. J. Svejcar, and J. D. Bates. 2009. Interaction of historical and non-historical disturbances maintains rural plant communities. Ecological Applications. 19:1536-1545. Severson. K.E. 1990. Summary: livestock grazing as a wildlife management tool. In: Can livestock be used as a tool to enhance wildlife habitat. General Technical Report. RM-194 p. 3.-6. U.S. Forest Service, Rocky Mountain Experiment Station. Fort Collins. CO. Manier, D. J. and N.T. Hobbs. 2007. Large herbivores in sagebrush steppe ecosystems: livestock and wild ungulates influence structure and function. Oecologia. 152:739-750.
	Jay & Sandy McGinnis, J.F. Ranch Inc.	By far the greatest liability to the permittees in this allotment is livestock depredation caused by vehicles, particularly heavy trucks, on the Calpet highway. Fencing the entire roadway has been discussed but does not appear to be a viable alternative.
	Jay & Sandy McGinnis, J.F. Ranch Inc.	Another issue I feel needs to be reviewed is the use of electric fencing for reclamation around new locations. It has been our experience that these fences are rarely, if ever, live and consequently cattle, particularly calves, crawl right through them and then can't get out. The fences need to be checked more frequently or another method of fencing should be used.
	Jill Miller, Wyoming Game and Fish Department	Third, the cattle grazing management in N LaBarge specifically is critical to the condition of the wildlife habitat on these winter ranges. I have been working with Amber Robbins on the permit renewal process that will be part of the N LaBarge Landscape Plan. Part of that process will include gathering data that WGFD has on many treatments that have been completed in this area. There are several control and treatment monitoring sites that have trend data over many years. Many of these treatments were part of a mitigation package from the last big round of development. I believe these data sets will be able to provide good info for potential mitigation projects developed in this cycle.
	John Emmerich, Wyoming Game and Fish Department	Any riparian canopy or bank stabilizing vegetation removed as a result of construction activities should be reintroduced and protected from grazing for a minimum of 2 years or until well established.

Category	Commenter	Comment Text
Livestock Grazing/Range Management		
	Jonathan Ratner, Western Watersheds Project Wyoming Office	The area in question has failed 5 of the 6 Rangeland Health Standards. BLM can not permit activities that violate Rangeland Health Standards.
	Kent Connelly, Coalition of Local Governments	As directed in their respective land use plans and policies, for example, the CLG member also strive to protect agricultural land uses and its ranching and farming heritage, as it is a primary foundation of the custom and culture of the affected counties. See e.g., Lincoln County Comprehensive Plan at 3-37 (2005) ("Livestock grazing, the resulting lifestyles and imprint on the landscapes of the west are some of the oldest enduring and economically important cultural and heritage resources in the west, and must be preserved and perpetuated"), 3-41 ("Forage allocated to livestock may not be reduced for allocation to other uses. Current livestock allocation will be maintained"); SWCCD Land and Resource Use Plan and Policy at 51 (2005) ("The production of livestock in Sweetwater County is necessary to the livelihood of the ranching/farming businesses and related industries and it is also vital to the well-being and continued health of natural resources on federal, state and private lands"); SCCD Public Land Use Policies at 16 (2008) ("Management of public lands must maintain and enhance agriculture to retain its contribution to the local economy, customs, cultural and heritage as well as a secure national food supply"), 17 ("The continued viability of livestock operations and the livestock industry should be supported on the federal lands within the District. . . by the proper optimization of animal unit months for Livestock").
	Kent Connelly, Coalition of Local Governments	EOG should also agree to place livestock crossing signs in the project area where appropriate and should agree to coordinate truck traffic with affected grazing permittees and landowners to reduce livestock collisions. EOG should compensate operators for livestock fatalities at replacement cost, as opposed to market cost. EOG personnel should also agree to reduce speeds to a level appropriate for travel within grazing allotments and to respect the times when livestock must be moved.
	Kent Connelly, Coalition of Local Governments	Well pad, pipeline, and road construction, for example, will remove vegetation and these may include sites where livestock grazing permittees and BLM cooperated on vegetation projects which were already implemented to improve forage. Other work may interfere with or compromise livestock water projects and springs. The EIS must also address the fact that fugitive dust from heavy project-related truck traffic could affect livestock forage, water, increase livestock losses, and reduce weight gains. BLM and EOG must agree to work with CLG and affected livestock grazing permittees in developing appropriate measures to mitigate for these impacts.
	Kent Connelly, Coalition of Local Governments	The EIS should identify stock driveways used to move sheep and cattle through the project area and in the vicinity of the project area. It also needs to identify other critical areas, such as sources of water, calving / lambing areas (where applicable), and existing and planned range improvement projects that may be adversely affected. These issues should be addressed in annual planning meetings between EOG and the livestock operators. EOG should designate a liaison to be responsible for communication with affected livestock operators and landowners on a regular basis.
	Kent Connelly, Coalition of Local Governments	The EIS must thoroughly address the direct, indirect, and cumulative impacts on livestock grazing operations affected by the proposed action. The Coalition estimates that 22 allotments and 7681 animal unit months (AUMs) are potentially affected by the proposed action. Moreover, the seasons of use coincide for the most part with the times when energy development can also occur, that is between May and November of each year. See Pinedale RMP, App. 20. Thus, there appears to be significant overlap and, thus, the potential for conflict that needs to be addressed.
	Kent Connelly, Coalition of Local Governments	The EIS also needs to disclose the impacts on existing roads that provide recreation and grazing permit access. A significant number of the roads provide access to grazing allotments and are necessary to maintain structures and manage livestock. Similarly, these other roads provide important recreation access almost year-round. Even if the roads also provide access for this project, they may well need to remain open to meet the access needs of other land users.
	Kent Connelly, Coalition of Local Governments	Furthermore, to the extent that oil and gas operations will prevent achievement of management objectives prescribed in the 2008 Pinedale RMP and the Wyoming Standards for Healthy Rangelands, EOG must be deemed to be the causal factor and assigned responsibility for corrective actions. To mitigate for any temporary loss of AUMs, EOG should agree to support vegetation and forage enhancement to improve range productivity.

Category	Commenter	Comment Text
Mitigation Measures		
	Bill & Martha Underwood	Considering that Wyoming is attributed with providing 45% of the greater grouse habitat and that many surrounding areas are migratory paths for the largest remaining herds of elk and deer, it is imperative that the BLM and those granted leases for resource extraction undertake the most stringent measures to insure minimal if not zero disturbances of the existing habitat and resources.
	Cathy Purves, Trout Unlimited	Moose are a big game species that are on the decline in western Wyoming and impacts to their habitat should be fully evaluated and mitigation options considered.
	Cathy Purves, Trout Unlimited	Please make sure that the Project Plan conforms to the NEPA "*Guidance on Mitigation and Monitoring*" memorandum that is in draft form at this time but will provide substantial guidance by the time this project is approved (see Memorandum on *Draft Guidance for NEPA Mitigation and Monitoring*, February 18, 2010).
	Cathy Purves, Trout Unlimited	Similar to that which is being conducted on the Pinedale Anticline, TU asks that an Annual Planning Meeting be convened at the beginning of each year that addresses the operator's plans, involves public participation, and coordinates the activities that are likely to occur for the year.
	Cathy Purves, Trout Unlimited	Please include an Adaptive Management approach that can be used effectively and requires the public's input.
	Cathy Purves, Trout Unlimited	Fragmentation to wintering grounds, calving areas, migration routes, and summer areas must be evaluated and the least amount of impact should be made. The BLM's RMP mentions several times throughout the document the requirement to minimize impacts. We ask the BLM to hold to this requirement and make sure the operators provide substantial measures for avoiding or minimizing any impacts.
	Cathy Purves, Trout Unlimited	The BLM should implement a Wildlife Mitigation and Monitoring Plan similar to the one used on the Pinedale Anticline.
	Cathy Purves, Trout Unlimited	As development expands over more and more wildlife habitat in this resource area, the BLM should be thinking forward for successful ways to mitigate wildlife impact issues. The Wildlife Matrix identified in the Pinedale Anticline ROD, while not ideal, should be a model from which to include in this project EIS. The use of best available science, land use concerns, and public concerns should also be included in this matrix analysis.
	Cathy Purves, Trout Unlimited	Please incorporate all conservation measures, program activities and mitigation guidelines and standards as described and adopted in the Final RMP ROD, November 2008 (Appendices 1-3). This Project Description contains few if any of the conservation measures and operating standards described in the ROD and these new management measures and standards will affect how this Project Description moves forward.
	Cathy Purves, Trout Unlimited	The last paragraph in this section commits the Operators to various mitigating opportunities. This paragraph (like the entire document for the most part) is the exact same as EOG's 2008 Project Description for the LaBarge Platform. TU requests confirmation that all operators have agreed to participate in all of the mitigation aspects of this Project Area, including new mitigation opportunities that have yet to be identified.
	Cathy Purves, Trout Unlimited	The Project Description lacks any mention of bird protection from reserve pit fluids. Flags have been shown to be worthless (Audubon, 2009) but netting appears successful.
	Cathy Purves, Trout Unlimited	In addition, please incorporate the mitigation standards (including the use of fish-friendly culverts), timing stipulations, and avoidance areas for sensitive fish species.
	Cathy Purves, Trout Unlimited	Use of solar panels should be required. This dated proposal suggests that solar panels may not be feasible, yet panels are becoming standard equipment in gas fields across the Rockies and are being actively used in the Pinedale resource area. TU requests that the BLM require the use of solar panels in an effort to minimize air emissions and comply with EPA and DEQ air quality regulations.
	Cathy Purves, Trout Unlimited	The incorporation of a Rollover System for habitat reclamation must be part of the proponent's plan. The use of such a program is showing success in the Pinedale Anticline and there should be no reason why it cannot be implemented in this project.

Category	Commenter	Comment Text
Mitigation Measures		
	Cathy Purves, Trout Unlimited	As addressed in our September 2009 scoping comments, TU urges the BLM to require wooden or fiber matt systems in sensitive habitat regimes, including riparian and wetland areas. There are demonstrated success stories in the Jonah Field where EnCana applied mats to protect valuable sagebrush steppe habitat. Successful mitigation projects such as this one need to be incorporated into new mitigation plans as a method for protecting these habitats.
	Cathy Purves, Trout Unlimited	Please refer to all of the above mentioned considerations earlier discussed for this section that addresses wildlife and fish habitat, specific species concerns, and mitigation practices.
	Cathy Purves, Trout Unlimited	Please update the reference to the Best Management Practices (BMPs) as identified in this Project Description. The updated 2008 RMP ROD provides similar but more specific details and this should be reflected in the EIS and the BLM's Alternative discussions.
	Claire Moseley, Public Land Advocacy	The scoping notice inappropriately identifies a litany of measures that BLM intends to include on all permits within the project area. Inclusion of these measures as written fails to provide the flexibility required to ensure that the needs of the operators and other resource values are fully met. It is more appropriate for such measures to be identified and analyzed for their efficacy in the EIS. A one-size-fits-all approach is ill advised because many areas have different mitigation requirements.
	Cooperating Agency Meeting with Lincoln County	Lincoln County suggested the strategy of an Overthrust Authority for the Project. In another project this approach was successful in allocating mitigation funds. The Authority can look broadly at impacted communities and allocate funds appropriately.
	Cooperating Agency Meeting with Lincoln County	Because oil and gas wells are not major industrial facilities, these types of projects do not result in funding to local communities from Industrial facility Siting Act fees from the state. As mentioned earlier, a fund should be created upfront and run by an Overthrust Authority to mitigate for impacts to local communities.
	Cooperating Agency Meeting with Lincoln County	The county is opposed to off-site mitigation. Prefer that mitigation be on-site and voluntary. There are already too many elk, don't need wildlife mitigation.
	Cooperating Agency Meeting with Sublette County and Others	If impacts trigger an opportunity for offsite mitigation, would like to see grazing considered as part of that discussion. Conservation leases (on private land).
	Cooperating Agency Meeting with Sublette County and Others	There was a general discussion about raptor nests and installing anti-perching devices on power lines. Concerned about maintaining the current raptor population and not having ravens move in. Mentioned that a predator statement in the EIS from the BLM would be good. Consider raven controls as a mitigation measure in nesting habitat if impacts are anticipated.
	Cooperating Agency Meeting with Sublette County and Others	The County is concerned about the level and intensity of the development and the impacts to livestock grazing in the area. The county conservation district should be involved in the process. On the NPL project, the county sponsored a meeting between permittees, BLM, and the operators in order to develop mitigation and planning. They could do a similar thing for this project once more details are known. (e.g. set up a fund in order to address livestock/vehicle collisions.)
	Cooperating Agency Meeting with Sublette County and Others	The groundwater aspect of the project needs to follow the regional framework – develop a plan on how monitoring will proceed. It is good to have a plan as part of the EIS, because adaptive management is in place right from the start.
	Cooperating Agency Meeting with Sublette County and Others	Vegetation use for livestock is similar to that for wildlife. Counties want to be part of the discussion on mitigation. Work to have reclamation benefit to wildlife and livestock grazing.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The primary concern for riparian areas is roads, especially new roads. If the project is not trucking water, disturbance associated with roads can be less. Therefore, would suggest encouraging the development of pipelines associated with this project, since they will have fewer impacts associated with erosion and air quality, and over time can reduce costs to operator. Also, BLM has a tendency to use large roads where smaller could suffice. Roads should be built to minimum standard necessary. Could also include speed limits so roads can lower standards.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	BLM should build in flexibility based on science for livestock grazing as much as possible.

Category	Commenter	Comment Text
Mitigation Measures		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Need to improve passage for Cutthroat trout and native non-game fish if new culverts are put in. Older culverts need improvements.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There is concern over sediment loads in streams. May need to consider willow planting to reduce sediment loads. Site-specific mitigation could be needed to avoid increasing sedimentation; however, there is no mitigation for conducting work during spawning periods. Other mitigation options would be on a site-specific basis determined on the ground.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There could be an opportunity for some work through a 'no net loss' concept, concurrent with increasing standards associated with plugged and abandoned wells. There are currently approximately 3600 existing wells in the area, and an estimated 1500 that could be plugged and abandoned or brought up to a better standard of reclamation. This could include both gas and oil wells, noting that development of oil pads is dense in some areas.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Enhancements to support fish habitat/populations built into the proposed project. It might be a good area to think about projects for enhancements to habitat.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	A fix as you go scenario would be more efficient in time or money, as well as more likely to occur as far as mitigation. This approach should be in at least one alternative.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	For fisheries, 500 foot buffer for riparian & perennial streams is good; the buffer for 100-year floodplains is also good. The project will need something to control the potential for instream river migrations in order to avoid instream channel effects to native cutthroat trout during spawning and incubation times.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	'No net loss' could be discussed as an alternative, as a way to avoid mitigation issues. Could be achieved through reclamation, or through avoidance of human impacts. Better way to look at could be a „no net loss of habitat functionality'. Earlier reclamation is better since reclamation of older disturbances is more difficult.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The LaBarge area is interesting in that there are some conventional (oil) wells. Most of these wells are working on old equipment, and are not necessarily kept up. One mitigation tool may be to improve the equipment on some of these old sites, both operating and plugged and abandoned sites. Which sites could be improved would need to be determined by a site-specific basis and the locations for improvements be identified by operators. BLM may need to require operator-proposed mitigation.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There may be fencing issues associated with deer/grouse. Are potential fences wildlife friendly? Generally fencing meets wildlife-friendly standard, however, the project area has not yet had a fencing inventory done. As allotments are reevaluated, fencing may change, and would likely increase. The Upper Green River Valley Land Trust has been running the fence replacement project.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Species that will need to be discussed in the EIS include northern leopard frogs [potential for listing] as well as other amphibians and lizards. There are Boreal toad breeding sites and Colorado River Cutthroat trout in the project area. These species will need protection for existing habitat, as well as potential improvements associated with the project. It could be good to address the potential for habitat improvements in the EIS as part of the project. Note that in increase in the number of roads could increase the impacts to amphibians. There are no known sensitive reptiles in the project area.
	David Bouquet, Exxon Mobil Production	In addition, BLM and other state and federal agencies need to facilitate continued development of new technology including consideration of incentives for operators that voluntarily employ mitigation measures that exceed regulatory requirements. PFO's scoping letter identifies a number of environmental protection measures that are of concern as noted below. Text from the scoping letter is italicized and our comments appear in normal text
	David Bouquet, Exxon Mobil Production	*"No new ancillary facilities are required."* Comment: This requirement will constrain industry's ability to develop clean gas resources. BLM should be willing to allow the use of new technology even if it means new ancillary facility sites are necessary. The language should be modified to read "The need for new ancillary facilities will be analyzed on a case by case basis through the NEPA process if such a need is identified in the future."

Category	Commenter	Comment Text
Mitigation Measures		
	David Bouquet, Exxon Mobil Production	*"Most equipment at gas wells would be powered by natural gas and solar panels. Power lines would be needed to operate artificial lift equipment at new oil wells."* Comment: BLM needs to allow the continued use of power lines at current and new locations because it is reliable and the distribution system already exists throughout the Tip Top and Hogsback Units.
	David Bouquet, Exxon Mobil Production	*"A typical well pad in the project area would require surface disturbance of approximately 2 to 5 acres. Surface disturbance acreage would be also required for co-located wells on a pad and new road construction."* Comment: If BLM expects operators to drill multiple wells from one pad, BLM must be reasonable in providing flexibility for operators to expand pad sizes commensurate with their intended usage and consistent with operational and safety requirements. The appropriate pad location and size should be determined through the NEPA process.
	David Bouquet, Exxon Mobil Production	*"Produced water from gas wells would be stored in a tank on the well pad and transported by truck to an approved disposal site. Vehicle traffic would be reduced by having large enough tanks to enable emptying a water storage tank approximately once every 3 to 6 months for long term well operations."* Comment: This condition does not accommodate operator needs for flexibility, variable produced water volumes, or weather conditions. The second sentence should be revised to read, "Vehicle traffic would be reduced by installing larger tanks to facilitate storage, but operators will be allowed to empty water storage tanks whenever necessary for long term well operations."
	David Bouquet, Exxon Mobil Production	*"All operators will comply with the Wyoming Department of Environmental Quality – Air Quality Division (WDEQ-AQD) Interim Policy on demonstration of compliance with WAQSR Chapter 6, Section 2(c)(ii) for sources in Sublette County (issued July 21, 2008), or rules in effect subsequent to the interim policy. New technologies may be implemented after their effectiveness is tested and determined. Necessary air permits to construct, test, and operate facilities will be obtained from the WDEQ-AQD." Also, "All internal combustion equipment will be kept in good working order. Best Available Control Technologies (BACT) will be implemented as required by WDEQ-AQD. "*Comment: ExxonMobil will employ applicable science based BACT if such standards are developed by the primacy agency for Wyoming, which is WDEQ-AQD.
	David Bouquet, Exxon Mobil Production	*"All operators will consider installing surface pipelines where necessary to minimize erosion."* Comment: This condition may be appropriate in areas with identified erosion issues but in other areas, buried pipelines are preferable and should continue to be used consistent with pipeline contents, road use, transportation patterns, and public and employee safety.
	David Bouquet, Exxon Mobil Production	*"All pads will be completely fenced and maintained until reclamation is successful."* Comment: This condition should be modified to read "All pads anticipated to have problems with successful reclamation areas should be fenced and maintained until reclamation is successful."
	David Bouquet, Exxon Mobil Production	*"Produced water and oil from the majority of oil wells would be transported by pipeline to existing central facilities and trucked from the central facility to an approved disposal site. A limited number of individual oil wells may require on-site facilities, in which case the water would then be trucked to disposal from the site and the oil would be trucked to sales."* Comment: ExxonMobil has onsite produced water and condensate storage facilities and the contents are trucked to a central tank battery for measurement and sales. The condition above would require us to re-evaluate our current separation, storage, and transport to sales practices. Instead, ExxonMobil requests the continued use of current production practices, and requests adding " ... transported by pipeline or trucks to existing central facilities … "
	Jason Fearneyhough, Wyoming Department of Agriculture	Mitigation of impacts to vegetation and livestock grazing must be identified. The WDA has attached a list of potential mitigation measures to consider as part of a "tool box" to reduce impacts to rangelands and grazing operations (See attached Potential Mitigation Measures). We strongly encourage the PFO work extremely close with all permittees impacted by the proposed project. This entails incorporating annual meetings to discuss grazing plans and rangeland improvement projects for the upcoming year for the life of the field.

Category	Commenter	Comment Text
Mitigation Measures		
	Jason Fearneyhough, Wyoming Department of Agriculture	Potential Mitigation Measures: Note: These are meant to be ideas to consider or tools in a "tool box" for consideration. • 5% reduction in forage would begin the consideration of mitigation methods to reduce impacts, but a 10% reduction would be considered a significant impact. • Mitigating impacts to grazing permittees and management activities below significance a as determined by permittees, the BLM, and County. • Conducting two annual meetings with grazing permittees to discuss project-specific impacts and required mitigation. Industry would notify affected parties of proposed drilling and maintenance schedules during these meetings. • Throughout the life of the project (LOP), if there are any substantial changes in the POD for the Project Area, additional meetings with grazing permittees would be held. • Grazing permittees would be provided a map showing the location of new well pads and access roads when APDs are filed with the BLM. • Impacts to existing livestock water would be mitigated such that there are no adverse impacts to livestock management, water availability, or water quality. • If project activities cause impacts to wells, springs, or surface water improvements, new water well development may be required to mitigate these impacts. Industry would be responsible for drilling, maintaining, and monitoring new stock water wells and/or improving existing water wells as determined by grazing permittees and the BLMAO. • Industry would construct fencing where necessary in order to mitigate impacts to grazing management. All fences would comply with BLM fence construction regulations. • Water development projects could be used to mitigate impacts and protect the range by distributing livestock. Industry would continue to coordinate with grazing permittees to develop aquifer and water well data. • Protections and mitigation of impacts would occur to sensitive livestock areas (ie. calving grounds, trailing routes, and identified summer and winter grounds). • Industry would treat primary access roads, and heavily used resource roads as necessary during high use periods with dust suppressants (e.g., magnesium chloride), and would water construction sites and well pad access roads as necessary to control fugitive dust during the summer. Industry would control fugitive dust associated with surface disturbing activities with the use of water or mulch during the reclamation phase. • Industry would continue to encourage contractors and employees to obey speed limits and support local law enforcement officials in enforcing speed limits to reduce fugitive dust concerns, as well as for human health and safety reasons. • Industry would monitor noxious weed and invasive non-native species of concern occurrence and implement a noxious weed/non-native species of concern control plan in cooperation with the BLM and County Weed and Pest, to ensure noxious weed and non-native species of concern invasion does not become a problem. • Weed-free certification by county extension agents would be required for grain or straw used for mulching revegetated areas. Gravel and other surfacing materials used for the project would also be certified weed-free. Weed control would be conducted through an approved weed control plan and any supporting Pesticide Use Proposal (PUP) and Pesticide Use Report (PUR). Weed monitoring and reclamation measures would be continued on an annual basis (or as frequently as the BLM determines) throughout the LOP.
	Jay & Sandy McGinnis, J.F. Ranch Inc.	The best solution to the problem would be to establish a mitigation fund to compensate the livestock owners whenever an animal is killed on the road. The livestock owners would simply provide a Wyoming Brand Inspection for proof of ownership receive compensation from the Mitigation Fund for the loss. The value of the animal an easily be determined by contacting any livestock sale bam, such as the Riverton Livestock Commission. I would appreciate your consideration of this concept and I feel it is appropriately addressed a part of this project since there will obviously be an increase in heavy traffic associated with the drilling of all these additional wells.
	Jenny & Gary Amerine, Greys River Trophies	Habitat mitigation efforts should be mandatory for developers.
	Jill Miller, Wyoming Game and Fish Department	First, we will have two reports in this winter that should be able to provide significant incite on the current vegetation conditions. The Moose and Mule Deer Habitat Assessments were two projects that WGFD contracted the Teton Science School to complete in 2009. The reports will include vegetation transects in representative communities, many photo points, many management suggestions, and an extensive GIS geodatabase to go with the written report. The reason for doing these projects was specifically to generate projects (from shrub treatments, cattle grazing management, travel management, conservation easements, weed control, and well beyond.) The field crews were specifically instructed to keep mitigation ideas in mind when going through the area. I believe the report and data should provide a good set of info for this planning document.

Category	Commenter	Comment Text
Mitigation Measures		
	John Emmerich, Wyoming Game and Fish Department	Mule Deer Research: A 3 to 5 year mule deer research project to radio-collar 100 mule deer and monitor mule deer response to the development on the Birch Creek/LaBarge; Hogsback, Rands Butte, and Deer Hill winter range segments of the Infill project area; and Study would be conducted by independent research consultant.
	John Emmerich, Wyoming Game and Fish Department	Habitat Enhancement: Cooperative habitat enhancement work on federal, state, and/or private lands to enhance and restore mule deer winter ranges.
	John Emmerich, Wyoming Game and Fish Department	Additional Wildlife Data Collection - Several species of wildlife currently occupying the proposed project area will need expanded data collection efforts to monitor responses to increased development. These include:
	John Emmerich, Wyoming Game and Fish Department	Additional aerial surveys to document sage-grouse winter ranges and undocumented leks during first three years of the project development.
	John Emmerich, Wyoming Game and Fish Department	The PRMP provides specific guidance on what activities may warrant standard mitigation guidelines used in the EIS development process. The second of these two ways to implement mitigation guidelines is "in the analytical processes of both developing the alternatives and analyzing the impacts of the alternatives." Specifically, mitigation guidelines "are used to develop a baseline for measuring and comparing impacts among the alternatives; to identify other actions and alternatives that should be considered; and to help determine whether more stringent or less stringent mitigations should be considered." In order to comply with PRMP direction, these guidelines (Surface Disturbance Mitigation Guideline and Wildlife Mitigation Guideline) should be subject to an extensive evaluation in cooperation with BLM and WGFD personnel to determine relevance to the proposed development. In addition, we recommend that during the development of the EIS that a "Mitigation Proposals" section be included in the EIS document that proposes and analyzes a series of mitigation actions that could be implemented to offset the impacts of the gas field development on crucial wildlife habitats.
	John Emmerich, Wyoming Game and Fish Department	Use of Appendix B and Appendix C of the WGFD document mentioned above is recommended for developing alternatives and appropriate mitigation.
	John Emmerich, Wyoming Game and Fish Department	Central Production Facilities - We recommend centralized production facilities. Linking multiple wells to a central facility greatly reduces long term surface disturbance.
	John Emmerich, Wyoming Game and Fish Department	Sage-grouse Surveys
	John Emmerich, Wyoming Game and Fish Department	Well Pad Fencing - All fencing should be wildlife friendly, and not restrict wildlife movements to daily and seasonal ranges. In general, we do not support fencing of reclamation sites. One of the purposes of reclamation is to provide forage for wildlife. Fencing should be permitted only if it can be demonstrated that wildlife are preventing successful revegetation. Reclamation fencing should be evaluated on a case by case basis.
	John Emmerich, Wyoming Game and Fish Department	In order to increase the ability of the winter habitat to support mule deer populations into the foreseeable future, a cooperative effort should be developed between oil and gas producers and government agencies. This effort should focus on working to restore the productivity of the habitat, and minimizing future impacts. Therefore, we believe it is essential that during the development of the EIS the energy production companies developing these oil and gas reserves partner with the BLM and WGFD in the recovery and restoration of this segment of the Wyoming Range mule deer herd and its winter habitat.
	John Emmerich, Wyoming Game and Fish Department	Reclamation of Well Pads and Access Roads Requirement - Reclamation is not a "mitigation" measure, but rather a required BLM management action; There should be two types of Interim reclamation. One is reclamation that is needed for the interim when additional disturbance is forecasted for another well in the near future. If no other wells are planned then final-interim reclamation should be implemented. This is necessary since well pads will exist for decades. The site for a pad in production should be reclaimed to the smallest footprint possible to accommodate maintenance and should meet the same reclamation standards as final reclamation for bond release with the exception of final re-contouring.
	Jonathan Ratner, Western Watersheds Project Wyoming Office	$1 billion in off-site mitigation
	Joy Bannon, Wyoming Wildlife Federation	Habitat mitigation efforts should be mandatory for developers. This includes vegetation manipulations for mitigation such as reseeding.

Category	Commenter	Comment Text
Mitigation Measures		
	Joy Bannon, Wyoming Wildlife Federation	Establish a mitigation plan with a threshold matrix that addresses wildlife, wildlife habitat, fisheries, aquatic habitat and stream changes.
	Joy Bannon, Wyoming Wildlife Federation	Provide an environmental compliance plan to enforce monitoring, environmental compliance and remediation on wildlife and fisheries that will be affected by oil and gas development in the project area. If applicable, the environmental compliance plan should be accomplished on a landscape scale to determine management options for wildlife and aquatic species.
	Joy Bannon, Wyoming Wildlife Federation	The BLM should identify all air quality impacts and mitigation criteria on the onset for the project area, even if the BLM isn't able to, under jurisdiction, to implement them. All preventions and remedies that the BLM can implement should be identified, such as electrification of the well field, paced development, voluntary emission offsets from existing sources and energy conservation and efficiency measures. Performance goals and objectives can be established to improve the quality of air and to reduce cumulative impacts that exist.
	Joy Bannon, Wyoming Wildlife Federation	Require the operator and contractors to use the latest technology for non-polluting generators.
	Joy Bannon, Wyoming Wildlife Federation	Identify landowners and other water users who rely on the groundwater resources that will be impacted by the proposed development. Mitigation measures need to also be identified and provided.
	Kent Connelly, Coalition of Local Governments	In mitigating these significant impacts, EOG should agree to coordinate with the respective county road departments and state highway divisions regarding road capacity and traffic levels. EOG should also compensate the Counties for the increased levels of use and damage or wear and tear above normal levels. A Transportation Plan must also be developed in close coordination with the local governments to address conflicts early in the process. The Transportation Plan must be consistent with the county road systems and must provide that all transportation related decisions will be made in close consultation with affected counties, conservation districts, landowners and livestock operators. This is especially important with respect to the control of fugitive dust emissions. BLM should further provide for the option of surfacing roads that will be used for the life of the project to reduce dust and soil erosion.
	Kent Connelly, Coalition of Local Governments	The EIS needs to provide that reclamation will commence as soon as it is determined which lands are not needed for production activities, and that mitigation will be determined and commenced at project initiation, rather than being withheld until some future date.
	Kent Connelly, Coalition of Local Governments	EOG should also agree to place livestock crossing signs in the project area where appropriate and should agree to coordinate truck traffic with affected grazing permittees and landowners to reduce livestock collisions. EOG should compensate operators for livestock fatalities at replacement cost, as opposed to market cost. EOG personnel should also agree to reduce speeds to a level appropriate for travel within grazing allotments and to respect the times when livestock must be moved.
	Kent Connelly, Coalition of Local Governments	The air quality mitigation discussion should also distinguish between particulates and ozone precursors of NOx and VOCs. The EIS must quantify how equipment will reduce NOx and VOC emissions and not contribute to potential exceedances for ozone or other air pollutants.
	Kent Connelly, Coalition of Local Governments	**Sage Grouse** The Operators have committed to the installation of raptor anti-perch devices on all overhead power lines in sage grouse habitat. Revised Project Description at 8.2. The EIS should also recognize that low profile tanks and anti-perching devices on structures within sage grouse buffers have proven effective in minimizing predation of sage grouse and other wildlife.
	Kent Connelly, Coalition of Local Governments	In addressing the potential social and economic effects to the local communities in the EIS, the EIS needs to discuss impacts to local infrastructure, severance taxes and federal mineral royalties. This discussion must describe the statutory allocation of these revenues in Wyoming, particularly the limited amounts that flow to city and counties, with no dedicated funds to assist the local government entities most directly impacted. This is a critical point for CLG members who will incur substantial costs from the proposed project's impacts without sharing directly in the federal royalties.
	Kent Connelly, Coalition of Local Governments	The LaBarge Project Scoping Notice does not identify impacts to recreation as an issue or concern. Under the Pinedale RMP, however, BLM must "maintain or enhance the health and viability of recreation-dependent natural resources and settings within the planning area." 2008 RMP at 2-25. The EIS, therefore, should thoroughly address impacts to recreation and provide for mitigation. BLM and EOG should work with the local cooperating agencies and the public in reducing adverse effects and conflicts.

Category	Commenter	Comment Text
Mitigation Measures		
	Kent Connelly, Coalition of Local Governments	Well pad, pipeline, and road construction, for example, will remove vegetation and these may include sites where livestock grazing permittees and BLM cooperated on vegetation projects which were already implemented to improve forage. Other work may interfere with or compromise livestock water projects and springs. The EIS must also address the fact that fugitive dust from heavy project-related truck traffic could affect livestock forage, water, increase livestock losses, and reduce weight gains. BLM and EOG must agree to work with CLG and affected livestock grazing permittees in developing appropriate measures to mitigate for these impacts.
	Kent Connelly, Coalition of Local Governments	The EIS must analyze such proposals to specifically identify exactly what resource loss needs mitigation and how it is to be mitigated.
	Kent Connelly, Coalition of Local Governments	Compensatory mitigation should also be coordinated with the local governments, because the development of replacement resources will directly affect land uses on and off public lands. Any off-site compensatory mitigation should not result in the loss of private land or interests within the affected counties and that it should address more than a single impact, such as impacts on wildlife habitat. The EIS must analyze such proposals to specifically identify exactly what is being mitigated and the type of projects.
	Kent Connelly, Coalition of Local Governments	If utilized, the need for and methodology of offsite and compensatory mitigation must be fully analyzed and disclosed in the EIS. In such case, habitat leasing on private property should be considered and analyzed as an alternative.
	Kent Connelly, Coalition of Local Governments	Off-site compensatory mitigation supplements onsite mitigation, when mitigation measures and onsite mitigation measures are not sufficient. BLM IM 2008-204. CLG supports the exploration of opportunities for onsite compensatory mitigation before going to offsite mitigation. Onsite or mitigation actions, such as improvement of vegetation and wildlife habitat, will provide alternative habitat to wildlife as they are immediately displaced by drilling. There is a role for offsite mitigation but BLM must exhaust onsite opportunities before considering offsite mitigation. Id.
	Kent Connelly, Coalition of Local Governments	Furthermore, to the extent that oil and gas operations will prevent achievement of management objectives prescribed in the 2008 Pinedale RMP and the Wyoming Standards for Healthy Rangelands, EOG must be deemed to be the causal factor and assigned responsibility for corrective actions. To mitigate for any temporary loss of AUMs, EOG should agree to support vegetation and forage enhancement to improve range productivity.
	Kent Connelly, Coalition of Local Governments	Through the CLG, the local governments coordinate their participation in federal land use plans and projects. These comments identify and evaluate the potential impacts of the proposed action and recommend appropriate mitigation measures to minimize social, economic, and resource impacts. The issues raised in these comments should also be used in designing the alternatives. The following recommendations are in addition to the Mitigation Guidelines and Operating Standards Applied to Surface Disturbing and Disruptive Activities set forth in the 2008 Pinedale Resource Management Plan and Final EIS (RMP), Appendix 3.
	Larry Svoboda, EPA, Region 8	EPA would like to discuss with BLM the air and water quality impact analyses and mitigation measures planned for this EIS. By proactively working together early in the EIS process, we have to be able to assist BLM with the development of an analysis which will adequately address potential air quality and water quality impacts and identify appropriate mitigation measures.
Monitoring		
	Cathy Purves, Trout Unlimited	Water monitoring and sampling must be conducted based on the upstream oil and gas and carbon sequestration projects that are occurring west of the LaBarge Project area.
	Cathy Purves, Trout Unlimited	Surveys for special status species will be conducted on federal lands prior to any approval of project development or any project activity approval, as described in the Final RMP ROD (Section 2.3.16, pages 2-45 through 2-54). Project pre-construction activities must include the submission by operators of baseline vegetation and habitat condition inventories of the area, aquatic and water quality samples of the area (particularly since this area has been an active drilling site since the 1920's), and an air quality monitoring plan as defined by BLM and DEQ. The results of these inventories must be submitted to the BLM in order to assist the operators in their construction plans and development activities.

Category	Commenter	Comment Text
Monitoring		
	Cathy Purves, Trout Unlimited	The BLM should complete a thorough inventory of the project area and its abandoned and existing active wells. This has been a problem in the past, as a recently as August 2009, the BLM was unable to provide a thorough active inventory of gas well activity in the Pinedale resource area. Therefore, before further development occurs (and the scoping document states that there are an "estimated" 2,940 already approved and drilled wells in the area), a current assessment should be completed. The 2,940 figure does not mean there are that many wells that have been drilled—rather, it reflects an estimate of leases for drilling and includes some wells.
	Cathy Purves, Trout Unlimited	Soil surveys for this area need to be updated and completed prior to permitting. Stockpiling topsoil for 40 years or even one year is no longer considered appropriate mitigation or appropriate reclamation science. The BLM should make sure that any soil stockpiling is completed using new standards, and compliance for this should be monitored.
	Cathy Purves, Trout Unlimited	The BLM should implement a Wildlife Mitigation and Monitoring Plan similar to the one used on the Pinedale Anticline.
	Cathy Purves, Trout Unlimited	Pre-development baseline inventories must be completed prior to permitting.
	Cathy Purves, Trout Unlimited	Environmental protection measures include having a clear understanding of what you may be losing and its value to a resource. While the protection measures listed in the scoping statement discuss many criteria, there is no criterion that calls for a baseline vegetation and habitat survey prior to any development activities. The difficulty in reclaiming these valuable habitats to a productive and functioning system once development has ceased is one of the biggest challenges we face in this arid West. The BLM must take steps to make sure that these surveys are undertaken, data is catalogued and reviewed, and appropriate seed mixes are used.
	Cathy Purves, Trout Unlimited	As development expands over more and more wildlife habitat in this resource area, the BLM should be thinking forward for successful ways to mitigate wildlife impact issues. The Wildlife Matrix identified in the Pinedale Anticline ROD, while not ideal, should be a model from which to include in this project EIS. The use of best available science, land use concerns, and public concerns should also be included in this matrix analysis.
	Cathy Purves, Trout Unlimited	The project proponents should reclaim old abandoned well sites, utilize existing well pad sites, and conduct a thorough well activity inventory in the project area.
	Cathy Purves, Trout Unlimited	The BLM has a Regional Framework for Water Resources Monitoring Related to Energy Exploration and Development (Regional Framework; USGS 2007). As conditions for permitting this proposal and as guided by the ROD of the Pinedale Resource Management Plan ((November 2008), TU strongly feels that this project should not be permitted until all compliance with the Regional Framework and the RMP have been met.
	Cooperating Agency Meeting with Lincoln County	There is air monitoring being conducted by the Counties and new air monitoring equipment being purchased and run by the counties (1 new in Lincoln Co; 2 new in Sublette Co; and 1 new in Sweetwater Co.). Costs are shared between counties for these monitors. There is also a program run by WYDOT that may assist with purchase of air monitors for local communities. The LaBarge monitor has been in place for a year and a half and is located at the fire station in town. There is also a monitor in the Town of Farson which is located in town.
	Cooperating Agency Meeting with Sublette County and Others	The groundwater aspect of the project needs to follow the regional framework – develop a plan on how monitoring will proceed. It is good to have a plan as part of the EIS, because adaptive management is in place right from the start.
	Cooperating Agency Meeting with Sublette County and Others	The baseline data to assess condition. The monitoring program should be based on good data. BLM explained that the soils data was available for the area, that there was Game and Fish research done recently in the area on vegetation (mainly habitat), and that there were plans to compile BLM and G&F data.
	Cooperating Agency Meeting with Sublette County and Others	Recommend BLM work with the District on monitoring and developing a monitoring protocol. Need to get parties together to get the baseline data and quantify impacts of new energy development.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	When looking into updated water samples from producers, it could be good to recognize that practices for drilling oil or gas wells have changed over time, and have been improved to protect groundwater. Also state that the intent of updated sampling is not to identify problems due to past practices, but to establish which practices are effective and ineffective, and then move towards best practices.

Category	Commenter	Comment Text
Monitoring		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There are locations on the Rock Springs side of the project area with rivers and culverts that would benefit from monitoring/improvements.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There may be fencing issues associated with deer/grouse. Are potential fences wildlife friendly? Generally fencing meets wildlife-friendly standard, however, the project area has not yet had a fencing inventory done. As allotments are reevaluated, fencing may change, and would likely increase. The Upper Green River Valley Land Trust has been running the fence replacement project.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	WGFD state herpetologist has some existing protocols (survey) for amphibians and lizards and can supply monitoring protocols to BLM. Base monitoring surveys would be auditory for frog.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	New roads would all be monitored.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Data gaps include surface water concerns associated with erosion and sediment loading to streams from roads (primary) and pipelines/pads. Discuss monitoring these concerns with game and fish - on same page with DEQ on erosion monitoring.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There may be Spadefoot toad in the project area, although existence is not confirmed. There is a report currently being finalized from a 2-year contract for surveys in the summer of 2009. The survey was in the Bear River drainage and includes some locations within the project area.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Monitoring for geomorph (Rosgin stations) may be needed to determine or evaluate stream meander. Streams for this type of monitoring would be selected based on the likelihood of picking up changes in meander. This would represent an extra level of monitoring, so would need to talk to a geomorphologist to determine need or process. Monitoring at the Pine Group of Fogerty Creek could be useful, since this location had cutthroat trout population historically. This could be a good location for habitat enhancement. The monitoring process described is in use in Atlantic Rim for 2 years at this point (coming up on 3 years of data), so BLM may be able to determine the usefulness of the method based on that project.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Wildlife monitoring on many projects is difficult to maintain at current levels, so may not be appropriate to apply to this one. Monitoring in specific locations may help fisheries. Generally, a more holistic approach is acceptable.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There should be monitoring of culverts and roads of 5% slope or more for erosion to correct problems early for new construction. Need to maintain BMPs to limit sedimentation and protect aquatic species, may also include monitoring for previously build roads. A document on wind erosion is expected in front of WOGCC in April, and then will go to recommendations in documents for BMPs in December. These include some mitigation /monitoring methods that are working on Atlantic Rim.
	Jason Fearneyhough, Wyoming Department of Agriculture	The WDA strongly encourage the PFO provide for tracking and monitoring of all impacts within the PA. Monitoring data should include surface disturbance impacts, reclamation efforts, along with invasive and noxious weeds. These monitoring efforts should put a focus on Healthy Rangeland Standards and the importance of reclamation success. We highly recommend the PFO provide this data to cooperators and livestock grazing permittees to follow field development and the ability to adaptively manage their operations. U.S. Department of Interior - Bureau of Land Management. Standards for Healthy Public Rangelands. http://www.blm.gov/wy/st/en/programs/grazing/standards_and_guidelines/standards.html
	Jay & Sandy McGinnis, J.F. Ranch Inc.	Another issue I feel needs to be reviewed is the use of electric fencing for reclamation around new locations. It has been our experience that these fences are rarely, if ever, live and consequently cattle, particularly calves, crawl right through them and then can't get out. The fences need to be checked more frequently or another method of fencing should be used.
	John Emmerich, Wyoming Game and Fish Department	Wildlife inventories and monitoring should be conducted by the proponents.

Category	Commenter	Comment Text
Monitoring		
	John Emmerich, Wyoming Game and Fish Department	It is recommended that geomorphological studies (Rosgen III, W ARSSS) of nearby waterways be conducted and monitoring of cumulative impacts from culverts and roads with 5% slope or greater be conducted.
	John Emmerich, Wyoming Game and Fish Department	Information regarding the effects of energy development on amphibians is lacking. Energy development is likely to affect each amphibian species differently based upon life history. Permanent bodies of water, wetlands, ephemeral pools, and playas are of particular concern. Amphibians are highly dependent on water to complete their lifecycle (aquatic tadpole or larval phase). Loss of water on the landscape during the larval period could negatively affect amphibian populations. This effect could be exacerbated with successive years of water loss. Road mortality may increase during specific times of year based upon breeding chronology. Spring breeding migrations and summer post-metamorphic emergence, result in amphibian congregations. Large mortality events could occur if these congregations were located on or near roads. Roads should not bisect or run immediately adjacent to any water feature, or prevent anurans from reaching adjacent habitat. Noise could interrupt breeding congregations of frogs and toads. Additional data is needed regarding the effects of energy development on amphibians. It is recommended that surveys be conducted on a diverse array of amphibians and habitats to ensure that impacts are minimized.
	John Emmerich, Wyoming Game and Fish Department	Information regarding the effects of energy development on reptiles is lacking. Energy development is likely to affect reptile species differently based upon life history. Development infrastructure could potentially increase basking opportunities for many reptiles, but could disturb daily routines due to noise disturbance. Many reptile species are dependent on rocky outcroppings or accessible geologic features for hibernation. It is recommended that these features are avoided to ensure the integrity of hibernacula (overwintering areas or dens). Additionally, many species of reptile are reliant on cover features present on the landscape. It is recommended that fence rows, fallen trees, prairie dog colonies, and potential basking rocks are left in the condition in which they were found. Direct road mortality is of particular concern for reptile species. It is recommended that the minimum amount of roads be placed upon the landscape. Drivers should be instructed to avoid reptiles that are basking upon road surfaces. It is recommended that surveys be conducted on a diverse array of reptiles and habitats to ensure that impacts are minimized.
	John Emmerich, Wyoming Game and Fish Department	1) Create habitat maps for development area, taking into account ephemeral water features such as vernal pools and playas. Mapping will occur within 200 meters from proposed roads (100 meters on each side) and a circular radius of 200 meters from each pad. 2) Contact the Wyoming Game and Fish Department to determine sensitive habitats or species within the development area. If amphibian monitoring is required, amphibian protocols can vary based upon species present. Examples of requested protocols could include: a. Acoustic breeding surveys should be conducted at least three times annually on all water features. Surveys periods should be temporally spaced to include peak calling of all amphibians estimated to be within the study area. b. During spring, small funnel traps should be placed in aquatic features to assess salamander populations. c. During late summer, visual encounter surveys should be conducted to look for post-metamorphic anurans. These surveys should be designed to assess recruitment into the population. Surveys should have a time or area constraint in order to estimate relative abundance. d. Additional protocol information can be found in the reference: Measuring and monitoring biological diversity: standard methods for amphibians. 1994. W. R. Heyer, M. A. Donnelly, R.W. McDiarmid, L.A. C. Hayek, and M. S. Foster, editors. Smithsonian Institution, Washington, D.C. Pp 364. 3) Mitigation may be required if sensitive habitats or species are impacted. 4) Because of breeding chronology and the secretive nature of some species, two years of survey are recommended before development begins. During pre-development surveys, important amphibian areas (such as breeding sites) should be designated for avoidance during construction. Surveys should be conducted at least three years post-construction to determine possible effects of development on amphibian species.

Category	Commenter	Comment Text
Monitoring		
	John Emmerich, Wyoming Game and Fish Department	1) Create habitat maps for development area, taking into account major habitat types. Mapping will occur within 200 meters from proposed roads (100 meters on each side) and a circular radius of 200 meters from each pad. 2) Contact the Wyoming Game and Fish Department to determine sensitive habitats or species within the development area. If monitoring is required, reptile protocols can vary based upon species present. Examples of requested protocols could include: a. Perform multiple time or area constrained reptile surveys in all available habitats. Surveys should be designed to look for species presence and relative abundance. Surveys should take into consideration the natural history of all reptiles species thought to be on the study area. Special effort should be made to survey potential reptile hibernacula during spring and fall migrations. b. Effort should be made to look for secretive species. This could include night surveys, flipping cover objects, or setting drift fences along specific habitat features. c. Road mortality surveys should be conducted to determine the effects of roads on local reptile species. d. Additional information regarding survey protocols may be found in the draft PARC document: Inventory and Monitoring: Recommended Techniques for Reptiles and Amphibians, with application to the United States and Canada (Accessed 20 August 2009). 3) Mitigation may be required if sensitive habitats or species are impacted. 4) Because of the secretive nature of many reptile species, it is recommended that surveys begin at least two years in advance of infrastructure development. During predevelopment surveys, important reptile areas (such a hibernacula) should be designated for avoidance during construction. Surveys should continue at least 3 years post construction to determine the effects of development on reptile species.
	Joy Bannon, Wyoming Wildlife Federation	Vegetation monitoring is essential to "detect ecological trends and to effectively protect and manage deer [big game] habitats at risk from ongoing and escalating impacts." (WGFD, Mule Deer Initiative, 2007)
	Joy Bannon, Wyoming Wildlife Federation	Establish thresholds for wildlife and fisheries impacts that will include indicators, a policy to mitigate or curb the impacts and prevention methods to maintain wildlife and fish numbers. Annual maintenance and threshold mitigation data of the habitat condition must be applied.
	Joy Bannon, Wyoming Wildlife Federation	Ambient air monitoring programs should be utilized and documented with the goal of exceeding the stated mitigation goals. An analysis should be provided with particular focus on visibility, regional haze, acid deposition, and potential increases in acidification to acid sensitive lakes.
	Kent Connelly, Coalition of Local Governments	If area is not adequately monitored, the Operators should establish monitoring or contribute to air quality monitoring efforts.
	Kent Connelly, Coalition of Local Governments	Performance-based as opposed to prescriptive standards are better able to adapt to the variability of soils, precipitation, and vegetation found in the project area. The standards should be defined for the affected biological and physical resources as well as potentially conflicting land uses. CLG recommends that the project establish performance-based operating and reclamation standards that focus on site stabilization within the first year, with interim vegetation, and final reclamation with native species. Reclamation needs to be tailored to site activity, site capability, and adapt to what works.
	Kent Connelly, Coalition of Local Governments	A Monitoring Plan must be developed and provide for annual planning meetings (and more as needed) among the Operator, BLM, affected livestock grazing permittees or landowners, and the local cooperating agencies. Such meetings will address resource issues such as livestock grazing, reclamation, transportation, habitat, wildlife and the development plan for the coming year. This will allow EOG, affected interests and BLM to plan and adjust for situations where reclamation or mitigation is not working or where there are other resource conflicts.
	Kent Connelly, Coalition of Local Governments	The EIS needs to provide that reclamation will commence as soon as it is determined which lands are not needed for production activities, and that mitigation will be determined and commenced at project initiation, rather than being withheld until some future date.
	Kent Connelly, Coalition of Local Governments	CLG members recommend that the monitoring program adopt performance standards that focus first on vegetation, soil and water quality, rather than focusing primarily, if not exclusively, on wildlife population numbers. Development impacts are detectable earlier in vegetation and soil impacts, while wildlife numbers may take a year or more before there is a detectible change and those changes may be due to other regulatory actions, such as hunting limits. By setting the standards specific to the project soil, vegetation, and availability of water, the monitoring program will detect adverse changes more quickly and the affected entities can respond more quickly under this adaptive management model.

Category	Commenter	Comment Text
Monitoring		
	Larry Svoboda, EPA, Region 8	The EPA also recommends the EIS disclose the extent to which aquatic habitat could be impaired by potential activities, including effects on surface and subsurface water quality and quantity, aquatic biota, stream structure and channel stability, streambed substrate, including season and spawning habitats, stream bank vegetation, and riparian habitats. Particular attention should be directed at evaluating and disclosing the cumulative effects of increased levels of erosion and sedimentation. Water quality parameters such as conductivity, dissolved and suspended solids, metals, pH, temperature, dissolved oxygen and physical aquatic habitat parameters may also be important monitoring indicators for determining stream or lake impairment or tress, as well as its sensitivity to further impacts. Existing water quality standards applicable to affected waterbodies should be presented to provide a basis for determining whether existing uses will be protected and water quality standards met.
	Todd Parfitt, DEQ	The WQD supports the recent BLM/USGS document "Regional Framework for Water Resources Monitoring Related to Energy Exploration and Development" (USGS 2007). This document provides a framework for developing a monitoring strategy for measuring and mitigating water resource damage. This document should be referenced in the ETS and the monitoring- framework should be followed to develop a monitoring plan for both surface and groundwater prior to any development.
NEPA Process		
	Cathy Purves, Trout Unlimited	The last paragraph in this section commits the Operators to various mitigating opportunities. This paragraph (like the entire document for the most part) is the exact same as EOG's 2008 Project Description for the LaBarge Platform. TU requests confirmation that all operators have agreed to participate in all of the mitigation aspects of this Project Area, including new mitigation opportunities that have yet to be identified.
	Cathy Purves, Trout Unlimited	The BLM must use updated resource management plans in their project analysis.
	Cathy Purves, Trout Unlimited	The Green River Resource Management Plan of 1997 will begin scoping for the new version in January 2010 (per BLM communication). Consideration for this revision should be included in the EIS discussion for this project and if significant environmental concerns surface, delaying this project's permit until the Green River FEIS is completed should be done.
	Cathy Purves, Trout Unlimited	The BLM must update the conformance plans being used to evaluate the proposed project. All of the references cited are more than 10 years old and only one has had an update (page 5 of the Scoping document). The Pinedale RMP ROD is now November 2008 rather than the stated 1988 document.
	Cathy Purves, Trout Unlimited	A Winter Activity Plan is referenced but there is no discussion of this plan other than the one or two sentences in this section.
	Cathy Purves, Trout Unlimited	The BLM must include the Wyoming Game and Fish Department's "Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats".
	Cathy Purves, Trout Unlimited	Similar to that which is being conducted on the Pinedale Anticline, TU asks that an Annual Planning Meeting be convened at the beginning of each year that addresses the operator's plans, involves public participation, and coordinates the activities that are likely to occur for the year.
	Cathy Purves, Trout Unlimited	BLM should establish a Activity Plan Working Group for this Project.
	Cathy Purves, Trout Unlimited	The December 2009 proposed action calls for exploring and developing potentially productive subsurface formations underlying oil and gas leases owned, in part, by the above mentioned operators. While the project area acreage remains the same (218,000 acres) as in the first scoping document (La Barge Platform Exploration and Development Project EIS, EOG Resources, Inc... Final, October 2008) the total proposed number of wells for all operators has decreased from 988 to 838. Despite the addition of Exxon Mobil, Chevron, and Wexpro, little has changed from the single Project Description EOG Resources submitted in 2008. In fact, there is very little reference to the management implications, objectives, and appropriate actions that will guide this project through the Pinedale Resource Management Plan (RMP). The project proponent's plan still call for year-round drilling access, the same plans are mentioned for handling wastes and produced water (truck traffic), there is insufficient fish and wildlife mitigation discussions, there lacks any Reclamation Plan, or a Plan of Development for the non-unitized lands, and there exists poorly discussed air emissions compliance. The noticeable difference is one less operator identified in the 2009 proposal versus the 2008 proposal which would account for the lower number of wells.

Category	Commenter	Comment Text
NEPA Process		
	Cathy Purves, Trout Unlimited	According to the language of the RMP regarding these APWG's, the BLM should have already met with the potential cooperating agencies before this scoping was initiated. We would like to see the results of any formation of this Group.
	Cathy Purves, Trout Unlimited	As stated in TU's September 2009 comments (page 9), we again ask for a public advisory group that involves the public in a stakeholder engagement process for these affected public lands.
	Cathy Purves, Trout Unlimited	There are no alternatives proposed for initial consideration in this entire scoping document. The Federal Register describes that the BLM will analyze environmental consequences in the EIS; that is clearly understood. And while the Federal Register Notice states that alternatives will be considered, including the use of different drilling densities and pacing development, there has not been anything referred to by the local BLM office. TU respectfully requests that these alternatives be considered, in addition to alternatives that do not allow year-round drilling.
	Cathy Purves, Trout Unlimited	Please include an Adaptive Management approach that can be used effectively and requires the public's input.
	Cathy Purves, Trout Unlimited	The BLM must include alternatives that represent thoughtful and science-based plans for protection the remaining wildlife habitat within this project area.
	Cathy Purves, Trout Unlimited	TU continues to be concerned about the landscape impacts and cumulative effects the proposed project will have on the short term and long-term scenario within both the Pinedale resource management area and the Green River resource management area. We stress again our desire to see the BLM provide alternatives that include a paced or phased approach to development based on other active and proposed large scale development scenarios scheduled to occur within the Pinedale BLM resource area. All the alternatives should include requirements that implement up-to-date Environmental Protection Agency (EPA) and Department of Environmental Quality (DEQ) air quality and water quality (including groundwater) analyses, and wildlife and habitat inventory, mitigation, and monitoring plans prior to any exploration, production or development activities due to the significant amount of environmental impacts likely to occur from these proposed projects. Finally, BLM must require the operators to implement the best available technology in their drilling and development operations to reduce air pollution, water pollution, and wildlife and fish impacts.
	Cathy Purves, Trout Unlimited	The map provided on page 2 is a poor depiction of the project area with little geographic identities, including streams and rivers, land status, towns, and current oil and gas well activities. A better set of maps would be recommended that would identify the regional geographic references and locations, including watersheds and land status. We ask that the EIS include the most current land use activities, including all oil and gas wells, streams, rivers, towns, resource management areas, etc.
	Cathy Purves, Trout Unlimited	Proposed Action Does Not Adequately Present All Proponents' Plans of Development/Project Description.
	Cathy Purves, Trout Unlimited	We urge the BLM to consider pacing this project, using a plan similar to that which is being used on the Pinedale Anticline, and take into account the additional drilling operations simultaneously occurring within this region.
	Cathy Purves, Trout Unlimited	The Pinedale RMP states on page 2 62 that Activity Plan Workings Groups (APWG) will be formed for new projects when circumstances dictate. The makeup of this group should also include affected stakeholders such as landowners, local businesses, and representatives from the hunting and angling community.
	Cathy Purves, Trout Unlimited	We also request that the additional four projects that were included with the EOG project be removed from this EIS and be reviewed under a new EIS once full plans of development have been submitted. Should that not occur, then we respectfully request the development of a unit that directs all five projects to comply with strict environmental guidance and stipulations.
	Cathy Purves, Trout Unlimited	Please incorporate all conservation measures, program activities and mitigation guidelines and standards as described and adopted in the Final RMP ROD, November 2008 (Appendices 1-3). This Project Description contains few if any of the conservation measures and operating standards described in the ROD and these new management measures and standards will affect how this Project Description moves forward.
	Cathy Purves, Trout Unlimited	Recognition of the Governor's Sage Grouse Core Management Plan should be included in this analysis.

Category	Commenter	Comment Text
NEPA Process		
	Cathy Purves, Trout Unlimited	Please make sure that the Project Plan conforms to the NEPA "*Guidance on Mitigation and Monitoring*" memorandum that is in draft form at this time but will provide substantial guidance by the time this project is approved (see Memorandum on *Draft Guidance for NEPA Mitigation and Monitoring*, February 18, 2010).
	Cathy Purves, Trout Unlimited	EOG presented a fairly thorough project description for their proposal to drill, complete, produce and reclaim up to 604 new oil and gas wells on an estimated 454 well pads. The remaining four drilling proposals that have been "attached" to this scoping notice are insufficient in content (or totally lacking any discussion) and quality to be able to include them in the development of this environmental impact statement. ExxonMobil's 3 page proposal is significantly inadequate and presumptive in attitude for their proposed 214 horizontally drilled natural gas wells. And the lack of any project plans in the scoping documents for Chevron USA's proposal to drill 126 oil and natural gas wells, Wexpro's/Questar's proposed 31 wells, or Pinedale Investments Inc., proposal of 13 wells reflects a lack of coordination in this scoping process. We request a separate EIS for the evaluation of the additional four project proposals, based on their size, the varying differences in their projects, and likely impacts.
	Cathy Purves, Trout Unlimited	The discussion of disturbance is significantly lacking in information. Area B's discussion only mentions that a typical new well pad requires an initial disturbance of 10 acres. Yet, this area is slated for up to 214 wells and covers 54,000 acres. Road access development should also be included in this analysis.
	Cathy Purves, Trout Unlimited	The proposed wells and well pads distribution must be identified in order for the EIS to fully account for the potential impacts to air, water, fish and wildlife. The scoping document does not address or locate any such specific development plans.
	Cathy Purves, Trout Unlimited	The Scoping Documents concentrate entirely on the EOG proposal and does not discuss the additional four proposed projects other than a brief list on page 2 of the Scoping Notice.
	Cathy Purves, Trout Unlimited	Please update the reference to the Best Management Practices (BMPs) as identified in this Project Description. The updated 2008 RMP ROD provides similar but more specific details and this should be reflected in the EIS and the BLM's Alternative discussions.
	Cathy Purves, Trout Unlimited	Please provide more guidance regarding conformance with the Pinedale RMP than that which was identified on page 5.
	Cathy Purves, Trout Unlimited	Please incorporate two additional Memorandum guidance decisions that have just been released. They include "*Establishing and Applying Categorical Exclusions under the National Environmental Policy Act"* and *"Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions".* Both are dated February 18, 2010. In light of the fact that some of the Operators in this proposal are already asking for exclusions and exceptions, this material should be relevant.
	Cathy Purves, Trout Unlimited	The discussion on unitization of the Project Area on page 4 needs further clarification along with a map that depicts those leaseholders who are part of a unit and those that are not. The reasoning the BLM presented for why unitization is beneficial lacks substance and implies that the once an area is unitized, the BLM is free from interactions, compliance, and oversight of the projects within a unit (i.e., the BLM does not have to "contend with multiple operators"). Please explain more thoroughly why unitization is beneficial over nonunitization. Include in this discussion the repercussions to those operators who do not comply with stipulations and management decisions within a unit. Finally, the BLM states there are federal units in this area but do not identify who the single operator is whose actions will carry for all the operators in the unit.
	Cathy Purves, Trout Unlimited	A more complete description of the Project Area should be included in the EIS. As written in the Scoping Project Description paper, it is apparent this document has not been updated from the 2008 Project Description and was written prior to the completion of the Pinedale Final Resource Management Plan (ROD, November 2008). The description should include the fact that this project proposal is located in an intensely developed field (as described in Final RMP, Map 2-9), has specific management objectives for these development activities, and is adjacent (to the west) to an unleased area that has special protection management implications.

Category	Commenter	Comment Text
NEPA Process		
	Cathy Purves, Trout Unlimited	TU was unable to locate Section 1.1 (page 5) that describes the wells and well pads. Perhaps the reference was meant for Section 5. The Development Plans (A through F) are very vague and do not describe any of the differences in development strategies among the different operators. This type of information should be included in this Project Description as it would allow the reader to offer substantive comments and suggestions. In TU's original September comments we asked that these plans for each operator be discussed and/or an EIS for each operator's proposed project be developed since it appears from the language in the Project Description that the operators do not wish to define their plans. TU respectfully requests that detailed development strategies be presented in the EIS and that a thorough analysis of impacts be provided.
	Cathy Purves, Trout Unlimited	The combination of these collected projects would conceivably amount to the drilling of 1,000 wells or more. Based on the history of drilling expectations in this region and USGS general energy analysis, it can be assumed that this amount of drilling activity is underestimated. As an example, the differences in original estimations for drilling in the Pinedale Anticline included a significant increase in the number of wells than originally predicted; the Jonah Field also exceeded original estimates and is now expanding within its project boundaries based on further discoveries. We feel that EOG's proposal alone is large enough that it should warrant a thorough environmental impact analysis which adequately and thoroughly evaluates their proposed development scenario as separate from a collective grouping.
	Claire Moseley, Public Land Advocacy	As discussed on a conference call held August 31, 2009 between BLM, lessees/operators in the LaBarge Platform area, as well as PLA and the Petroleum Association of Wyoming (PAW), it was revealed that there was significant confusion regarding the scope and purpose and need for the LaBarge EIS. While the scoping notice indicates the primary project proponent is EOG, it also includes potential well figures from other operators. This information was based upon data received in response to a BLM letter to other area operators in the vicinity regarding their future development plans. The letters made it clear that if no future project information was provided, BLM would be unwilling to process applications for permit to drill during the preparation of the DEIS on EOG's project. As a result, affected companies endeavored to provide BLM with the information requested. Not all of the information provided constituted concrete drilling plans, but a couple of companies were able to formulate specific projects. In the meantime, BLM finalized a Memorandum of Understanding (MOU) with EOG for their project EIS and published a scoping notice in the *Federal Register*. Despite the fact that the scoping notice identified potential plans of other operators, it was unclear that it was intended to be a multi-operator project EIS. It has now become apparent that this project EIS is, in fact, intended to be a multi-operator endeavor. BLM maintains this situation will not require a new scoping notice to be published. However, it does change the entire complexion of the project from what was initially agreed upon between EOG and BLM. Therefore, it is necessary for BLM to revisit this issue with all the operators in order to prepare a new MOU because all interested parties must be included. Neither PLA nor PAW needs to be party to the MOU.
	Claire Moseley, Public Land Advocacy	PLA urges BLM to avoid unnecessarily inflating the analysis by limiting the alternatives considered in detail in the EIS to those that are practical, both in terms of technical and economic feasibility, and would meet the purpose and need of the analysis and the project description. In addition, due to the valid existing lease rights held by the operators, it would be unreasonable for BLM to analyze a "no drilling" alternative in the EIS. BLM must recognize that a "no action" alternative is far different from a "no drilling" alternative.
	Cooperating Agency Meeting with Sublette County and Others	Consistency with local plans.
	Cooperating Agency Meeting with Sublette County and Others	The Pinedale RMP outlines a process for involving the affected communities. That process should be followed as laid out, and meetings with the local governments held, so that mitigation can be planned for upfront.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The document should include definition of reclamation of well pads after construction, and identify reclamation of existing well pads where possible.

Category	Commenter	Comment Text
NEPA Process		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Data gaps in the project description include (based on Pinedale Anticline, but similar issues likely here): groundwater characterization; aquifer characterization for the project; number and location of water supply wells (stock, domestic) in the Pinedale area; ability to ID water availability based on well field information. Identification of data gaps is part of the steps in the framework monitoring document, listed as an important objective. Further identification of ID data gaps will require significant effort, and needs to first include a study of aquifer systems. This means that the process of filling data gaps may take time and money.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There may be water disposal issues. The most likely disposal method will be active injection, but there also may be some surface disposal - this needs to be defined in the project description.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	A fix as you go scenario would be more efficient in time or money, as well as more likely to occur as far as mitigation. This approach should be in at least one alternative.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The EIS may need to evaluate alternatives both on performance base and prescription base BMPs. Would support performance-based BMPs.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	One emerging issue in the public arena is hydraulic fracturing. There should be some discussion or consideration of methods for disposal of flowback fluid after fracturing. The concern is where the fluids go. Hydraulic fracturing fluids may be less innocuous than drilling muds, but they can include different chemicals. If these fluids are or should be dealt with differently from drilling muds, there may need to be a discussion in the EIS on how these fluids are managed or disposed of. Some fluids can go to injection wells or reserve pits, but overall, disposal is not generally addressed. There should be some discussion between WOGCC and BLM to determine if are dealt with appropriately. There seems to be a public concern that fluids are source of contamination.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	One Alternative produced by BLM or Industry could identify the culvert locations that would be most crucial for fixes or improvements.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	A disturbance cap has been discussed for alternatives.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that permits restrict commercial disposal sites by volume. As long as proposed disposal amounts are within that limit, there is no new/connected action. In the EIS document, BLM can identify which commercial sites are likely to be used (also helps with transportation plan) to represent where water is going. If sites are not permitted properly, or if sites do not have projected capacity, then development of newer facilities would be a connected action. Do want to make sure sufficient capacity exists to deal with projected wastewater. If not available, are there other alternative methods/storage system. Keep in mind that additional disposal sites would take time to develop and permit.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Wells in the northeast area (area F on current map) are more exploratory. In that area, the description says there are 58 federal wells – the project description needs to say if this is the actual well count, or if there are there more wells with other surface ownership. The Hogsback and Tip Top (leases) are owned by Exxon. There are fewer wells there than EOG has. Area E will likely be infill, with the addition of gas wells.
	David Bouquet, Exxon Mobil Production	In late 2008, EMPC received two letters from PFO requesting specific information concerning future gas development on the subject units. PFO was explicitly clear that if EMPC did not submit the requested information, future Applications for Permits to Drill (APD) would not be considered until the EIS was completed. Therefore, in March 2009, EMPC met with the PFO staff to discuss BLM's request for Reasonably Foreseeable Development (RFD) and subsequently submitted our RFD to BLM in May 2009. At that meeting, we confirmed with PFO staff that APDs submitted by EMPC during the time the EIS was in progress would be approved on a case by case basis, and that APDs filed by EMPC after completion of the EIS would be approved under the Record of Decision for the Labarge Platform EIS.

Category	Commenter	Comment Text
NEPA Process		
	Eric Dille, EOG Resources	The LBP Project EIS Must Analyze Reasonable Alternatives. It is well established that NEPA only requires an agency to consider "reasonable alternatives" to a proposed action. 40 C.F.R. § 1502.14 (2009); 43 C.F.R. § 46.420(b) (2009). When developing alternatives for analysis in the LBP Project EIS, BLM must consider the purpose of EOG's proposal. "In determining whether an agency considered reasonable alternatives, courts look closely at the objectives identified in an EIS's purpose and needs statement." *Citizens ' Comm. To Save Our Canyons v. United States Forest Serv.*, 297 F.3d 10 12, 1030 (2002). Where, as in this case, the proposed action is triggered by an application from a private party, "it is appropriate for the agency to give substantial weight to the goals and objectives of that private actor." *Citizens ' Comm. To Save Our Canyons,* 297 F.3d at 1030; *accord Colorado Envtl. Coal. V. Dombeck*, 185 F.3d 1 162, 1174-75 (1999); Council on Environmental Quality Guidance Memorandum, 48 Fed. Reg. 34,263, 34,267 (July 28, 1983) ("There is . . . No need to disregard the applicant's purposes and needs and the common sense realities of a given situation in the development of alternatives"). Here, the purpose of EOG's proposal is to develop and maximize recovery of the hydrocarbon resources underlying its federal, state, and private-fee mineral leases within the LBP Project Area; and, to enable EOG's commercial production of federally, state, and privately owned mineral resources in conformance with the Pinedale RMP pursuant to its rights under existing oil and gas leases issued by the BLM, the state of Wyoming, and private land owners. In addition, the further intent of the proposed action is to prevent the drainage of federal minerals by oil and gas wells located on adjacent non-federally owned lands (i.e., the State of Wyoming and private lands). In developing alternatives for the LBP Project EIS, BLM must consider these purposes. Furthermore, BLM must ensure that it only analyzes alternatives that meet the purpose and need of the LBP Project. *See* 40 C.F.R. § 1500.2(e) (2009) (reasonable alternatives include those "which will accomplish the intended purpose, are technically and economically feasible, and yet have a lesser or no impact)" 43 C.F.R. § 46.420(b) (requiring BLM to analyze only reasonable alternatives that meet the purpose and need of the proposed action). The federal courts and the IBLA have made clear that "alternatives that do not accomplish the purpose of an action are not reasonable and need not be studied in detail by the agency." *Citizens' Comm to Save Our Canyons*, 297 F.3d at 1030 (quoting *Custer County Action Ass'n v. Garvey*, 256 F.3d 1024, 1041 (2001)) (internal quotations omitted); see also *Santa Fe Nw. Info. Council, Inc., et al.*, 174 IBLA 93, 117 (2008) (holding that BLM need not analyze alternative that does not meet project's purpose and need); Wyoming Outdoor Council, 151 IBLA 260, 272 (1999). The Department of the Interior's recently promulgated NEPA regulations similarly require the BLM to only analyze reasonable alternatives, and specifically defines reasonable alternatives as those that are "technically and economically practical or feasible" 43 C.F.R. § 46.420(b) (2009). BLM may not analyze alternatives that are not consistent with the LBP Project's purpose and need of developing hydrocarbon resources within the LBP Project Area. *Id.* The LBP Project EIS should include a detailed explanation of the rationale for the development of each alternative considered, including how the alternative satisfies EOG's purpose and need. Finally, BLM must ensure that the alternatives analyzed in the LBP Project EIS are both feasible and economic. The CEQ has described reasonable alternatives as "those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable." *CEQ 's Forty Most Asked Questions*, Question 2a, 46 Fed. Reg. 18028, 18027 (Mar. 23, 1981) (emphasis added). BLM need not analyze speculative, impractical, or uneconomic alternatives. *Citizens' Comm. To Save Our Canyons,* 297 F.3d at 1030-31; see also C.F.R. § 46.420(b). Overly stringent restrictions or conditions of approval (COA) may render development uneconomic. In the LBP Project EIS alternatives analysis, BLM must recognize that the hydrocarbon resources within the LBP Project Area may not be developed if restrictions render development economically unfeasible.
	Eric Dille, EOG Resources	The LBP Project EIS Should Adhere to the Proposed Action as Submitted. EOG submitted a Final Proposed Action to the BLM on October 3, 2008. EOG is the sole Proponent of the LBP EIS (See *Memorandum of Understanding between EOG Resources, Inc. and the U.S. Department of the Interior Bureau of Land Management for the Purpose of Preparing an Environmental Impact Statement ,for the LaBarge Platform Oil and Gas Project, signed July 1, 2008*). As far as EOG is aware, no other Operators have submitted formal proposals or applications to the BLM. However, the BLM has requested and received information from other Operators in the greater LBP Project Area that has been included in the Notice of Intent and Scoping Notice for the LBP Project EIS. EOG requests that the other Operators' well development information be analyzed as part of the cumulative effects analysis in the EIS, not as part of the Proposed Action or an alternative given the fact they have not been formally proposed. BLM should similarly clarify in the EIS that analysis of other Operators' development information is not based on formal proposals to the BLM. The potential impacts of reasonably foreseeable future development in the greater LBP Project Area can be considered as part of a robust cumulative effects analysis.

Category	Commenter	Comment Text
NEPA Process		
	Eric Dille, EOG Resources	BLM May Not Equate the No Action Alternative with a No Development Alternative As BLM is aware, its analysis of alternatives must include consideration of a "no action alternative" 40 C.F.R. § 1502.14(d) (2009). In the LBP Project EIS, the no action alternative is not an alternative under which no additional development would occur. Rather, BLM must analyze development that could proceed under the current management of the LBP Project Area if BLM did not approve the LBP Project proposal. *See, e.g., High Desert Multiple-Use Coal., Inc., et al.,* 116 IBLA 47, 53 n.7 (1990) ("'no-action' alternative accepts the status quo and takes no action."). The governing land use plans permit oil and gas development within the LBP Project Area, and development is consistent with EOG's existing lease rights. Accordingly, BLM must not analyze a no-action alternative under which no development will occur. Additionally, in its analysis of a no action alternative under which BLM would not approve the LBP Project, the BLM should clearly inform the public that selection of the no action alternative would not meet the purpose and need of the proposed action, would be inconsistent with the BLM's mandate to encourage natural gas production from federal lands, and would be contrary to the National Energy Policy and Executive Order 13211, 66 Fed. Reg. 28355 (May 18, 2001).
	Eric Dille, EOG Resources	The LBP Project EIS is a Programmatic Document and Will Not Analyze the Site-Specific Impacts of Development The LBP Project EIS is intended to analyze the potential impacts of the Project at the programmatic level. As a result, BLM should not engage in speculative analysis of potential impacts resulting from the placement of individual wells because these impacts will be analyzed once specific development is proposed. The analysis of site-specific potential impacts of development will appropriately occur when applications for permits to drill (APDs) are filed. The exact placement of future well locations is not presently known, and any attempt to anticipate well locations and the resulting site-specific impacts "would be predictably inaccurate." *See Biodiversity Conservation Alliance, et al.*, 174 IBLA 1, 15 (2008). The Interior Board of Land Appeals (IBLA) has endorsed BLM's analysis of project-level impacts of development in programmatic documents such as the LBP Project EIS, and allowed BLM to defer analysis of individual well locations until development is actually proposed. NEPA's requirement that a project's impacts be evaluated at an early stage in the planning process is "tempered by the preference to defer detailed analysis until a concrete development proposal crystallizes the dimensions of a project's probable environmental consequences." *Biodiversity Conservation Alliance*, 174 IBLA at 16 (quoting *'Ilio 'ulaokalani Coal. V. Rumsfeld*, 464 F.3d 1083, 1095-96 (9th Cir. 2006)). As a result, programmatic documents need not be as particular or detailed as would be required to support a site-specific action. *See Biodiversity Conservation Alliance*, 174 IBLA at 16. Accordingly, when evaluating the impacts of the LBP Project, BLM must evaluate potential impacts on a broad, programmatic level. BLM need not become mired in the details of site-specific analysis when such analysis will occur at the APD stage.

Category	Commenter	Comment Text
NEPA Process		
	Eric Dille, EOG Resources	The LBP Project EIS Must Rely on All Best Currently Available Information Management strategies for wildlife management and range management should be based upon sound science using data from the most recent studies conducted within the project area or from areas similar to that of the management area; i.e., areas within or near to southwestern Wyoming with existing long-term oil and gas development. Data from studies in areas not similar to the project area should be avoided. Guidance provided in the BLM National Environmental Policy Handbook H-1790- 1 states that "existing environmental analyses should be used in analyzing impacts associated with a proposed action to the extent possible and appropriate. This approach builds on work that has already been done, avoids redundancy, and provides a coherent and logical record of the analytical and decision-making process." The EIS should include examples of wildlife and rangeland management strategies in areas of existing oil and gas development that support the conclusions drawn by the analyses to these resources. The examples should vary according to alternative. The EIS must consider and should include data resulting from studies that demonstrate the beneficial effects of oil and gas development. Some of these studies are listed below: • Easterly, T., A. Wood, and T. Litchfield. Undated. Circa 1992. *Response of pronghorn and mule deer to petroleum development on crucial winter range in the Rattlesnake Hills.* Unpublished Completion Report. Hayden-Wing Associates. 1991. • Hayden-Wing Associates. *Review and evaluation of the effects of Triton Oil and Gas Corporation's proposed coalbed methane field development on elk and other big game species.* Unpublished report. Laramie, WY. 1990. • Hayden-Wing Associates. *Review and evaluation of the regulation and effects of oil and gas development on mule deer, sage grouse, and raptors on the Big Piney- La Barge winter range*. Unpublished report. Laramie, WY. • Johnson, B. K., L. D. Hayden-Wing, and D. C. Lockman. *Responses of elk to development of Exxon's Riley Ridge Gas Field in western Wyoming*. 1990. • R. L. Callas, D. B. Koch, and E. R. Loft, Eds. *Proceedings of the 1990 western states and provinces elk workshop, Eureka, CA*. California Department of Fish and Game. Sacramento. 1990. • Van Dyke, F. and W. C. Klein. *Response of elk to installation of oil and gas wells.* Journal of Mammalogy. 77(4): 1028-1041. 1996.
	Eric Dille, EOG Resources	The BLM May Solicit Information from the Proponent To develop an EIS that accurately considers the economic and operational factors relating to the oil and gas development in the LRP Project Area, the BLM must actively solicit data from the Proponent. The CEQ regulations specifically allow project proponents to submit information to the federal agency during the pendency of an EIS. 40 C.F.R. § 1506.5 (2009). Agencies are given the explicit authority to require project applicants to submit information to be used in the preparation of the EIS, after an appropriate, independent review by the agency. *Id*.
	Erik Molvar, Biodiversity Conservation Alliance	We can see the boundaries of the project area, but what is not clear is the extent to which drilling will occur inside the bounds of the currently developed Labarge Oil Field, versus the extent to which the project will spill out into undeveloped lands. This should be clearly explained with maps showing the locations of all current roads, pipelines, compressor stations, and wells plus the location; of all proposed new roads, pipelines, compressor stations, and wellsites.

Category	Commenter	Comment Text
NEPA Process		
	Erik Molvar, Biodiversity Conservation Alliance	The EIS should include a broad range of reasonable alternatives, including the following: 1. Capping the density of surface well sites at one wellsite per square mile. Directional drilling is in widespread use in the Upper Green River Valley, and Questar is drilling more than 50 wells directionally from a single wellpad. There is no excuse for the BLM to allow well surface densities greater than one pad per square mile, given the capabilities of the technology. It is true that in the Jonah Field, initial drilling results indicated that 13% directional wells experienced some type of difficulty in drilling, and largely as a result remediating these problems well costs were 10% higher for directional wells than of vertical wells. This is a small premium for oil and gas operators to pay to achieve something that more closely approaches multiple use in the context of full-field oil and gas development. 2. Displacing surface disturbance from sensitive wildlife habitats. Sensitive wildlife habitats such as big game crucial ranges and sage grouse nesting habitats should be avoided; the gas and oil resources underneath them will still be available for production via the use of direction drilling. 3. Requiring green completions. Needless waste of natural gas through venting and flaring can be avoided by requiring green completions, thereby reducing air pollution and greenhouse gas production. 4. Require piping of condensate and central collection facilities rather than wellsite condensate tanks. This reduces truck traffic associated with trucking the condensate (thereby reducing to some degree disturbance to wildlife), and also reduces emissions of VOCs from condensate tanks. 5. Require well telemetry and reduce wellsite visits for the purpose of well tripping. The reduction of truck traffic would further reduce disturbance to wildlife and dust pollution. 6. Require closed-loop drilling in lieu of reserve pits. This reduces the size of individual well pads and thereby reduces the overall surface disturbance of the project.
	John Emmerich, Wyoming Game and Fish Department	We would like to be active participants in the development of this EIS. Our personnel stationed in both the Jackson and Pinedale Regional offices have the expertise to address wildlife and habitat related issues as they may pertain to this development proposal.
	Jonathan Ratner, Western Watersheds Project Wyoming Office	Honest and accurate analyses. While this may seem basic, we almost never see it done. The analyses are cursory, general, fail to take into account current knowledge, fail to gather the needed data for accurate analyses, fail to examine the assumptions and analyses of previous NEPA to determine flaws and inaccuracies and learn from past mistakes, underestimate all impacts and overestimate all „benefits'. Don't outsource the NEPA process - Universally we find outsourced NEPA whether they be RMP's or site specific are more expensive and of poorer quality when outsourced. The contractor nearly always has a conflict of interest since most of their business is doing analyses for industry so if they were honest they would never be hired by industry to do their NEPA for them again.
	Joy Bannon, Wyoming Wildlife Federation	We respectfully request that the BLM consider the alternatives presented and the recommendations provided in these comments. We are concerned the BLM doesn't have the technical requirements to successfully analyze and assess the short term, long range and permanent effects this proposed project will have on the landscape and its users. The LaBarge Platform Infill project area contains riparian areas and wetlands, which are important to the ecological health of the region. Big game migrate, give birth, and abundantly exist in this landscape.
	Joy Bannon, Wyoming Wildlife Federation	The LaBarge Infill Project area is too special. If the project is allowed to move forward, we believe it requires a diverse set of alternatives. Please consider the following alternatives that look at increasing resource protection measures and slowing down of development. The Wyoming Wildlife Federation suggests the following alternatives:
	Joy Bannon, Wyoming Wildlife Federation	Incremental or Phased Development Alternative: The BLM could analyze the impacts from the proposed development of 454 well pads and 604 wells, but if the BLM decides to approve the project it should be done incrementally or in phases with small plots being worked on, completed, and reclaimed before moving to the next stage. Federal and state agencies, such as the Environmental Protection Act (EPA) and Wyoming's Department of Environmental Quality (DEQ) would assist with air quality monitoring, the Wyoming Game and Fish Department would assist with terrestrial and aquatic species impacts, and the BLM would determine the thresholds and if those are met then development would halt. For a phased development to actually benefit elk [big game] animals need to be afforded security during crucial seasons and habitats need time for successful reclamation to occur. (Alldredge, Ph.D., comments on the BLM's Fortification Creek Area Draft RMP/EA, October 2008) This alternative should also include strict seasonal limitations and no winter drilling.

Category	Commenter	Comment Text
NEPA Process		
	Joy Bannon, Wyoming Wildlife Federation	Conservation Alternative: Evaluate an alternative that would be considered as a conservation alternative. This would entail additional stakeholders who are from the public and who use and/or depend on the area for recreation, business, hunting, angling or ranching. This alternative should include imposing strict seasonal limitations and no winter drilling aimed at wildlife protection, reducing the number of well pads and/or wells, considering alternate well pad locations, and requiring the use of the latest technologies, such as the use of mats during well construction. Mats are also known to reduce damage of vegetation and wildlife.
	Joy Bannon, Wyoming Wildlife Federation	A shut-in alternative: The present lack of pipeline capacity along with the amount of production already in place across Wyoming means that the natural gas exported from our state is greatly devalued. This project will inevitably cause harm to wildlife, air, water, fisheries, businesses, recreation opportunities, and the local communities without even an argument to be made on how this proposed project would benefit Wyoming's economy. Analyze an alternative that would approve the exploration and drilling of one to three wells only and if productive, analyze the potential to shut-in these wells—stopping further production until a time when the state of Wyoming would derive better revenue from the project. This alternative should also include strict seasonal limitations and no winter drilling.
	Kent Connelly, Coalition of Local Governments	Through the CLG, the local governments coordinate their participation in federal land use plans and projects. These comments identify and evaluate the potential impacts of the proposed action and recommend appropriate mitigation measures to minimize social, economic, and resource impacts. The issues raised in these comments should also be used in designing the alternatives. The following recommendations are in addition to the Mitigation Guidelines and Operating Standards Applied to Surface Disturbing and Disruptive Activities set forth in the 2008 Pinedale Resource Management Plan and Final EIS (RMP), Appendix 3.
	Kent Connelly, Coalition of Local Governments	The project area is comprised of 70 percent public lands, 5 percent lands owned by the State of Wyoming and managed by the Division of State Lands, and 24 percent private lands. EOG proposes to develop up to 605 new oil and gas wells from an estimated 455 well pads as infill, exploratory, or step-out wells to all productive formations. Associated facilities include roads, well pads, and gathering pipelines. Wells would be drilled using a combination of vertical, directional and horizontal drilling techniques. An estimated 96% of all new vertical wellbores would be located on new well pads; approximately 54% of all new horizontal or directional wells would be located on new well pads. EOG's plan of development is to drill wells at the rate of approximately 60 wells per year over 10 years. The EIS will need to consider these similar actions in the cumulative effects analysis. There is a significant inconsistency as to the number of wells to be analyzed in the BLM publications regarding the proposed action. The BLM news release lists the number of wells as 604 and says 400 additional wells will be analyzed. The Federal Register notice does not refer to these 400 wells but states that an additional 175 wells will be analyzed as a separate alternative. 74 Fed. Reg. 38466 (Aug. 3, 2009). The Scoping Notice identifies 384 additional wells. These inconsistencies must be clarified. A number of operators within or near the project area are also expected to drill and develop additional natural gas wells within the reasonably foreseeable future. BLM will analyze these potential wells in a separate alternative and address them in the cumulative effects portions of the EIS.
	Kent Connelly, Coalition of Local Governments	**Cooperating Agency Fragmentation** Of major concern is that BLM has chosen to meet individually with the cooperating agencies, rather than as a group. This is contrary to standard BLM cooperating agency practice and denies the cooperators the opportunity to discuss, address and potentially resolve amongst themselves resource concerns within their areas of expertise. By denying meaningful cooperating agency consultation on a collective scale and fragmenting the process, BLM is unnecessarily lengthening the time it will take to complete the EIS, adding to its cost, and subjecting the EIS to preventable legal challenge. This has been demonstrated in other area project proposals where cooperator participation was conducted separately. In those cases, to its credit, BLM pulled the cooperators back together, and as a result, time and money were saved. In addition, when cooperators meet as a group, there is a level of trust and communication that does not exist when BLM selectively chooses to meet with individual cooperators. Trust and communication between cooperators is critical when a project moves into implementation. The CLG, therefore, respectfully asks that BLM involve all cooperating agencies in future meetings and consultations.
	Kent Connelly, Coalition of Local Governments	If there are any requirements imposed for directional and horizontal drilling, then the EIS must disclose and analyze the feasibility of such techniques within the project area.

Category	Commenter	Comment Text
NEPA Process		
	Kent Connelly, Coalition of Local Governments	If utilized, the need for and methodology of offsite and compensatory mitigation must be fully analyzed and disclosed in the EIS. In such case, habitat leasing on private property should be considered and analyzed as an alternative.
	Mike Smith, Questar market Resources, Inc.	Unfortunately, the approach leading up to the scoping notice did not seem to recognize this urgency. In the Notice of Intent. BLM states: "A number of other operators within or near the EOG project area expect to drill and develop approximately 175 natural gas wells within the reasonably foreseeable future. These possible wells would be analyzed in a separate alternative and addressed in the cumulative effects portion of this EIS document" In response to that statement, QMR reiterates the points made in the letter from Questar Exploration & Production to Field Manager Chuck Otto dated January 23, 2009. That letter was in response to two letters from the PFO soliciting "projects" from operators in the area, or other plans for the next ten to fifteen years. BLM's approach has presented companies with a Hobson's Choice, telling non-project companies that they could either provide estimates of future activity in the vicinity of the LBP area and he included in the LBP EIS, or forego any hope of obtaining permits during the many years it may take BLM to complete the FIS. QMR disagrees with this restriction. Nevertheless, that is the path BLM has taken, and therefore QMR advocates inclusion of QEP and Wexpro development predictions within the LBP EIS in a manner that will allow future APDs, permits and analyses to tier to the LBP EIS.
	Mike Smith, Questar market Resources, Inc.	QMR supports BLM moving forward with the LBP EIS in a timely and thorough manner. Unfortunately the "'timely" part of that equation has basically vanished as part of NEPA over the years. Given the importance of the production of natural gas to the nation, the state, local communities and the industry, it is imperative that the time it takes to complete an EIS be shortened as much as possible.
	Walt Gasson, Wyoming Wildlife Federation	The WWF remains in favor of the three alternatives presented in our comments dated 9.9.09:1. incremental or phased development alternative, 2. conservation alternative, and 3. shut-in alternative.
Oil and Gas Development		
	Cathy Purves, Trout Unlimited	Please provide the supportive data for the workover operations that have occurred in this Project Area in order to plan for future well workovers. Since this area is a historic gas and oil drilling area, such information should be readily available. Fracture information should also be included in this analysis in order to more effectively plan for water, chemical and produced water management.
	Cathy Purves, Trout Unlimited	In the 2008 Project Description (page 5) there is a section that discusses existing oil and gas development in the Project Area. This section has not been included in the December 2009 Project Description and should be. It is an important piece of information that affects the BLM's ability to adequately plan for and implement mitigation, future leasing, development, and monitoring. We request that this be included in the EIS and be thoroughly reviewed and analyzed.
	Claire Moseley, Public Land Advocacy	In accordance with BLM policy and BLM's own letters to the LaBarge Platform operators, new permits to drill (APDs) should be approved during preparation of the LaBarge Project EIS. PLA recommends that BLM work with project proponents to work out a reasonable interim drilling plan during the period required to complete the project analysis.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Approx 21% probably oil wells, may be a few of the remaining oil, but need better definition in project description. Because the wells aren't high producing, project viability will likely require getting power from existing lines and using existing infrastructure. Otherwise, not sure how the project would be economically feasible. However, this should be better defined in the project description.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	New federal regulations will likely mean there is no commingling product between wells on federal lands and wells on state/fee lands if the federal government believes it is not getting the appropriate percentage. WOGCC is trying to set up regulations where it would be possible to drill federal minerals from non-federal surface right locations to limit overall disturbances. Currently, WOGCC is trying to work this potential out with the federal government.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that WOGCC determines well spacing for each drainage on a per-well basis. WOGCC may change standards for spacing over time based on updated information. Well pad size is getting smaller over time.

Category	Commenter	Comment Text
Oil and Gas Development		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The LaBarge area is interesting in that there are some conventional (oil) wells. Most of these wells are working on old equipment, and are not necessarily kept up. One mitigation tool may be to improve the equipment on some of these old sites, both operating and plugged and abandoned sites. Which sites could be improved would need to be determined by a site-specific basis and the locations for improvements be identified by operators. BLM may need to require operator-proposed mitigation.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that WOGCC has different constraints for well drilling on state/fee lands than on federally managed lands.
Oil, Gas, Energy		
	Cathy Purves, Trout Unlimited	TU is committed to working toward supporting responsible energy development that protects wildlife and fisheries habitats yet allows energy development to be completed in a manner that leaves smaller footprints than what has occurred in our recent past. The LaBarge Platform Exploration Project is a large and ambitious project that will have impacts to our public and private lands, air, waters, and wildlife. It remains questionable whether permitting this project at this time, when energy prices are low, when there is an overabundance of natural gas, and when getting supplies to the market continues to challenge producers and regulators alike.
	Cathy Purves, Trout Unlimited	Renewable energy projects must also be included in this cumulative analysis, including wind development, geothermal development and potential solar development.
	Cathy Purves, Trout Unlimited	The drilling activity in western Wyoming and the West has slowed considerably based on economics and current market trends. In addition, there is a current oversupply of natural gas inventories in the United States and demand for natural gas is down (Bentek Energy Development Committee, Jackson, WY. September 14, 2009). The BLM is within their resource management prerogatives to pace this request for drilling until a thorough analysis of resource impacts and necessity is completed.
	Cheryl Sorenson, Petroleum Assocation of Wyoming	PAW would like to offer support and reference the letter completed by the project proponent EOG Resources, Inc., as well as the letter provided by party of interest ExxonMobil Production Company. Both of these letters address concerns and offer well thought out suggestions on this project.
	Claire Moseley, Public Land Advocacy	Natural gas plays a crucial role in meeting the nation's economic and environmental quality goals. Over the past few years, demand has increased while production has diminished. According to *Balancing Natural Gas Policy - Fueling the Demands of a Growing Economy*, a study prepared by the National Petroleum Council at the direction of the Secretary of Energy, "the recent tightening of the natural gas supply/demand balance places greater urgency on addressing the future of this important energy source and resolving conflicting policies that favor natural gas usage, but hinder its supply." The study also found that abundant natural gas resources exist in North American and identified the Rockies Region as the most prospective area for development of new natural gas supplies in that it is projected to contain nearly double the reserves of natural gas than both coasts and the Gulf of Mexico combined. Also, there has been a shift from oil to gas because as a clean burning fuel, natural gas can replace oil in many of its traditional uses, such as home heating fuel, power generation, industrial use and, to a limited extent, as a transportation fuel. The importance of bringing more natural gas to the North American market is crucial because in so doing future market volatility and fuel shortages can be diminished. Natural gas resources managed by the Pinedale Field Office are key to the success of the domestic natural gas program. In order to meet the challenge of a projected 30 percent increase in the demand for natural gas in the near future, it is crucial for BLM to facilitate responsible development of this resource, such as that found in Wyoming. A key factor that BLM must take into account is that over the past 10 years, the annual depletion rate of natural gas has grown from 16 percent to 28 percent. In other words, approximately 25 percent of existing natural gas production must be replaced each year **just to stay even**. While alternative energy sources, conservation of conventional energy sources and possible imports of liquefied natural gas will certainly play a role in meeting projected demands, the best short-term solution is for the federal government to take measures to foster responsible development of the domestic natural gas resource. Expanded development must occur on federal lands if the nation is to meet its short-term and long-term energy needs
	Dan Budd, Budd & Sons Land Co.	Need to require that drilling is logged from surface to TD.

Category	Commenter	Comment Text
Oil, Gas, Energy		
	David Bouquet, Exxon Mobil Production	ExxonMobil Production Company (EMPC), a division of ExxonMobil Corporation, appreciates this opportunity to provide comments to the Bureau of Land Management (BLM), Pinedale Field Office (PFO) concerning the Labarge Platform EIS (EIS). EMPC is a party of interest in the EIS because it operates the Tip Top and Hogsback federal oil and gas units. These units, comprised of approximately 47,000 acres of leases, have been in production since 1960.
	David Bouquet, Exxon Mobil Production	Exxon Mobil proposes to drill up to 214 horizontal wells over the next 15 years largely from existing disturbed areas. ExxonMobil's proposed development plan for the Tip Top and Hogsback Units incorporates strategies that reduce overall surface disturbance, improve air quality and minimize fragmentation of wildlife habitat while optimizing costs and extraction of hydrocarbon resources. They include: 1) use of horizontal drilling, 2) re-use of existing pads, disturbance and roads as much as possible, 3) use of multi-well pads and centralized infrastructure, and, 4) use of year-round drilling to reduce wildlife disturbance associated with multiple rig moves. The proposed development plan targets all Cretaceous formations and is a forward looking plan subject to numerous environmental and commercial conditions.
	David Bouquet, Exxon Mobil Production	EMPC believes hydrocarbon resources can be recovered without adverse impacts to other uses and users, wildlife and wildlife habitats, and environmental and aesthetic values as demonstrated by our proposed RFD. Subject to future economic and business conditions, EM plans to drill up to 214 horizontal wells from existing disturbed areas and 9 new wellpads. This RFD was developed through a combination of reservoir management, project planning and use of horizontal drilling techniques.
	David Bouquet, Exxon Mobil Production	The shaded row in the table below shows potential surface disturbance associated with the RFD. Net disturbance will be about 68 acres from new drilling, which is further reduced to 29 acres after soon-to-be depleted wells are plugged, abandoned, and the surface reclaimed. EM plans to build nine multi-well pads which will be partially reclaimed after wells are placed on production. Minor modifications to existing disturbed areas will be needed to make them suitable for 178 additional horizontal wells and other facility sites. Disturbance for roads are not identified, however, it is expected that existing roads will be used whenever possible. Flowline disturbances will be reclaimed 100% after installation. Two other approaches, with one well per pad for horizontal (162 acres) and vertical wells (631 acres), are shown above for comparison purposes. As before, existing roads will be used whenever possible and flowlines will be 100% reclaimed.
	Eric Dille, EOG Resources	Development May Continue in the Project Area During Preparation of the LBP Project EIS While BLM prepares the LBP Project EIS, it must allow development to continue within the Project Area. As BLM is aware, an EIS takes considerable time to prepare and implement. BLM should not halt development during this time, but should instead continue to permit individual wells subject to existing and site-specific NEPA analysis. BLM may also continue to authorize additional development under the categorical exclusions set forth in section 390 of the Energy Policy Act of 2005, Pub. Law. No. 109-58, 119 Stat. 747. Continued natural gas development in the Project Area will allow development to proceed more smoothly if BLM approves the project because rigs and labor will already be available in the Project Area. Furthermore, continued natural gas development in the Project Area will help ensure a stable local economy through consistent employment and steady royalty and tax revenues. EOG would like to work with BLM to develop an interim permitting and drilling strategy that is mutually acceptable to both parties.
	Joy Bannon, Wyoming Wildlife Federation	A shut-in alternative: The present lack of pipeline capacity along with the amount of production already in place across Wyoming means that the natural gas exported from our state is greatly devalued. This project will inevitably cause harm to wildlife, air, water, fisheries, businesses, recreation opportunities, and the local communities without even an argument to be made on how this proposed project would benefit Wyoming's economy. Analyze an alternative that would approve the exploration and drilling of one to three wells only and if productive, analyze the potential to shut-in these wells—stopping further production until a time when the state of Wyoming would derive better revenue from the project. This alternative should also include strict seasonal limitations and no winter drilling.
	Mike Smith, Questar market Resources, Inc.	The importance of natural gas cannot be overstated moving forward. If the twin goals of President Obama's energy policy are to increase our energy security and reduce our carbon dioxide emissions, then greater use of natural gas produced here in America by American companies hiring American workers and paying taxes in America, must be at the core of our efforts as a country. And federal lands managed by the BLM must be a part of meeting that necessary increase in demand for clean-burning natural gas. That is true as a legal imperative based on FLPMA, as well as a moral imperative. That is why it is so important that BLM move forward with processing project proposals as they are presented.

Category	Commenter	Comment Text
Oil, Gas, Energy		
	Mike Smith, Questar market Resources, Inc.	Questar Market Resources (QMR) explores for, develops and produces natural gas and oil in the Rockies and Midcontinent regions of the United States through its subsidiaries Questar Exploration & Production Company (QEP) and Wexpro Company (Wexpro). QMR appreciates the opportunity to submit these scoping comments regarding the LaBarge Platform (LBP) Project Environmental Impact Statement (EIS) as we have a significant presence in areas within and near the LBP project area, including leases in the Dry Piney Unit, Johnson Ridge and Birch Creek areas.
Out of Scope/Not Applicable		
	Bill & Martha Underwood	In closing I wish to convey several personal observations; our country needs to make the transition to renewable energy sources in the very near future. In order to preserve our natural heritage and insure adequate natural resources for future Americans we need to scale back traditional practices that exhaust basic resources such as arable land, clean water and the species diversities necessary to sustain the natural environment.
	Bill & Martha Underwood	I am not a big fan of the oil industry. Their lobby has promoted a very dangerous energy policy in this country for too long.
	Bill & Martha Underwood	I will not concede to any justification for oil extraction at the expense of further habitat destruction or contamination. Natural gas extraction is somewhat less threatening to the environment but is still worrisome.
	Cathy Purves, Trout Unlimited	The Enron Oil and Gas Company East LaBarge Infill Drilling Project EA (1992) is outdated and updates to this must be made.
	Cathy Purves, Trout Unlimited	TU has participated in the BLM planning process for this proposed project since the first call for scoping and the hosting of the open houses in late summer and fall of 2009. We offer these second set of scoping comments to strengthen our commitment as interested parties in the long term management of these two resource areas and to offer additional considerations and comments on the proposed project itself.
	Cathy Purves, Trout Unlimited	Trout Unlimited (TU) has a strong base support of hunters and anglers who depend on Wyoming's natural resources for their multi use activities both now and in the future. Members of our organization value these public lands that sustain some of the cleanest water, the healthiest habitats and finest fishing and hunting in North America. TU is composed of more than 150,000 members and has dedicated staff and volunteers working toward the protection of sensitive ecological systems necessary to support robust native and wild trout and salmon populations in their respective ranges. In Wyoming, TU's membership of more than 1,500 anglers spend countless volunteer hours each year working on projects that meet the mission of the organization. Within both the Pinedale resource planning area and the Rock Springs resource planning area, an energetic team of individuals and the Pinedale and Flaming Gorge TU Chapters have helped restore, protect and maintain native trout habitat in these areas for generations to come. Equally important, TU has participated in the many local and regional BLM planning processes, offering our comments and suggestions toward the many land and resource management issues occuring in both resource planning areas. We support responsible energy development that incorporates coordination among resource management agencies, the protection of wildlife and fisheries resources, and the public's desire to maintain a heritage of hunting and fishing in landscapes that are not rendered uninhabitable because of misguided public land uses.
	Cheryl Sorenson, Petroleum Assocation of Wyoming	PAW supports this project and the continuation of Oil and Gas leasing on Federal Lands in Wyoming. The continuation of these activities, increases revenues to the counties, ands economic vitality to the State of Wyoming while enhancing the security of our country and filling our nations coffers.
	Cheryl Sorenson, Petroleum Assocation of Wyoming	The Petroleum Association of Wyoming (PAW) would like to thank the Pinedale Bureau of Land Management for the opportunity to comment on this project. PAW is Wyoming's largest and oldest oil and gas organization dedicated to the betterment of the state's oil and gas industry and public welfare. PAW members, ranging from independent operators to integrated companies, account for approximately ninety percent of the natural gas and two-thirds of the crude oil produced in Wyoming. This Environmental Impact Statement (EIS) will directly affect members of PAW.
	Cooperating Agency Meeting with Towns of Big Piney and Marbleton	The benefits to communities are greater than the environmental impacts.
	Cooperating Agency Meeting with Towns of Big Piney and Marbleton	The people of Wyoming are the best stewards of the state and will take care of it. Big Piney, Marbleton, and LaBarge have been able to take care of themselves without asking for outside help to survive. The towns are self-sufficient.

Category	Commenter	Comment Text
Out of Scope/Not Applicable		
	Cooperating Agency Meeting with Towns of Big Piney and Marbleton	They are concerned that people who do not live in the area and are unaware of the issues of the area will comment on a project like this without concern for the local people.
	Cooperating Agency Meeting with Towns of Big Piney and Marbleton	The proposed project is great, but there is concern that the oil and gas companies will not implement it due to the timeframe required and complications from BLM.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Based on previous projects, concerns for residents include post oil field development issues. This includes the depth of setting surface casing for production wells. What are requirements for depth, how determined, who responsible for determination, guidelines/procedures followed for determinations. Not sure if there is consistency between WOGCC and BLM requirements, but important to try to make consistent for public understanding & resource protection.
	Jay & Sandy McGinnis, J.F. Ranch Inc.	Although they are not a part of this project, the Anticline and Jonah Field producers, particularly Shell, should participate in this fund, due to their extensive truck traffic accessing the Calpet L.L.C. facility.
	Jay & Sandy McGinnis, J.F. Ranch Inc.	In closing I would like to thank E.O.G, Chevron, and Exxon for allowing us to establish livestock water accesses at their various fresh water sources. These sources have been every helpful in distributing livestock and is some cases have been the only available water.
	Lauren DeGraffenreid	I am writing to vehemently protest the leasing and proposed development of the La Barge Platform Exploration and Development Project Area. Not only will the proposed action negatively affect our already drastically endangered wildlife and further corrupt already noxious air and groundwater deposits; it will permanently poison the sociological makeup of our home. I am twenty-three years old. As a lifelong resident and avid outdoorswoman, the quality of our natural resources is of paramount importance: when they're gone, so am I. And I am not alone--far from it. A generation of my fellow citizens have left Sublette and its surrounding counties, sought higher education, and considered returning. For most of us, however, the rapidly degrading landscape and even more rapidly degrading cultural diversity of this place has persuaded us to invest our time and resources elsewhere. In some cases, our parents have literally begged us not to waste our lives here. Put bluntly, your youth are leaving, and soon, there will be no one left but the imported masses of rig workers your lax environmental policies have so warmly invited. Surely you remember the case of the visiting dean of a prominent US university, whom Patio Grill waitstaff refused to serve due to the color of her skin. Do you really believe that this is the sort of place an educated young man or woman will proudly call home? The sort of place in which we would invest our considerable economic resources? The place we would raise our children? If so, you are sorely mistaken. Among Pinedale High School's alumni, the very word 'Pinedale' has become code for bigotry, ecological blindness, and greed. You allow yourselves to be lied to by rank profiteers: you don't even know the composition of the fraccing fluid you allow these companies to pump into our aquifers. You don't appear to care that all-season drilling has severely altered the migration routes of our wildlife. Nor does it seem to bother you that our air quality has become so poor that children, expectant mothers, and athletes are encouraged to avoid stepping outside on certain winter days. And so, we, the youth of Pinedale, tell our friends and colleagues to avoid this place, principally from sheer embarrassment. You, sirs and madams, are a laughingstock. And will remain so unless you work hard to withdraw these leases. Because if you don't, Pinedale will become just another ghost town--just another nowhere pit stop for tourists on their way to Yellowstone. And you will be directly responsible.
Partnerships/Cooperative Relationships		
	Claire Moseley, Public Land Advocacy	The role of PLA and PAW is to help our members work together in finalizing the scope of the project and to develop an agreement among the operators for financing the project EIS as well as how they will communicate. Once the project proposal is finalized and procedures are established, we will only be involved at the specific invitation of our members. I am surprised to learn that BLM has indicated its objection to the involvement of PLA and PAW in this process. In the 31 years I have been working these types of issues; my involvement has never, ever been questioned. The association's role is to facilitate communication between the operators and BLM so that a reasonable approach can be reached. It is not only advantageous to the operators but also to BLM. I would also appreciate being contacted about such an issue rather than having to hear it second hand.

Category	Commenter	Comment Text
Permits/Special Uses		
	Bruce Pendery, Wyoming Outdoor Council	BLM's standard lease form, and again its 3101.1-2 regulation, also make it clear that BLM must minimize impacts to big game and sage-grouse before it can authorize operations in the LaBarge Platform Project area. Under the standard lease form, the BLM has made any rights it has granted "subject to" applicable laws,(3) terms, conditions, and stipulations in the lease,(4) regulations and formal orders in effect when the lease is issued,(5) regulations and order issued afterward, if not inconsistent with lease rights and provisions in the lease,(6) specific, non-discretionary statues,(7) and reasonable measures.(8) The sum total of these requirements that operations have been made subject to are that impacts must be minimized. Section 6 of the standard lease form calls for special mention. Under this provision of the lease, the lessee "shall conduct operations in a manner that minimizes adverse impacts to the land, air, and water, cultural, biological, visual, and other resources, and to other land uses or users." So again impacts must be reduced to the smallest possible degree. And were BLM to assert that the 3101.1-2 regulation trumps the lease terms, we would note that BLM itself recognized when it promulgated the 3101.1-2 regulation that "the authority of the Bureau to prescribe 'reasonable,' but more stringent, protection measures is not affected by the final rulemaking." 53 Fed. Reg. 17340, 17341 (May 16, 1988). So the requirement to minimize adverse impacts found in the standard lease form remains fully operative. *[footnote]* (3)BLM Standard Lease Form 3100-11. (4)*Id.* (5)*Id.* (6)*Id.* (7)43 C.F.R. § 3101.1-2. (8)*Id.*
	Bruce Pendery, Wyoming Outdoor Council	Given these requirements to "minimize" impacts the BLM must ensure that the repeated statements in the RMP that impacts will be minimized are given full effect. The BLM must ensure that the LaBarge Platform Project reduces impacts to big game and sage-grouse to the "smallest possible amount, extent, size, or degree." Only this will meet the BLM's legal obligations, under both the RMP and these other sources of authority. We would note that this is a substantive obligation – the obligation to minimize impacts is emphatic, clear, and stated in numerous sources of authority. Nor is this requirement a mere "procedural" or "analytical" requirement, which may be all that the National Environmental Policy Act (NEPA) requires; instead the obligation to minimize impacts is a substantive obligation that applies *in addition* to any NEPA analytical obligations.
	Bruce Pendery, Wyoming Outdoor Council	The BLM's regulations at 43 C.F.R. Part 3160 contain numerous provisions requiring environmental protection before oil and gas development can occur. See 43 C.F.R. Part 3160 contain numerous provisions requiring environmental protection before oil and gas development can occur. *See* 43 C.F.R. §§3161.2, 3162.1, 3162.5-1(a), 3162.5-1(b). Here we will focus on the provisions at 43 C.F.R. § 3162.2, which specifically applies to the responsibilities of the authorized officer. The authorized officer is "directed" to, among other things, "require that all operations be conducted in a manner which protects other natural resources and the environmental quality" and to determine prior to approving operations that "the proposed plan of operations is sound from both a technical and environmental standpoint." *Id.* Perhaps more to the point, in the BLM's leasing regulations it is made clear that the right to extract oil and gas is made "subject to" reasonable measures that are necessary to "minimize adverse impacts to other resource values…" 43 C.F.R. § 3101.1-2. Thus, again, it is clear that before the BLM can approve the LaBarge Platform project it must have minimized the impacts of the project, meaning it has reduced impacts to the smallest possible degree.
	Bruce Pendery, Wyoming Outdoor Council	In addition, the Interior Board of Land Appeals (IBLA) decisions in *Yates Petroleum Corp.,* 176 IBLA 144 (2008) and *William P. Maycock et al.,* 177 IBLA.1 (2009) make it clear that the old standard sage-grouse stipulations are no longer acceptable. In *Yates* the IBLA emphasized that BLM can impose requirements that are more stringent than the two standard stipulations even if there is no stipulation in place specifically reserving this authority, because of the authority given to BLM by a wide range of other laws (many of which were reviewed above). 176 IBLA at 155-56. And as the IBLA recognized in *William P. Maycock* "[i]t is contradictory for BLM to rely solely on those [old] mitigation measures in issuing an [environmental assessment] and [finding of no significant impact] at the same time that it acknowledges the validity of more recent research that demonstrates that those mitigation measures are not as effective as originally anticipated, and, indeed, has acted on the basis of more recent research in another comparable situation to impose more stringent mitigation measures in two [environmental assessments]." 177 IBLA at 19. Thus, we believe it is clear that requirements that are more stringent than the two standard old stipulations must be imposed if impacts to sage-grouse from the LaBarge Platform Project are to be minimized, as required by numerous lines of authority.

Category	Commenter	Comment Text
Permits/Special Uses		
	Bruce Pendery, Wyoming Outdoor Council	Regulations that often seem to be overlooked are found at 43 C.F.R. § 2920.7. These regulations govern the terms and conditions that must be contained in any BLM land use authorization. Among other things they require that any land use authorization shall contain terms and conditions that "[m]inimize damage to scenic, cultural, and aesthetic values, fish and wildlife habitat and otherwise protect the environment." *Id.* § 2920.7(b)(2).
	Bruce Pendery, Wyoming Outdoor Council	Potential protections to be afforded to the sage-grouse call for special mention in this regard. At this point it is beyond dispute that the standard old stipulations that prohibit development within one-quarter mile of a lek and that seek to protect nesting habitat within two-miles of a lek during certain time periods are not effective. They do not minimize impacts and their use has not prevented declines in sage-grouse populations. Thus, application of these limitations does not meet the BLM's obligation to minimize impacts. Recent support for this is provided in the U.S. Department of Energy report regarding wind energy and sage-grouse, available at http://www.pnl.gov/main/publications/external/technical_reports/PNNL-18567.pdf. We particularly direct the BLM to pages A.2 and A.3 where the studies of sage-grouse impacts resulting from oil and gas development (including the Holloran study) are reviewed and the ineffectiveness of these old stipulations is documented. The Wyoming Game and Fish department through its new mitigation measures available at http://gf.state.wy.us/wildlife/wildlife_management/sagegrouse/FINALStateLandCoreAreaSageGrouseStips731208.pdf had also made it clear that enhanced levels of stipulation are required to protect the sage-grouse. Given the tenuous status of sage-grouse populations in the West and recent declines in Wyoming's own grouse populations, we urge the BLM to require more stringent mitigation measures for the sage-grouse so as to ensure that it meets its obligation to minimize impacts.
	Bruce Pendery, Wyoming Outdoor Council	At least two provisions in the Federal Land Policy and Management Act (FLPMA) and the Mineral Leasing Act reinforce the BLM's obligation to minimize environmental impacts. The well known prohibition on authorizing actions that would cause unnecessary or undue degradation of the public lands reinforces the need to minimize environmental impacts. 43 U.S.C. § 1732(b). In addition, the Mineral Leasing Act provides that BLM shall regulate oil and gas surface-disturbing activities and shall determine actions "required in the interest of conservation of surface resources." 30 U.S.C. § 226(g). While neither of these requirements may specifically require minimization of impacts they support this need. "Undue" means "exceeding what is appropriate or normal; excessive." The AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1878, (4TH ed.). Degradation means the act of degrading and degrading means tending or intended to degrade, which takes one to the definition of "degrade," which among other things means "[t]o reduce in worth or value." *Id.* At 478. Thus, under FLPMA the prohibition on causing undue degradation serves as a prohibition on excessive actions that reduce the value or worth of the resource of concern. Or, as recognized by the court in *Mineral Policy Center v. Norton,* 292 F.Supp.2d30, 42 (D.D.C. 2003), undue degradation represents "excessive" impact or actions that "harm" the public lands. The BLM must ensure in its approval of the LaBarge Platform Project that this standard is met. The word "conservation" means, among other things," "[t]he protection, preservation, management, or restoration of wildlife and natural resources such as forests, soil, and water." The AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 391 (4TH ed.). Again, this reinforces and supports the need to minimize environmental impacts in order to meet the Mineral Leasing Act requirement to regulate oil and gas development "in the interest of conservation of surface resources." In addition to these provisions, the definition of "multiple use" in FLPMA also reinforces the need to minimize impacts. Among other thing, managing for multiple uses requires the BLM to engage in "harmonious and coordinated management" that does not cause "permanent impairment of the productivity of the land." 43 U.S.C. § 1702©.
	Jim Montuoro, Wyoming Department of Transportation	The Wyoming Department of Transportation (WYDOT) has no objections to this project. However, any work that is conducted with WYDOT right of way, such as utility crossings, fence modifications, highway approaches, etc., will require a license from WYDOT. If the project creates adverse impacts on the highway system, those impacts must be mitigated by EOG Resources.
	Jim Montuoro, Wyoming Department of Transportation	Any work done within the Wyoming Department of Transportation right of way on the state highway system will requrie a permit. This work includes, but is not limited to, highway approaches, utility crossing, oversize/overweight loads and fence modifications. Any questions regarding highway work or encroachments can be directed to me.

Category	Commenter	Comment Text
Permits/Special Uses		
	Todd Parfitt, DEQ	Discharge Permit. Any discharges to "waters of the state", including discharges from cofferdam dewatering, discharges from hydrostatic pipeline testing, or discharge of other waste waters must be permitted under the Wyoming Pollutant Discharge Elimination System (WYPDES) program. This program is part of the federal Clean Water Act but is administered by the WQD. For clarification waters of the state include rivers, streams, dry draws, wetlands, lakes, reservoirs and even stock ponds. This permit will require some sampling and will incorporate effluent limits for any constituents of concern.
	Todd Parfitt, DEQ	Temporary Turbidity Variance. Wyoming has turbidity criteria for waters designated as fisheries or drinking water supplies. Any type of construction activity within these streams is likely to result in an exceedence of these criteria. However, in accordance with Section 23(c)(2) of the Chapter I Surface Water Quality Standards, the administrator of e Water Quality Division may authorize temporary increases in turbidity above the numeric criteria in Section 23 (a) of the Standards in response to an individual application for a specific activity. While it is not required to get this authorization, this project has the potential to exceed the turbidity criteria and a variance is recommended. An application must be submitted and a variance approved by the administrator before any temporary increase in turbidity above the numeric limits takes place. This process generally takes about 45 days.
	Todd Parfitt, DEQ	Section 404. While not a state permit, this project may require a Section 404 permit from the US Anny Corps of Engineers. Any time work occurs within waters of the U.S. a 404 permit may be required. Additionally, a number of activities such as dam construction will require Section 401 certification from the WQD.
	Todd Parfitt, DEQ	Spill Reporting. Chapter 4 of the DEQ Water Quality Rules and Regulations requires that tile WQD be notified of spills or releases of chemicals and petroleum products. The EIS should reiterate this and explain how soils, groundwater and surface water impacted by spills, leaks and releases of chemicals, petroleum products and produced water will be restored.
	Todd Parfitt, DEQ	There are several permits and other requirements that may apply to the project, depending on the eventual scope of the project.
	Todd Parfitt, DEQ	Storm Water Associated with Construction Activities. This permit is required any lime a project results in clearing, grading, or otherwise disturbing one or more acres. The disturbed area does not need to be contiguous. The permit is required for surface disturbances associated with construction of the project, access roads, construction of wetland mitigation sites, borrow and stockpiling areas, equipment staging and maintenance areas and any other disturbed areas associated with construction. A general permit has been established for this purpose and either the project sponsor or general contractor is responsible for filing a Notice of Intent (NOI) and complying with e provisions of the general permit. The NOI should be filed no later than 30 days prior to the start of construction activity.
Planning Processes		
	Cathy Purves, Trout Unlimited	We also urge the BLM to implement a balanced multiple use management application which the BLM is required to consider.
	Cathy Purves, Trout Unlimited	The Coordinated Activity Plan for the Big Piney/LaBarge Area Environmental Assessment (1991) is also outdated and no longer can be applicable for this project. Again, this project should be delayed until an updated CAP can be undertaken.
	Cathy Purves, Trout Unlimited	Please make sure that the Project Plan conforms to the NEPA "*Guidance on Mitigation and Monitoring*" memorandum that is in draft form at this time but will provide substantial guidance by the time this project is approved (see Memorandum on *Draft Guidance for NEPA Mitigation and Monitoring*, February 18, 2010).
	Cathy Purves, Trout Unlimited	We ask that the BLM consider slowing the pace a bit on permitting this project. We have identified many management issues that need to be addressed before this project should be approved, including updating more than 3 applicable plans to be used as conformance support.
	Cathy Purves, Trout Unlimited	The referenced management documents that guide oil and gas extraction, in addition to the Pinedale RMP, are considerably dated. As mentioned in our September 2009 comments, we request that updated information be applied to all applicable NEPA documents for this management area. We realize that the LaBarge Platform Project EIS should represent an update to these outdated documents; therefore, we would expect more than a reference to using the information from these documents. For instance, data from the Big Piney/LaBarge Area EA (BLM 1991) does not include sensitive or threatened species consideration for species that are now under federal and state status (i.e., Colorado River cutthroat trout, Canada lynx, Grizzly Bear, Gray Wolf).

Category	Commenter	Comment Text
Planning Processes		
	Cathy Purves, Trout Unlimited	The Green River Resource Management Plan of 1997 will begin scoping for the new version in January 2010 (per BLM communication). Consideration for this revision should be included in the EIS discussion for this project and if significant environmental concerns surface, delaying this project's permit until the Green River FEIS is completed should be done.
	Cathy Purves, Trout Unlimited	The BLM must use updated resource management plans in their project analysis.
	Cathy Purves, Trout Unlimited	A Wildlife Mitigation and Implementation Plan should be developed for this area, specifically because lands within the project area contain crucial winter range for a significant number of big game species, migration corridors, threatened and endangered species, sensitive species , and species of special concern.
	Cooperating Agency Meeting with Sublette County and Others	The Pinedale RMP outlines a process for involving the affected communities. That process should be followed as laid out, and meetings with the local governments held, so that mitigation can be planned for upfront.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that WOGCC determines well spacing for each drainage on a per-well basis. WOGCC may change standards for spacing over time based on updated information. Well pad size is getting smaller over time.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	New federal regulations will likely mean there is no commingling product between wells on federal lands and wells on state/fee lands if the federal government believes it is not getting the appropriate percentage. WOGCC is trying to set up regulations where it would be possible to drill federal minerals from non-federal surface right locations to limit overall disturbances. Currently, WOGCC is trying to work this potential out with the federal government.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The initial decision on the EA [WY-100-EA09-20 Grazing EA] was remanded back, and there may be changes to some grazing/management plans - landscape scale planning effort. There will be a new EA in 2011.
	Eric Dille, EOG Resources	The LBP Project Conforms to Applicable Land Use Plans. The LBP Project conforms to the management prescriptions in the applicable land use plans, as required by the Federal Land Policy and Management Act (FLPMA) and its implementing regulations. See 43 U.S.C. § 1712; 43 C.F.R. § 1610.5-3 (2009). BLM manages most of the public lands and resources within the LBP Project Area under the direction and guidance of the BLM's Pinedale Resource Management Plan (RMP), EIS and Approved Record of Decision (ROD) (Nov. 2008). The current Pinedale RMP states: > The Approved RMP provides for accelerated development of known and existing oil and gas fields and resources, while maintaining viable wildlife habitats and open spaces in other areas. The Approved RMP also provides for site-specific management of intensive oil and gas development through field-level environmental analysis and decisions and implementation of operating standards and best management practices. *See* Pinedale RMP, pg. 1-8. Additionally, the majority of lands within the LBP Project Area are identified in the Pinedale RMP as an Intensively Developed Field. See Pinedale RMP, Map 2-9. The BLM has specifically recognized that lands within the LBP Project Area are suitable for intensive oil and gas development given past development and other resource values present in the area. See Pinedale RMP, pg. 2-21. The BLM has also recognized that lands outside the current Intensively Develop Field boundaries can be managed as an Intensively Developed Fields after a programmatic oil and gas NEPA project, such as the LBP Project EIS, has been completed. See Pinedale RMP, pg. 2-22. The BLM should specifically consider converting lands outside the current boundary of the Intensively Developed Field designation to an Intensively Developed Field in the pending LBP EIS. Additionally, lands within the southeast portion of the LBP Project Area are administered under the terms of the Record of Decision and Green River Resource Management Plan (Oct. 1997). The Green River RMP makes lands within the LBP Project Area available for oil and gas leasing and development. See Green River RMP, pg. 12, Map 13. Continued oil and gas development in the LBP Project Area is consistent with both the Pinedale and Green River RMPs.

Category	Commenter	Comment Text
Reclamation		
	Bruce Pendery, Wyoming Outdoor Council	The BLM's Gold Book "Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development – The Gold Book") provides binding guidance regarding BLM's oil and gas development decision-making. Under the Gold Book, the BLM must minimize undesirable impacts to the environment, the long-term health and productivity of the land must be assured, and the BLM and operator must minimize long-term disruption of the surface resources and use and promote successful reclamation. Gold Book at 2, 15. While the objective is to maximize oil and gas recovery, this is to be done "with minimum adverse effect on … other natural resources, and environmental quality." *Id.* At 37. Thus, it is clear that one source of authority requiring the BLM to minimize impacts from the LaBarge Platform Project is the Gold Book.
	Cathy Purves, Trout Unlimited	The LaBarge Platform Project Reclamation Strategy is still missing, as it was missing in the 2008 Project Description. Reclamation planning for habitat loss and disturbance is more than an important step in the oil and gas drilling program. It becomes extremely relevant when more and more habitat is scrapped away for well pads and roads, particularly in critical wildlife areas, and the reclamation revegetation efforts and reestablishment cannot keep up with the amount of lost vegetative cover. This is high desert country with little precipitation and regrowth takes many years for an area to return to productive function. It is not acceptable that this Project proposal is still without a Reclamation Plan. A Reclamation Plan is key to well permitting, mitigation efforts and plans, and species stability. Operators should be aggressive about developing a reclamation plan that, if implemented correctly, allows them the flexibility of development.
	Cathy Purves, Trout Unlimited	The incorporation of a Rollover System for habitat reclamation must be part of the proponent's plan. The use of such a program is showing success in the Pinedale Anticline and there should be no reason why it cannot be implemented in this project.
	Cathy Purves, Trout Unlimited	The project proponents should reclaim old abandoned well sites, utilize existing well pad sites, and conduct a thorough well activity inventory in the project area.
	Cathy Purves, Trout Unlimited	There is a lack of discussion on the current and old surface disturbance activity within this Project area. The BLM should incorporate the surface disturbance of old well pads that are being overhauled for additional drilling. Please address what will become of old roads and old wells that currently exist within this area.
	Cathy Purves, Trout Unlimited	For drilling operations, please include the reclamation rollover plan that prescribes no further drilling in sensitive areas until interim reclamation objectives on previous wells have been met.
	Cathy Purves, Trout Unlimited	Soil surveys for this area need to be updated and completed prior to permitting. Stockpiling topsoil for 40 years or even one year is no longer considered appropriate mitigation or appropriate reclamation science. The BLM should make sure that any soil stockpiling is completed using new standards, and compliance for this should be monitored.
	Cathy Purves, Trout Unlimited	A comprehensive LaBarge Platform Reclamation Plan must be developed and supported by all cooperating agencies. Certified professionals must be used for reclamation practices.
	Cathy Purves, Trout Unlimited	Please include a discussion on bond requirements for the final reclamation efforts.
	Cathy Purves, Trout Unlimited	According to BLM staff, there are a number of old abandoned well sites within the LaBarge Project Area. Prior to destroying any new wildlife habitat, the proponents should access the energy resource from these old sites, in addition to reclaiming areas surrounding these old sites, in order to decrease the amount of impact to important crucial wildlife habitat located in the area. The use of horizontal and directional drilling should be a condition of the permit, based on independent access analysis to these resources.
	Cathy Purves, Trout Unlimited	Please include a more detailed discussion of the plant mixtures, including shrubs, the operators plan on incorporating into their Reclamation Plan.
	Cooperating Agency Meeting with Lincoln County	Mentioned that the Moxa-Arch project reclamation resulted in old well pads being wildlife attractants relative to the surrounding landscape. Need to look at the landscape scale.
	Cooperating Agency Meeting with Lincoln County	Need to be careful that roads proposed for reclamation by BLM, or in the transportation plan being developed by the operators, does not infringe on roads the county has claimed. Need to ensure sufficient consultation with the counties.
	Cooperating Agency Meeting with Lincoln County	Look at the landscape scale planning perspective for reclamation.

Category	Commenter	Comment Text
Reclamation		
	Cooperating Agency Meeting with Sublette County and Others	Review of all reclamation standards up to this point, looking at what has worked and what hasn't. Examine reclamation success criteria. Look at non-native annuals, consider forb component for sage grouse, and be sure that sustainability is the goal.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	When looking at past performance for reclamation, it makes sense to fix non-reclaimed or poorly reclaimed sites. This could produce 'no net loss of function', and could be a good mitigation opportunity.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	'No net loss' could be discussed as an alternative, as a way to avoid mitigation issues. Could be achieved through reclamation, or through avoidance of human impacts. Better way to look at could be a „no net loss of habitat functionality'. Earlier reclamation is better since reclamation of older disturbances is more difficult.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Data gaps include surface water concerns associated with erosion and sediment loading to streams from roads (primary) and pipelines/pads. Discuss monitoring these concerns with game and fish - on same page with DEQ on erosion monitoring.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There could be an opportunity for some work through a 'no net loss' concept, concurrent with increasing standards associated with plugged and abandoned wells. There are currently approximately 3600 existing wells in the area, and an estimated 1500 that could be plugged and abandoned or brought up to a better standard of reclamation. This could include both gas and oil wells, noting that development of oil pads is dense in some areas.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The document should include definition of reclamation of well pads after construction, and identify reclamation of existing well pads where possible.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	It may be useful to inventory reclamation successes and also show current disturbances in the EIS, including range improvements, stock ponds, etc. Overall, try to identify the cause of existing issues.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Agree with the landscape/rangeland restoration approach. There are issues associated with Oil and Gas development as well as grazing.
	Dan Budd, Budd & Sons Land Co.	Concerned about reclamation.
	Dustin Child	Existing unnecessary roads within the development area should be reclaimed.
	Erik Molvar, Biodiversity Conservation Alliance	We are concern that the reclamation track record in this area is very poor, and even reclaiming wellfield disturbances back to historic BLM standards (which are very weak) is not occurring in neighboring areas such as the Jonah Field. Returning sagebrush habitat to its natural state is likely to take 100 years or more, and that assumes that sagebrush takes root relatively immediately, which is not typically the case in this area. We are concerned that this project will contribute to the spread of noxious weeds including halogeton and kochia, which have a history of proliferating in oil and gas fields in this part of Wyoming. Once these weeds take root on roads and wellpads, they begin to spread into surrounding areas not subjected to surface disturbance. Mitigation measures will need to be provided to ensure that the threat of noxious weeds is minimized.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	The need for proper rehabilitation on the disturbed lands because of pipelines, roads, and location. Maybe the oil companies could help develop water on acres that don't have adequate water to balance the area until rehab is completed.
	Jay & Sandy McGinnis, J.F. Ranch Inc.	Another issue I feel needs to be reviewed is the use of electric fencing for reclamation around new locations. It has been our experience that these fences are rarely, if ever, live and consequently cattle, particularly calves, crawl right through them and then can't get out. The fences need to be checked more frequently or another method of fencing should be used.
	Jill Miller, Wyoming Game and Fish Department	Lastly, I don't want to overstep my role, but I want to indicate that from a wildlife habitat perspective, improving currently "reclaimed" areas in the LaBarge, Calpet and Deer Hills areas is paramount if more land is going to be disturbed. In it's current condition, many old pads, pipelines and roadways are only growing rabbitbrush and weed species. Recovery of these pieces of land needs to happen if the footprint of disturbance is going to be increased again. Also, improving travel plans to eliminate many two-tracks and reclaim them with native shrub communities is important.

Category	Commenter	Comment Text
Reclamation		
	John Emmerich, Wyoming Game and Fish Department	Reclamation of Well Pads and Access Roads Requirement - Reclamation is not a "mitigation" measure, but rather a required BLM management action; There should be two types of Interim reclamation. One is reclamation that is needed for the interim when additional disturbance is forecasted for another well in the near future. If no other wells are planned then final-interim reclamation should be implemented. This is necessary since well pads will exist for decades. The site for a pad in production should be reclaimed to the smallest footprint possible to accommodate maintenance and should meet the same reclamation standards as final reclamation for bond release with the exception of final re-contouring.
	John Emmerich, Wyoming Game and Fish Department	Well Pad Fencing - All fencing should be wildlife friendly, and not restrict wildlife movements to daily and seasonal ranges. In general, we do not support fencing of reclamation sites. One of the purposes of reclamation is to provide forage for wildlife. Fencing should be permitted only if it can be demonstrated that wildlife are preventing successful revegetation. Reclamation fencing should be evaluated on a case by case basis.
	John Emmerich, Wyoming Game and Fish Department	A table with motorized road/trail densities would be of assistance in analyzing impacts to wildlife and addressing consistency with the PRMP. Some areas in the infill project area appear to have excessive road densities and appear redundant. Thus, we recommend closing and reclaiming duplicate road loops in an effort to reduce motorized road densities to lessen impacts to wildlife and crucial habitats.
	Kent Connelly, Coalition of Local Governments	The Reclamation Plan must be developed in close consultation and coordination with CLG members, affected livestock operators and landowners and address noxious weed control, wildlife habitat and livestock forage mitigation and site appropriate reclamation. Specifically, BLM must provide for consultation with the local conservation districts as to the approval of seed mixtures because they have jurisdiction by law, and their special expertise should be utilized at all phases of the project.
	Kent Connelly, Coalition of Local Governments	The EIS should also provide that if construction operations allow, EOG would use topsoil live haul, which is the direct placement of recently salvaged (not stockpiled) topsoil. Live-haul of salvaged soil eliminates the problems of maintaining soil viability while soil is stockpiled and can improve reclamation success. This avoids the problems of stockpiled soils and the related deteriorating fertility, micro-flora, and loss of seed viability.
	Kent Connelly, Coalition of Local Governments	The EIS also needs to disclose the impacts on existing roads that provide recreation and grazing permit access. A significant number of the roads provide access to grazing allotments and are necessary to maintain structures and manage livestock. Similarly, these other roads provide important recreation access almost year-round. Even if the roads also provide access for this project, they may well need to remain open to meet the access needs of other land users.
	Kent Connelly, Coalition of Local Governments	The EIS needs to provide that reclamation will commence as soon as it is determined which lands are not needed for production activities, and that mitigation will be determined and commenced at project initiation, rather than being withheld until some future date.
	Kent Connelly, Coalition of Local Governments	CLG recommends the adoption of a project specific noxious weed rehabilitation and control program. BLM must aggressively control noxious and invasive weeds with an emphasis on halogeton control. The Reclamation Plan must emphasize that control of halogeton is critical because of its toxicity to sheep and other livestock and when not controlled it becomes the dominant plant species on disturbed areas and has greatly reduced forage available for livestock and wildlife. It is a primary concern when addressing impacts to sage-grouse.
	Kent Connelly, Coalition of Local Governments	BLM should provide for immediate soil stabilization based on onsite soil survey, weather, slope and slope aspect. Disturbed areas not needed for long-term production operations or vehicle travel should also be recontoured, protected from erosion, stabilized and revegetated with a self-sustaining, vigorous, diverse, native or otherwise approved plant community sufficient to minimize visual impacts, provide forage, stabilize soils, facilitate capture of rainfall and snow and reduce runoff, and impede the invasion of noxious weeds and ensure establishment of natural plant community.
	Kent Connelly, Coalition of Local Governments	CLG supports an effective Reclamation Plan that is based on actual soil types, precipitation, and existing and ecologically sustainable vegetation. Reclamation in the high desert areas can be challenging and needs to be adjusted for each site. The reclamation plan needs to take into account all resource uses as well.
	Kent Connelly, Coalition of Local Governments	Project roads should be designed to meet required standards for safety and construction, to minimize impacts on soils and vegetation, and to allow for effective reclamation for those project roads that do not serve other purposes.

Category	Commenter	Comment Text
Reclamation		
	Kent Connelly, Coalition of Local Governments	Performance-based as opposed to prescriptive standards are better able to adapt to the variability of soils, precipitation, and vegetation found in the project area. The standards should be defined for the affected biological and physical resources as well as potentially conflicting land uses. CLG recommends that the project establish performance-based operating and reclamation standards that focus on site stabilization within the first year, with interim vegetation, and final reclamation with native species. Reclamation needs to be tailored to site activity, site capability, and adapt to what works.
	Kent Connelly, Coalition of Local Governments	After surface disturbance, the operator would do interim reclamation, to preserve soil and reduce erosion. The interim reclamation phase would use an initial mix of native and sterile seed mixes. Native species tend to be very difficult to establish and during the several years required, noxious weeds or invasive plant species can become established. Chemical treatments will kill noxious weeds and the native plants used in reclamation. In other project areas such as Hiawatha, BLM offers the alternative of sterile nonnative seed and native seed mixes to effect initial plant growth and to stabilize the site. CLG members note that this method was used to good effect on drill sites on the Bridger-Teton National Forest.
	Michael Smith, University of WY Renewable Resources, Dept. 3354	One of the most irritating aspects or developments such as this is that often sites are disturbed and because some activity continues, there is no reclamation effort and pad and roadsides are left bare to be occupied by cheatgrass, halogeton, or some other exotic species. I would hope that the operators could be persuaded to plant an adapted perennial that is less sensitive to planting technique and diversity requirements than the usual restoration seeding mixture. Crested wheatgrass is such a species being adapted and relatively easy to establish. This would provide site stability and prevent weeds until activity is completed and final restoration can take place.
	Todd Parfitt, DEQ	Because of the dry climate, short growing season and poorly developed soils, reclamation in southern Wyoming is often difficult, expensive and time consuming; therefore, there will likely be several years before sufficient vegetation is established to buffer overland flows and erosion potential from the disturbed areas. The reclamation plan must comply with the Wyoming Reclamation Policy and should be clearly described in the EIS, including measures to monitor success and revegetate where needed.
Recreation		
	Cathy Purves, Trout Unlimited	This assessment should include impacts to businesses that depend on the natural landscape and its wildlife and fisheries, including hunters, anglers, outfitters, guides, sporting goods stores, tourism businesses, etc.
	John Emmerich, Wyoming Game and Fish Department	Potential Impacts to Hunting Opportunity. The potential impacts to big game hunting recreation could be significant given the proposed intensity of development. An increase in miles of road will increase motorized access and expose big game animals to increased levels of stress throughout the year. Serious impacts will likely occur to localized sub-populations of the Wyoming Range mule deer herd, Sublette moose herd, and Piney elk herd that occupy the Greater EOG Platform Infill project area.
	John Emmerich, Wyoming Game and Fish Department	The potential impacts to big game hunting, especially to the Wyoming Range mule deer herd, will be significant if the BLM does not restrict motorized travel and decommission some user created trails and roads throughout the EOG Platform Infill Boundary in crucial wildlife habitats. In addition, the several hundred elk that spend the winter on the Riley Ridge/Rands Butte and Hogsback/Graphite Hollow winter ranges could abandon these native winter ranges and move to adjacent private properties where elk damage to stored crops and commingling with livestock could occur. Any development associated with this Infill Project should ensure there is a commitment from the operators to maintain elk at pre-development numbers on these winter ranges. It is essential that development not cause elk to abandon these native winter ranges.
	John Emmerich, Wyoming Game and Fish Department	Big game herd unit objectives are vital to the maintenance of big game populations for those herds that use BLM-administered lands. It is important that the BLM work with WGFD to ensure that population objectives are coordinated and maintained during the implementation of this project. The cooperative agreement between the agencies is designed to address certain land use management decisions to ensure that these outcomes do not have adverse impacts on WGFD established population objectives. Since this Infill could have significant impacts on mule deer population levels over time, we recommend that the BLM ensure that appropriate provisions are identified in the Final EIS that ensure reductions in these populations will not occur.
	John Emmerich, Wyoming Game and Fish Department	There is also a possibility that elk displaced from native winter ranges in Area 94 may travel south to winter ranges in Area 102. Should this level of elk displacement occur into the adjacent herd unit, the result could be reduced hunting opportunity in Area 94, and an increase in the number of elk above the desired population level in Area 102.

Category	Commenter	Comment Text
Recreation		
	John Emmerich, Wyoming Game and Fish Department	The Wyoming Range herd is arguably one of the most popular mule deer populations to hunt trophy class bucks during the fall hunting season in western Wyoming. During post hunt surveys the percentage of trophy class bucks observed is undoubtedly the highest in western Wyoming. In 2007 and 2008 over 50% of all bucks classified in this herd unit were documented on the Big Piney/LaBarge winter ranges. The highest percentages (59% in 2007) of trophy class bucks (i.e. antler spread measurements that exceed 25 inches) observed herd unit wide were documented on this winter range.
	John Emmerich, Wyoming Game and Fish Department	Other streams within the project that are of fisheries importance include North Piney Creek, Middle Pine and South Piney Creeks. Though these streams are not managed for native species they are important recreational fisheries for cutthroat trout, brown trout, rainbow trout, and brook trout. Native nongame species also occupy these watersheds. Issues related to this project that should be analyzed in the EIS include the following:
	Joy Bannon, Wyoming Wildlife Federation	A review by the Sporting Conservation Council, the federal advisory committee convened to address the facilitation of hunting heritage and wildlife conservation, indicates significant concerns: "With energy activities in the West increasing, concerns about maintaining game/wildlife species, populations and habitats at the wildlife-energy interface are also increasing. Given the magnitude of present and anticipated energy development in the West, it is doubtful that game/wildlife species and associated habitat values can be maintained without increased interagency collaboration, reducing on-site habitat impacts, and developing landscape-scale efforts to enhance habitats off-site." (Sporting Conservation Council, Draft White Paper: Oil and Gas Development and Wildlife Conservation, May 7, 2008). The Sporting Conservation Council identifies a number of goals to promote "improved collaboration and landscape-scale habitat efforts." The Draft White Paper recommends that federal land management agencies "use and apply landscape-scale assessment and state wildlife action plans to identify game/wildlife species needs and conservation priorities to conserve game/wildlife species, populations and habitats." *[footnote]* [5]United States Department of the Interior and United States Department of Agriculture, Sporting Conservation Council, Draft White Papers, pages 1 - 84, June 2008.
	Joy Bannon, Wyoming Wildlife Federation	If the LaBarge Infill project is developed for fluid mineral production, wildlife, wildlife habitats, and hunting participation will be affected. Impacts associated with oil and gas development on big game habitat (including crucial winter range and parturition areas) and migration, as well as on sage grouse populations are well documented in scientific literature. The Executive Order directs federal agencies not only to evaluate and consider impacts to wildlife and habitat, but also to "facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat." *Id*. § 1. The scoping notice and EOG's proposal is absent of any evidence that the BLM considered the mandates of Executive Order 13443 in deciding to move forward with the number of wells and well pads, as well as to consider winter drilling. The BLM should nonetheless consider the requirements of the order and perform all review necessary to comply with its mandates prior to this project moving forward.
	Joy Bannon, Wyoming Wildlife Federation	Our members are attracted to this region for its scenic vistas, recreation opportunities, to hunt big game like elk and mule deer, and to fish segments of water bodies such as the Green River, Middle Piney Creek and South Piney Creek. This natural Wyoming heritage supports abundant mule deer and elk populations that are strongly dependent upon the area during winter months and that also contribute to a traditional Wyoming business of outfitting.
	Joy Bannon, Wyoming Wildlife Federation	Numerous polls suggest that Wyoming residents are concerned about protection for special places from the impacts of oil and gas development. A 2006 Trout Unlimited survey poll was performed in the Rocky Mountain states, which found that 55% of the public valued their hunting and fishing activities away from motorized vehicles and roads. In a different Rocky Mountain survey, which was performed by Theodore Roosevelt Conservation Partnership in 2007, showed that 86% of the public favored limiting or banning energy development on certain public lands that are unique and have special fish and wildlife management resources that offer different or unique hunting and fishing opportunities. "Large majorities of sportsmen in the four states (Wyoming, New Mexico, Colorado and Montana) agree that the federal government should take more steps to protect fish and wildlife on lands that have been leased for oil and gas extraction (from 71% to 78%)." (Sportsmen for Responsible Energy Development, Survey Poll, April 2009) "Large majorities agree that the federal government should take more steps to protect hunting and fishing opportunities on lands that have been leased for oil and gas extraction (from 67% to 83%)." (Sportsmen for Responsible Energy Development, Survey Poll, April 2009)

Category	Commenter	Comment Text
Recreation		
	Joy Bannon, Wyoming Wildlife Federation	Potential loss of this revenue affects not only the state, but each county, town and the local businesses, such as the traditional and historic Wyoming business of outfitting that depend on these industries for their source of income. For many communities, these revenues are the major source of income. In addition, the Wyoming Game and Fish Department is funded by revenues from the sale of hunting and fishing licenses and it is not difficult to imagine what would happen to local communities and the state's wildlife management agency should the loss of revenue from these hunting, fishing, and tourism activities occur. The WWF believes that the BLM must update its economic analysis of hunting and fishing revenue and the potential loss of this revenue in light of the known impacts that will be experienced by big game.
	Joy Bannon, Wyoming Wildlife Federation	One of the fastest growing outdoor activities is wildlife watching and according to a United States Fish and Wildlife survey, 716,000 people participated in some variety of this (USFWS 2006 National Survey of Fishing, Hunting, and Wildlife Associated Recreation). The direct expenditures of wildlife watchers generated $122.6 billion in total industrial output resulting in 1,063,482 jobs and a federal tax revenue of $9.3 billion. Direct expenditures by wildlife watchers were for items such as cameras, binoculars and bird food, as well as trip-related expenses such as lodging, transportation and food. In 2006, nearly 71 million Americans (16 years of age and older) spent more than $45 billion observing, feeding, and photographing wildlife. (USFWS 2006 National Survey of Fishing, Hunting, and Wildlife Associated Recreation)
	Joy Bannon, Wyoming Wildlife Federation	Over 50 million U.S. citizens hunt and fish according to data from state game and fish agencies. In 2006, 87 million Americans enjoyed some variety of recreational outdoor activity relating to fish and wildlife. In Wyoming, during 2006 more than 320,000 people participated in fishing and hunting activities. The total of hunting and fishing recreation days in 2005 was 3,358,523. Based on the number of recreation days and average expenditure per day, hunters, anglers and trappers expended approximately $350 million in pursuit of their sport (WGFD, 2005). As mentioned above, the Wyoming Range mule deer herd winters in this project area; however, they summer and fall in the Bridger Teton National Forest of the Wyoming Range. Mule deer are a sure price when a hunter, resident and nonresident alike, is able to hunt in the Wyoming Range. Trophy size mule deer are known to inhabit here as few roads enable mule deer to grow big with little disturbance. In a typical year over 5,000 hunters pursue the deer in the Wyoming Range (WGFD, 2006; Dr. Harry Harju, 2007), and general licenses are also provided, which enable a variety of hunters to experience a fulfilling hunt. Tags will not be as plentiful for this herd if the LaBarge Infill project is allowed to be developed as the deer's survival rate during the winter will be greatly hindered.
	Joy Bannon, Wyoming Wildlife Federation	The Wyoming Wildlife Federation is a sportsmen and women organization with members who love to hunt and fish across our great state. Many of our members enjoy recreating in the project area for its big game and many streams. Wyoming has world-class wildlife and world-class mineral deposits. Our wildlife are extremely important to outdoor recreationalists and for our tourism industry. Hunting and wildlife watching are economically significant for Wyoming and the LaBarge Infill Project produces hunters from around the state and country. Hunting in this area is a fruitful business, both for the WGFD and for the surrounding communities. This business will be reduced if development is allowed because the big game populations will also be reduced.
	Joy Bannon, Wyoming Wildlife Federation	Air quality is important for tourism and recreation. Air, if clean, feels good to breathe, allows one to enjoy the scenic vistas without haze, and enables people to see longer distances. Dirty air impacts children with asthma and adults with any respiratory problems. Visitors come to Bridger-Teton National Forest (which is adjacent to the LaBarge Infill Project), Grand Teton and Yellowstone National Parks for their beauty and undisturbed landscape. Air quality is part of that experience.
	Joy Bannon, Wyoming Wildlife Federation	On August 16, 2007, President George W. Bush signed the Executive Order 13443, which directs federal agencies to "[m]anage wildlife habitats on public lands in a manner that expands and enhances hunting opportunities, including through the use of hunting in wildlife management planning." (Executive Order 13443, *Facilitation of Hunting Heritage and Wildlife Conservation*, § 2(c) Aug. 16, 2007) The Executive Order further requires that agencies "[e]valuate the effect of agency actions on trends in hunting participation and, where appropriate to address declining trends, implement actions that expand and enhance hunting opportunities for the public." Id. § 2(a). See also Bureau of Land Management, Memorandum from Ron Wenker, Acting Director, to State Directors Re: Review of Parcels Prior to Lease Sale (Feb. 13, 2009).
	Kent Connelly, Coalition of Local Governments	The LaBarge Project Scoping Notice does not identify impacts to recreation as an issue or concern. Under the Pinedale RMP, however, BLM must "maintain or enhance the health and viability of recreation-dependent natural resources and settings within the planning area." 2008 RMP at 2-25. The EIS, therefore, should thoroughly address impacts to recreation and provide for mitigation. BLM and EOG should work with the local cooperating agencies and the public in reducing adverse effects and conflicts.

Category	Commenter	Comment Text
Recreation		
	Lee Kreutzer, National Park Service	The proposal appears to have some potential to affect the Lander Cutoff of the California National Historic Trail. We ask that BLM identify potential effects to that and any other national historic trail in or near the project area and evaluate both direct and indirect impacts to the trail and its setting. It is always helpful for compliance documentation to include maps showing the location of the NHTs and related resources relative to project components such as wells and pipelines, and it is further useful to include visual analyses showing how structures would appear when viewed from critical points along the trail. Directional drilling for pipelines beneath intact trail segments is desirable whenever feasible.
	Stephanie Kessler, The Wilderness Society	We are very concerned with habitat loss and fragmentation and other impacts to big game, sensitive species and of course, sage-grouse in the area. The BLM's analysis needs to take a comprehensive look at the impact of this project in combination with other major developments in the area, particularly with the nearby Cimerex proposal and also the Jonah and Anticline fields. Mule deer and elk are of particular concern. The loss of habitat across the region, and displacement are affecting not only herd size, but also age make-up of the herds. The BLM needs to conduct an analysis of how this development affects the local outfitter and tourism-based businesses that depend upon healthy and productive big-game herds, and also older-aged animals for trophy deer and elk hunts.
	Walt Gasson, Wyoming Wildlife Federation	Outdoor recreation in this area will also be degraded due to the proposed project, as 800+ wells and associated infrastructure, traffic, and surface disturbance will diminish the potential for recreation. This will reduce hunting and fishing opportunities, and outfitting success. As the recreation and tourism decline, so does the economic benefit from those activities to businesses within the surrounding area
Riparian Areas		
	Cathy Purves, Trout Unlimited	As addressed in our September 2009 scoping comments, TU urges the BLM to require wooden or fiber matt systems in sensitive habitat regimes, including riparian and wetland areas. There are demonstrated success stories in the Jonah Field where EnCana applied mats to protect valuable sagebrush steppe habitat. Successful mitigation projects such as this one need to be incorporated into new mitigation plans as a method for protecting these habitats.
	Cathy Purves, Trout Unlimited	Most of the water bodies within this project area have important conservation populations of CRCT; indeed, some have genetically pure populations which are quite important in light of the fact that CRCT have been eliminated from 90% of its historic range (Evaluation Report; WGFD). The potential for contamination of the streams and rivers that contain CRCT in these areas remain high should energy development be allowed. Benzene contamination in oil and gas industrial water wells have been identified in 88 of 230 wells in the Pinedale Anticline area (EPA 2008) and despite testing, the source of contamination is still unknown (BLM 2008). TU supports the minimum buffer or setback to all riparian and stream areas of 500 feet. We feel that an increase to 1300 feet would be significantly more protective in specific case by case areas that have brood potential. By offering protection measures on these important fisheries habitat areas and working toward developing more intensive management action plans for areas that are being developed, it is possible to maintain available quality habitat within the Pinedale BLM region.
	Cathy Purves, Trout Unlimited	LaBarge Creek in particular should have a 1300 foot setback based on its importance to sustaining pure populations of CRCT. As of last year, considerable reclamation and restoration work was completed on this stream in order to enhance CRCT populations and future generations. LaBarge Creek is highly valued as crucial aquatic habitat for pure conservation populations of Colorado River cutthroat trout (CRCT). Keeping this stream free of contaminants from oil and gas operations is vital to the continued survival of this trout species. The CRCT is considered a Wyoming sensitive species, and has special status under the WGFD's management for conservation species.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There are locations on the Rock Springs side of the project area with rivers and culverts that would benefit from monitoring/improvements.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The primary concern for riparian areas is roads, especially new roads. If the project is not trucking water, disturbance associated with roads can be less. Therefore, would suggest encouraging the development of pipelines associated with this project, since they will have fewer impacts associated with erosion and air quality, and over time can reduce costs to operator. Also, BLM has a tendency to use large roads where smaller could suffice. Roads should be built to minimum standard necessary. Could also include speed limits so roads can lower standards.

Category	Commenter	Comment Text
Riparian Areas		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	For fisheries, 500 foot buffer for riparian & perennial streams is good; the buffer for 100-year floodplains is also good. The project will need something to control the potential for instream river migrations in order to avoid instream channel effects to native cutthroat trout during spawning and incubation times.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There is concern over sediment loads in streams. May need to consider willow planting to reduce sediment loads. Site-specific mitigation could be needed to avoid increasing sedimentation; however, there is no mitigation for conducting work during spawning periods. Other mitigation options would be on a site-specific basis determined on the ground.
	John Emmerich, Wyoming Game and Fish Department	No Surface Occupancy (NSO). No surface occupancy stipulations should be applied to riparian corridors and within areas designated as wetlands. In addition, at least a 500 foot buffer should be applied to development near riparian and wetland habitats. We recommend that areas that support sage-grouse leks, sage grouse nesting habitat, sage grouse winter habitat, and certain areas where big game concentrate each winter should receive an NSO designation.
	John Emmerich, Wyoming Game and Fish Department	In general, best management practices should be implemented to ensure that all sediment and other pollutants are contained within the boundaries of the work area. Equipment should be washed to prevent the spread of aquatic invasive species and disturbance to riparian habitats, wetlands, and perennial drainages be avoided. All construction activities such as well pads, roads, and pipelines can provide sediment to the river system that will likely be detrimental to aquatic resources.
	John Emmerich, Wyoming Game and Fish Department	It is essential that a comprehensive effort be devoted to road design and placement. Placement of roads in or adjacent to crucial riparian willow drainages could displace moose away from these sensitive areas, and may expose moose to illegal hunting. A mitigation measure to ensure big game are not displaced from habitats adjacent to roads and well pads could include closing new roads during hunting seasons and seasonal range closures. This mitigation measure should be evaluated in the EIS.
	John Emmerich, Wyoming Game and Fish Department	Equipment should be serviced and fueled away from streams and riparian areas. These areas should be located at least 500 feet from riparian habitats. Equipment staging areas should be at least 500 feet from riparian areas.
	John Emmerich, Wyoming Game and Fish Department	The proposed project should be designed in such a manner that will not cause big game displacement from these important seasonal ranges. This may include a development proposal that occurs in phases in order to minimize adverse impacts over time. The narrow winter habitat requirements of moose and their concentrated use of riparian willow bottoms will necessitate that these habitats are protected from development as much as possible. If some degree of protection is not provided to riparian willow bottoms, moose numbers and distribution will likely be adversely impacted by development and upgrade of additional miles of roads in the area especially in the Middle and South Piney Creeks, Beaver Creeks, and the lower slope of Deadline Ridge.
	John Emmerich, Wyoming Game and Fish Department	Impacts to riparian habitats and stream channel health.
	John Emmerich, Wyoming Game and Fish Department	Any pipelines that parallel drainages should be located outside the 100-year floodplain. Pipeline crossings of riparian areas and streams should be at right angles to minimize the area of disturbance.

Category	Commenter	Comment Text
Riparian Areas		
	Larry Svoboda, EPA, Region 8	EPA considers the protection, improvement, and restoration of wetlands and riparian areas to be a high priority. Wetlands increase landscape and species diversity, and are critical to the protection of designated water uses. Possible impacts on wetlands include damage or improvement to: water quality; habitat for aquatic and terrestrial life; channel and bank stability; flood storage; groundwater recharge and discharge; sources of primary production; and recreation and aesthetics. Road and pipeline construction, land clearing, and earthwork generally include sedimentation and hydraulic impacts which at some level may cause changes to surface and subsurface drainage patterns and, ultimately, wetland integrity and function. Riparian habitats, similar to wetlands, are important ecological areas supporting many species of western wildlife. Riparian areas generally lack the amount or duration of water usually present in wetlands, yet are "wetter" than adjacent uplands. Riparian areas increase landscape and species diversity, and are often critical to the protection of water quality and beneficial uses. Due to the time it can take to adequately reclaim some disturbed wetlands, it is suggested that BLM require mitigation of wetland disturbance during the project operating time, and that mitigation for y particular wetland or riparian area begin concurrent with the disturbance, or even prior to project construction, if possible. As studies indicate that traditional mitigation is generally not successful in fully restoring wetland function, BLM should consider requiring a minimum of two-to-one mitigation of wetland disturbance. EPA also suggests that the BLM require complete avoidance of disturbance to any fen wetland (a Category I resource). The NEPA analysis should identify specific mitigation requirements, and require any development proposal to generate a wetland mitigation plan. As the project proceeds, EPA encourages the BLM to require delineation and marking of perennial seeps, springs and wetlands on maps and on the ground before development so industry employees will be able to avoid them. We also recommend establishment of wetland and riparian habitat 100-foot buffer zones to avoid adverse impacts to streams, wetlands, and riparian areas.
Roads/Road Construction		
	Cathy Purves, Trout Unlimited	Implementation standards and reference to the Stormwater Pollution Prevention Plan is not mentioned in the Access Roads discussion. Please include analysis that assesses the construction of new roads and existing roads within this Project Area.
	Cathy Purves, Trout Unlimited	There exists a general lack of information with respect to road locations, miles of roads other than a broad “approximately 0.12 miles but a few individual roads may be up to 2 miles long…” (page 8). TU requests that more information is provided with analysis implications to wildlife, migration corridors, streambed sedimentation, stream channelization, water flow changes, runoff flow pattern changes from ditching and drainage creations, etc.
	Cooperating Agency Meeting with Lincoln County	Need to be careful that roads proposed for reclamation by BLM, or in the transportation plan being developed by the operators, does not infringe on roads the county has claimed. Need to ensure sufficient consultation with the counties.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Any analysis of culvert upgrades should look at stream flow and size. Some culverts around Rock Springs don't have any flow in low water.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Would prefer bridges for construction of new stream crossings.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	One Alternative produced by BLM or Industry could identify the culvert locations that would be most crucial for fixes or improvements.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The primary way of crossing perennial streams in the project area are by circular or partial circle culverts. Potential mitigation for impacts for new roads/stream crossings may be replacing existing circular culverts with partial circle (flat-bottomed) culverts.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	New roads would all be monitored.

Category	Commenter	Comment Text
Roads/Road Construction		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The primary concern for riparian areas is roads, especially new roads. If the project is not trucking water, disturbance associated with roads can be less. Therefore, would suggest encouraging the development of pipelines associated with this project, since they will have fewer impacts associated with erosion and air quality, and over time can reduce costs to operator. Also, BLM has a tendency to use large roads where smaller could suffice. Roads should be built to minimum standard necessary. Could also include speed limits so roads can lower standards.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Need to improve passage for Cutthroat trout and native non-game fish if new culverts are put in. Older culverts need improvements.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The advantage of a liquid gathering system would be to reduce truck traffic. Over time the benefits in constructing a pipeline and having it available is also economic.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that a known surface water issue includes concerns from permitees associated with potential redirection of surface water flows used for stock water due to road construction.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that the project description indicates there will not be many new roads.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There should be monitoring of culverts and roads of 5% slope or more for erosion to correct problems early for new construction. Need to maintain BMPs to limit sedimentation and protect aquatic species, may also include monitoring for previously build roads. A document on wind erosion is expected in front of WOGCC in April, and then will go to recommendations in documents for BMPs in December. These include some mitigation /monitoring methods that are working on Atlantic Rim.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	Cattle guards have to be mounted properly. If they are not maintained, the cattle cross them easily or they may get a foot caught and a leg broken have to be destroyed. These cattle guards need to be in good shape by turnout time on the allotment.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	A plan where roads would be minimized as much as possible.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	I am concerned about the increased traffic on the Calpet and Dry Piney rods. Many individuals think that fencing these roads would be the solution. All this would do, would create bottle necks and traps for the livestock and wildlife. It would also fence out availably of water in these pastures. Perhaps all we would have to do is the oil company's stress to the subcontractors to slow down and be more responsible.
	Jenny & Gary Amerine, Greys River Trophies	A road management program should be developed. Existing unnecessary roads within the development area should be reclaimed.
	Jim Montuoro, Wyoming Department of Transportation	The Wyoming Department of Transportation (WYDOT) has no objections to this project. However, any work that is conducted with WYDOT right of way, such as utility crossings, fence modifications, highway approaches, etc., will require a license from WYDOT. If the project creates adverse impacts on the highway system, those impacts must be mitigated by EOG Resources.
	Jim Montuoro, Wyoming Department of Transportation	Any work done within the Wyoming Department of Transportation right of way on the state highway system will requrie a permit. This work includes, but is not limited to, highway approaches, utility crossing, oversize/overweight loads and fence modifications. Any questions regarding highway work or encroachments can be directed to me.

Category	Commenter	Comment Text
Roads/Road Construction		
	John Emmerich, Wyoming Game and Fish Department	Recently with the use of advanced technology, researchers have been able to capture more accurate and quantifiable information on the affects of motorized travel on wildlife. The research of Haiganoush et al. (2006), Naylor (2006), Wisdom et al. (2004), Hebblewhite (2008), and Sawyer (2009) address the effects of different recreation and oil and gas development activities on elk and mule deer. Their findings should be considered and incorporated within the road system design, and the travel management plan, by depicting 500 and 1,000 meter buffers along all motorized routes where wildlife habitat effectiveness has been compromised. In their recent research, Haiganoush et al. (2006), found that elk responded to motorized All Terrain Vehicles (ATV) at distances of a 1000 meters and greater. Some significant responses were recorded at distances as far as 2 km. They also found elk response to ATVs was significantly smaller ... "when the distance to the nearest ATV route was larger (>500 m)". Given the above research results and in an effort to visualize potential impacts to wildlife (elk), we have asked that a 500 m and 1,000 m buffer be applied to proposed open motorized roads. Proposed road densities appear to pose a considerable impact on elk disturbance and security.
	John Emmerich, Wyoming Game and Fish Department	Roads should be constructed in accordance with standards described in the PRMP. A transportation plan should be developed by all operators (eg., EOG, ExxonMobil, Chevron, Wexpro/Questar) of the infill. A transportation plan should be a required and presented in the EIS. This transportation plan should be reviewed by the BLM and WGFD to ensure compliance with existing BLM road construction guidelines. In addition, an agency review of a transportation plan will allow a thorough evaluation of new road construction and elimination of redundant roads.
	John Emmerich, Wyoming Game and Fish Department	New road construction should be kept to a minimum within the project area, and adhere to guidelines developed specifically for this infill project and BLM land use planning documents. Motorized access to all proposed well pads should occur via existing roads if possible. For the development of this infill project an average open road density standard of 0.25 miles per square mile or equivalent road with I-year to 5-year variations of 0 to 0.5 miles of road per square mile.
	John Emmerich, Wyoming Game and Fish Department	All oil companies should avoid unnecessary surface disturbance and minimize impacts from well pad siting and road construction. New road construction proposals should be reviewed and approved by the BLM and proposed new roads should be sited using current GIS technology prior to agency approval. In addition, the construction of loop roads should be minimized.
	John Emmerich, Wyoming Game and Fish Department	Oil and gas companies should utilize satellite or other aerial imagery to digitally locate the existing infrastructure, including well pads, roads, and pipelines, and determine the most suitable locations for new surface disturbance.
	John Emmerich, Wyoming Game and Fish Department	All new road construction and well sites should adhere to the guidelines outlined in the BLM publication Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition, called the Gold Book (BLM and USFS 2007) and in BLM Manual 9113.
	John Emmerich, Wyoming Game and Fish Department	A table with motorized road/trail densities would be of assistance in analyzing impacts to wildlife and addressing consistency with the PRMP. Some areas in the infill project area appear to have excessive road densities and appear redundant. Thus, we recommend closing and reclaiming duplicate road loops in an effort to reduce motorized road densities to lessen impacts to wildlife and crucial habitats.
	John Emmerich, Wyoming Game and Fish Department	We recommend that all decisions related to the layout and design of the road system associated with this proposed gas development be coordinated among BLM and WGFD personnel. Issuance of rights-of-way permits and other legally binding authorizations from the BLM to construct access roads should only be approved with the stipulation that these roads be designed to avoid crucial habitats and result in minimal disturbance to wildlife and big game that currently use the proposed project area. The PRMP provides specific guidance with reference to transportation plans, timing of new road construction, road design, and reclamation standards.
	John Emmerich, Wyoming Game and Fish Department	We recommend that seasonal restrictions and reclamation on certain road systems within the infill project area be included to reduce wildlife impacts. Human use restrictions governing surface disturbance activities apply for elk calving areas (May I-June 30). We recommend that all motorized activities associated with a winter travel plan be prohibited in areas designated as elk parturition areas during the time frames outlined in this document.

Category	Commenter	Comment Text
Roads/Road Construction		
	John Emmerich, Wyoming Game and Fish Department	Motorized roads should only remain open to vehicles with the stipulation that these roads be designed to avoid crucial habitats and seasonal ranges, and result in minimal disturbance to wildlife and big game that currently use the project area. The PRMP provides specific guidance with reference to transportation plans and road design. Roads designated as open to motorized vehicles should be constructed in accordance with standards described in PRMP. Roads that are designated as open to motorized vehicles should reduce sedimentation into streams, provide buffers along live steams, govern steepness of slope grade, identify seasonal road closures, and adhere to wildlife seasonal range restrictions. We encourage the BLM to reroute/close routes that make extensive use of riparian and wetland systems. Such habitats provide important habitat for a myriad of wildlife species and compromise a low percentage of the Infill landscape.
	John Emmerich, Wyoming Game and Fish Department	It is essential that a comprehensive effort be devoted to road design and placement. Placement of roads in or adjacent to crucial riparian willow drainages could displace moose away from these sensitive areas, and may expose moose to illegal hunting. A mitigation measure to ensure big game are not displaced from habitats adjacent to roads and well pads could include closing new roads during hunting seasons and seasonal range closures. This mitigation measure should be evaluated in the EIS.
	John Emmerich, Wyoming Game and Fish Department	Potential Impacts to Hunting Opportunity. The potential impacts to big game hunting recreation could be significant given the proposed intensity of development. An increase in miles of road will increase motorized access and expose big game animals to increased levels of stress throughout the year. Serious impacts will likely occur to localized sub-populations of the Wyoming Range mule deer herd, Sublette moose herd, and Piney elk herd that occupy the Greater EOG Platform Infill project area.
	Joy Bannon, Wyoming Wildlife Federation	Along with habitat encroachment and drought, this project entails the construction of new roads. The current road system is already excessive; therefore, open road density standards need to be developed before the project begins. More roads and more access lead to environmental impacts to big game and their habitat. Roads will also lead to increased vehicle and animal collisions that not only are a safety concern for the workers and visitors, but are also a safety concern for the animals. A travel management plan is necessary to limit the number of new roads built and to close and reclaim unnecessary roads already partially or fully established. With roads and construction, invasive plant species such as cheat grass, knapweed, and thistle arrive and out-compete the native vegetation. This will cause an even greater number of acres unusable to big game, depleting even more their ability to survive within the LaBarge Infill project area.
	Joy Bannon, Wyoming Wildlife Federation	Since the current road system is already excessive, open road density standards need to be developed before the project begins.
	Kent Connelly, Coalition of Local Governments	CLG is concerned about the impacts of the proposed LaBarge infill project on all roads within, and near, the project area. Increased heavy truck traffic, for example, stresses road beds, drainage, and traffic capacity on roads that may already exceed their levels of service, adds to congestion in communities and contributes to dust, haze and air pollution.
	Stephanie Kessler, The Wilderness Society	Regarding habitat fragmentation, this area is already extremely "hammered" by roads and well pads. We wish to enter into the record for your information the attached report called Fragmenting our Lands: the Ecological Footprint of Oil and Gas Development. (Can be found at http://wilderness.org/files/fragmenting-our-lands.pdf). Although somewhat dated, this report conducted by TWS scientists is a spatial analysis of the oil and gas development footprint in the BigPiney LaBarge field. It found that there currently exists 8.43 miles of roads and pipelines per square mile of the field. This is in addition to the acreage impacted from well pads and facilities. BLM must analyze for the addition of impacts not just from new well pads, but also from the associated infrastructure such as roads and pipelines and human traffic and movement associated with these additions.
	Todd Parfitt, DEQ	In our experience, roads in areas of energy development are often designed and built for high volumes of vehicular traffic associated with well drilling, rather than the low volumes of traffic associated with production. It is not uncommon to have a wide crown and ditch road going into a producing well, even though the road has less than daily traffic. The BLM should analyze an alternative which minimizes surface disturbance and only builds roads to the minimal standard necessary for the production phase. Additionally, roads should be designed so that surface water for or across the road is not concentrated in a way that causes erosion. Runoff and erosion from roads, culverts and ephemeral channel crossings can compound and cause significant sediment loading as well as channel alteration both upstream and downstream of the crossings. It is important that all these locations are monitored so that any erosion can be mitigated before growing into larger erosion problems.

Category	Commenter	Comment Text
Seasonal Restrictions		
	Bruce Pendery, Wyoming Outdoor Council	The BLM should also consider the recent research of Hall Sawyer with regard to the advisibility of allowing year-long drilling. In his most recent study he states, "our results suggest that wintering mule deer are sensitive to varying levels of disturbance and that indirect habitat loss may increase by a factor of >2 when seasonal restrictions are waived." Sawyer H. et al. 2009. *Influence of Well Pad Activity on Winter Habitat Selection Patters of Mule Deer.* J. Wildl. Manage. 73(7): 1052-61. We ask the BLM to fully consider this most recent research. In addition, the BLM should consider full compliance with Appendices 5 and 12 in the RMP, Fluid Mineral Best Management Practices and Seasonal Wildlife Stipulations for All Surface Disturbing Activities.
	Bruce Pendery, Wyoming Outdoor Council	With respect to big game the following must be noted. It appears that BLM may consider allowing year-long drilling in this area, as it did on the Pinedale Anticline. The BLM must carefully consider whether this is appropriate. First, we must note this language from the Pinedale Anticline Supplemental Environmental Impact Statement Record of Decision. "The decision to grant relief [from seasonal stipulations] is unique to the PAPA, specifically the Core Area and the PDAs and will not likely be appropriate for other areas because of the level of existing development, the lease hold patterns, and the unprecedented voluntary level of cooperation that the Operators have provided for this development plan. Record of Decision Final Supplemental Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project at 24. In making the decision to grant this unprecedented waiver from long-stand policy, the BLM made it clear the decision was based on several unique conditions being in place – like the voluntary suspension of leases in a large area, the widespread use of pad drilling, and the establishment of a large mitigation fund. Before the BLM even considered allowing year-round drilling in the LaBarge Platform Project area, it must ensure that similar unique protections are put in place. In addition, the Pinedale Anticline project is premised on many unique features, such as the designation of a core area where intense development is allowed accompanied by a flank area where little or no development is allowed, the designation of special Management Areas in the flanks where additional enhanced requirements apply, the designation of a special River corridor management area, a limitation on the total number of well pads in the Pinedale Anticline Project Area, and a limitation of no more than one well pad per quarter section (160 acres). Until similar requirements are put in place for the LaBarge Platform project, relaxation of long-standing protections like the winter drilling limitations should not be considered.
	Cathy Purves, Trout Unlimited	Please include a discussion of the implementation of timing restrictions for leaving pipeline trenches open during construction. Leaving trenches open for any length of time provides the dangerous opportunity for cattle and wildlife to fall in, and due to the trench's typical narrow width, animals likely die.
	Cathy Purves, Trout Unlimited	The Project Description does not offer any supportive evidence as to why year-round drilling in sensitive and critical wildlife habitat is appropriate. In the original Scoping process in August 2009, documents submitted to BLM from one of the operators expected to participate in the Project Plans included a request for year-round drilling. That letter from ExxonMobil (ExxonMobil Production letter to Lauren McKeever, dated May 29, 2009 re:LaBarge Platform EIS, Tip Top/Hogsback Units) requested BLM approval for year-round drilling for up to 15 years. In this loosely called —pla" offered by ExxonMobil, the company describes its development strategy resting on two major assumptions: 1) BLM will approve year-round construction and drilling, and 2) future wells will be drilled as reservoir-specific horizontal wells ***which can later be recompleted, redrilled, or sidetracked in the vertical wellbore for shallower objectives*** (emphasis added). The letter then proceeds to contend (without proof) that year-round construction and pad drilling is —very effective for reducing wildlife disturbance" and using horizontal drilling techniques will expedite the efficiency and do less damage to wildlife and its habitat. The italicized bolded portion of ExxonMobil's number 2 assumption is important because ExxonMobil is saying that after the horizontal drilling exhausts the reservoir, they will then move on to the more invasive and acreage intensive vertical wellbore operations (estimated in this plan at 10 to 5 acre spacing). Thus, there is nothing gained by the approval of year-round drilling if it continues for 40-60 years (based on reservoir life and new well drilling technology) or longer.

Category	Commenter	Comment Text
Seasonal Restrictions		
	Cathy Purves, Trout Unlimited	The BLM should consider an alternative that does not include winter year round drilling. The proponents are claiming that winter drilling allows more efficiency in drilling, less wildlife impacts, and their ability to maintain a stable workforce. It should be contingent upon the companies to provide data supporting these claims, as it has been noted by local communities within Sublette County, Sweetwater County and Lincoln County that winter drilling did not necessarily mean benefits to these communities. Many companies lost employees because of the lack of desire to work in harsh winter conditions, unavailable housing opportunities, cost of living issues, and lack of work. Many bold claims were made by industry about lowering crime, stabilizing the work force, and impacting less habitat. We ask that the BLM provide the proof that these claims warrant their new request for winter drilling.
	Cathy Purves, Trout Unlimited	Winter drilling must not be allowed. Ongoing wildlife impact studies support the original conclusion that big game and sage grouse habitat would be affected by the large scale impacts associated with oil and gas development. Winter drilling, especially at the rate of this project's projection of 40 years, will affect the longevity of wildlife populations, based on these studies. Sage grouse are teetering on the brink of being listed and the BLM must make decisions that clearly take into account the effects that oil and gas development have on wildlife stability.
	Cathy Purves, Trout Unlimited	In our September 2009 comment submission, we ask that year-round drilling not be approved due to the overwhelming science that now affirms that impacts from year-round drilling to big game and sage grouse do negatively affect these populations (Sawyer, Hall and West, Inc. regarding the numerous mule deer studies in the Pinedale Anticline. 2000-2009; Wildlife Conservation Society studies on pronghorn impacts from oil and gas development; and Clayton Braun and Matt Holloran's studies on the greater sage grouse response to natural gas development, 2005-2009). TU requests again that the BLM deny year-round drilling in critical wildlife habitat and request that supportive data be supplied for the claims made by ExxonMobil that both wildlife and the human equation/communities will benefit (as they claim they have) by having year-round drilling.
	Cathy Purves, Trout Unlimited	Seasonal timing restrictions and/or limitations are only identified for big game and greater sage grouse. Other species need to be included in this discussion, including fish spawning periods for CRCT.
	Cooperating Agency Meeting with Lincoln County	Concerned with seasonal stipulations on drilling. This contributes to the boom/bust cycles in the local economy. Prefer that year-round drilling be allowed in order to stabilize the local economy.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The ID team discussed looking into effects of year-round drilling at the ID team meeting. Based on current information, the field office level does not see advantages to a year-round drilling scenario. The EIS should include at least one alternative without year-round drilling. The project area includes crucial winter habitat.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that seasonal restrictions on operation may not e effective since there are wells currently in operation. The seasonal stipulations would only apply to construction/drilling and not to operation.
	Dustin Child	Within the proposed development, as much area as possible each winter, should be closed to human presence and designated critical winter range.
	Dustin Child	I am concerned with the negative impacts drilling could have on the mule deer during the winter months. A large portion of the Wyoming range mule deer herd winter in the La Barge area. Drilling during the winter months could cause increased amounts of stress to the deer during a very vulnerable time during the winter months. Increase in truck traffic will also increase the amount of deer hit and killed on the roads.
	Dustin Child	Drilling activities should be phased. Winter activities should be held to a minimum and not allowed thru the entire development area each winter.
	Jenny & Gary Amerine, Greys River Trophies	Winter activities should be held to a minimum and not allowed through the entire development area each winter. Directional drilling and a Liquid Gathering System should be required of the developers during crucial winter months.
	Jenny & Gary Amerine, Greys River Trophies	Within the proposed development, as much area as possible each winter, should be closed to human presence and designated critical winter range.

Category	Commenter	Comment Text
Seasonal Restrictions		
	John Emmerich, Wyoming Game and Fish Department	No instream channel activity on Trail Ridge, North Beaver, South Beaver, Spring and LaBarge Creeks from June 1 - August 1 to minimize impacts to spawning and incubating native cutthroat trout.
	John Emmerich, Wyoming Game and Fish Department	There is sage grouse nesting and brood rearing habitat in the project area. The Western Association of Fish and Wildlife Agencies (WAFWA) have developed habitat management standards that govern the conservation of sage grouse habitat. These measures should be reviewed and adopted by the BLM for planning purposes for the proposed development. The BLM should have a record of all known raptor nest sites in the project area. We recommend that all wildlife stipulations outlined in the PRMP governing oil and gas exploration near key sage grouse habitats be implemented for this project. These stipulations include, but may not be limited to the following: • Prohibit surface disturbance or occupancy within a minimum of 0.5 mi of the perimeter of occupied sage grouse leks. • Avoid surface disturbing activities and geophysical surveys in suitable nesting and early brood-rearing habitat within 2 miles of an occupied sage grouse lek and within identified sage grouse nesting and early brood-rearing habitat outside the 2 mile buffer, from March l5 through June 30. This requirement should be stipulated as a seasonal restriction. Select sites for construction that will not disturb suitable nesting cover or brood-rearing habitats within 2 miles of an occupied lek, or within identified nesting and brood-rearing habitats outside the 2 mile perimeter. • From March 1 through May 15, avoid human and vehicular activity between 6:00 p.m. and 8:00 a.m. daily, within 0.25 mi. of the perimeter of occupied sage grouse leks. • Avoid disrupting auditory displays, from March 1 through May 15.
	John Emmerich, Wyoming Game and Fish Department	We recommend that seasonal restrictions and reclamation on certain road systems within the infill project area be included to reduce wildlife impacts. Human use restrictions governing surface disturbance activities apply for elk calving areas (May I-June 30). We recommend that all motorized activities associated with a winter travel plan be prohibited in areas designated as elk parturition areas during the time frames outlined in this document.
	John Emmerich, Wyoming Game and Fish Department	The proposed project area is used by many species of nongame birds and mammals. Consequently, all surface-disturbance activities associated with the proposed project should adhere to the appropriate timing and acreage restrictions outlined in the PRMP for raptor nest sites and riparian habitat. We recommend the BLM conduct raptor nesting surveys and consult with USFWS on the most recent approach used to model "risk" associated with individual raptor nests. This approach would aide in developing a comprehensive Avian Protection Plan.
	John Emmerich, Wyoming Game and Fish Department	Seasonal and Timing Restrictions. Restrictions for all human and surface-disturbance activities are outlined in the Pinedale Resource Management Plan. Human use restrictions governing surface disturbance activities should apply for big game crucial winter ranges (November 15 - April 30), and elk calving areas (May 1- June 30). We recommend that all activities associated with this project proposal be prohibited in areas designated as crucial big game winter ranges and parturition areas during the time frames outlined in the PRMP.
	Joy Bannon, Wyoming Wildlife Federation	Winter activities should be held to a minimum and development should not be allowed during the winter.

Category	Commenter	Comment Text
Seasonal Restrictions		
	Joy Bannon, Wyoming Wildlife Federation	*Winter Drilling.* Winter is a critical time for wild ungulates; therefore, crucial winter range for the most abundant big game species (pronghorn, mule deer, and elk) is often the focus of management and a criterion for analyzing the impacts of resources management on big game. Research has shown that timing limitations may not be achieving their desired results.(1) The LaBarge Infill Project wants to drill during the winter while this overlaps with big game crucial winter ranges and migration corridors that require timing limitations. This project, if allowed to drill during the winter, will be subjected to mineral development that will inevitably have a negative impact on the big game and their crucial ranges as seen in the Pinedale Anticline with a 46% decline in mule deer. This is of particular concern as associated human activity may negate the effectiveness of timing restrictions on drilling activities as a means of mitigation (Sawyer *et al.* 2006).(2) Sawyer *et al.* (2006) recommends that mitigation measures seeking to minimize disturbance to mule deer on winter range consider all human activity across the entire project area and not be restricted to the development of wells or to crucial winter ranges. The BLM should not focus solely on timing limitations in crucial winter ranges as the primary mitigation measure for big game and should absolutely not give an exemption to industry nor allow drilling during the winter. In addition to skepticism that timing limitations alone are sufficient to conserve big game populations once energy development exceeds a certain level, their effectiveness further decreases when exceptions are granted to industry, allowing them to enter and conduct activities on these crucial lands during restricted seasons. Because the BLM regularly grants exceptions to winter stipulations, the effectiveness of timing limitations to mitigate impacts from surface disturbing activities is unknown.(3) *[footnotes]* (1)The Wyoming Game and Fish Department considers anything more than four pads per section in crucial ranges for both mule deer and pronghorn to constitute "high" or "extreme" impacts to these habitats requiring mitigation measures in addition to seasonal restrictions. WGFD Recommendations at 11. (2)The RFD projects that spacing in the Moxa Arch/Green River Basin geologic area will range from 4 to 8 wells per section. Spacing for coalbed methane production will be 4 to 6 wells per section. Other unconventional gas resources would require 40-acres spacing (8 wells per section). Kemmerer RFD at 7-10 to 7-11. (3)Moreover, timing limitations impose no limit on human disturbances once oil and gas development enters the production phase. This further undermines their effectiveness. See comments of A. William Alldredge, Ph.D. on the Pinedale RMP DEIS.
	Joy Bannon, Wyoming Wildlife Federation	Within the proposed development as much area as possible each winter should be closed to human presence and designated critical winter range.
	Joy Bannon, Wyoming Wildlife Federation	Sage Grouse. The project area contains occupied Greater Sage-Grouse leks and wintering nest sites. Although the project area is not within Wyoming Governor Freudenthal's core area for Greater Sage-Grouse the idea isn't to ignore these populations outside of the core area. There is evidence of a long-term declining sage grouse population, and of lek abandonment. (Pinedale Anticline DSEIS at 3-115) The number of male birds attending leks that were heavily impacted by natural gas development "declined by 52%" from one year prior to well development through 2004. *Id* at 3-117 The work of Matthew Holloran on the Pinedale Anticline has also shown that existing oil and gas development is causing "yearling females [to] select nesting locations farther from haul roads and active drilling rigs, suggesting the long-term response of nesting females is avoidance of development areas [ ]."(4) *Id*. at 3-118. BLM goes on to acknowledge that "[u]nder all alternatives, effectiveness of greater sage-grouse breeding (leks), nesting, and brood-rearing habitats would continue to decline, as they have through 2006." *Id.* In fact, "it is uncertain if habitats would still provide some function to greater sage-grouse by 2023." *Id.* If the LaBarge Infill Project is approved the operators, contractors, and the BLM need to take the occupied Greater Sage-Grouse populations in the project area seriously. At minimum, strict timing stipulations need to be required which includes no winter drilling. This project, if developed under the scope and style proposed, has the potential to have detrimental impacts to the Greater Sage-Grouse nesting grounds, habitat, and mating calls. *[footnote]* (4)Citing the work of Matthew Holloran. See Pinedale Anticline DSEIS at 6-7. See also id. At 6-8 (providing citation to another study of sage grouse on the Pinedale Anticline done by R.C. Kaiser).
	Joy Bannon, Wyoming Wildlife Federation	The Greater Sage-Grouse populations need to have, at minimum, strict timing stipulations required and absolutely no winter drilling allowed.
	Joy Bannon, Wyoming Wildlife Federation	Supply a comprehensive analysis of the seasonal timing restrictions and the development plan as applied to all wildlife species.

Category	Commenter	Comment Text
Seasonal Restrictions		
	Joy Bannon, Wyoming Wildlife Federation	Conservation Alternative: Evaluate an alternative that would be considered as a conservation alternative. This would entail additional stakeholders who are from the public and who use and/or depend on the area for recreation, business, hunting, angling or ranching. This alternative should include imposing strict seasonal limitations and no winter drilling aimed at wildlife protection, reducing the number of well pads and/or wells, considering alternate well pad locations, and requiring the use of the latest technologies, such as the use of mats during well construction. Mats are also known to reduce damage of vegetation and wildlife.
	Joy Bannon, Wyoming Wildlife Federation	Incremental or Phased Development Alternative: The BLM could analyze the impacts from the proposed development of 454 well pads and 604 wells, but if the BLM decides to approve the project it should be done incrementally or in phases with small plots being worked on, completed, and reclaimed before moving to the next stage. Federal and state agencies, such as the Environmental Protection Act (EPA) and Wyoming's Department of Environmental Quality (DEQ) would assist with air quality monitoring, the Wyoming Game and Fish Department would assist with terrestrial and aquatic species impacts, and the BLM would determine the thresholds and if those are met then development would halt. For a phased development to actually benefit elk [big game] animals need to be afforded security during crucial seasons and habitats need time for successful reclamation to occur. (Alldredge, Ph.D., comments on the BLM's Fortification Creek Area Draft RMP/EA, October 2008) This alternative should also include strict seasonal limitations and no winter drilling
	Stephanie Kessler, The Wilderness Society	Regarding the proposal for year round drilling, especially as a means for limiting impacts to wildlife - we are skeptical that this is based on sound reasoning for this area. The drilling plan as described for this project is not similar to the Anticline. There is no concurrent proposal for phased, spatial and temporal development which supposedly "gets in and gets out" so as to make winter drilling a limited impact in one area, leaving other areas as refuge for the animals. BLM should reject this proposal and require strict adherence to winter stipulations for big game and other wildlife.
	Walt Gasson, Wyoming Wildlife Federation	Our wildlife and fisheries concerns are the same as noted in our 9.9.09 comments. We would, however, like to emphasize that the proposed project area is of critical importance to the Wyoming Range mule deer herd and the Piney elk herd as crucial winter range. Therefore, no winter drilling should be allowed. These ungulates will suffer population declines as we have seen in the Pinedale Anticline or could experience even more severe declines due to the cumulative impact not only from the surrounding Pinedale Anticline and Jonah fields, but also from the Cimarex plant. This is a serious matter to consider, especially when it directly violates the intent of the Pinedale Resource Management Plan (RMP) goal to "maintain or enhance aquatic and wildlife habitat" (page 2-45).
Socioeconomics		
	Cathy Purves, Trout Unlimited	The BLM must undertake socio-and economic assessments that will occur within the project community.
	Cathy Purves, Trout Unlimited	This assessment should be region wide and include those economies in outlying counties that have depended on oil and gas development in Sublette County (including Sweetwater County, Lincoln County, and others).
	Cathy Purves, Trout Unlimited	Additional oil and gas drilling and its impacts to the social, business and human community must be included that reflects the numerous challenges and changes that have occurred from both historic and ongoing development.
	Cathy Purves, Trout Unlimited	This assessment should include the impacts to landowners and agricultural businesses.
	Cathy Purves, Trout Unlimited	This assessment should include impacts to businesses that depend on the natural landscape and its wildlife and fisheries, including hunters, anglers, outfitters, guides, sporting goods stores, tourism businesses, etc.

Category	Commenter	Comment Text
Socioeconomics		
	Claire Moseley, Public Land Advocacy	While BLM typically describes the expected change in Employment from changes in drilling activity, it usually fails to mention the changes in Output or Value Added. The problem with not including all three metrics is that the changes in Output and Value Added for oil and gas are vastly different than other commodity uses. As such, it is incumbent upon BLM to address all aspects of economic activity in the project area, not just employment. In particular, the petroleum sector generally generates a tremendous amount of Value Added [1]. Part of this is the higher than average employee compensation but also the higher returns on capital. Another variable that needs to be included in the EIS analysis is Employee Compensation. BLM should be careful that the value of output is usually captured at some point by the modeling methodology. There are several ways to proceed if the BLM wants to avoid predicting prices (such as using DOE/EIA's Annual Energy Outlook and using its future price estimates), but in the end, a dollar value must be assigned to output in order to calculate the Direct Value of Output. Without it, one cannot calculate Value Added, which is needed to calculate Induced Employment and Induced Output. *[footnote]* [1]The Value of Output is the sum of the Value of Inputs (also called direct requirements) and Value Added. Value Added is the sum of employee compensation, indirect business taxes, other property income, and returns on capital. Both of these statements are identities; not equations.
	Claire Moseley, Public Land Advocacy	While BLM will likely include a limited socio-economic analysis in the EIS, we urge that a robust economic analysis be conducted. For example, economic impacts can be of three types: Direct, Indirect, and Induced. All these elements need to be addressed separately in the analysis. For example, petroleum extraction employees tend to be more productive in terms of Value of Direct Output produced per employee than other industries and likewise compensated higher than the average employee. Thus for a given change in Direct Employment, there is a relatively large increase in Induced Employment (i.e. think of it as the employment induced by the petroleum workers spending their paychecks). Since these new jobs are every bit as real as the ones created directly within the petroleum sector, they need to be included in a thorough analysis.
	Claire Moseley, Public Land Advocacy	With respect to ad valorem taxes, the EIS needs to capture to capture the impacts of tax streams. More specifically, the local government does not merely collect ad valorem taxes, it also spends those to hire teachers, build roads, and accomplish other tasks. These impacts (e.g. changes in employment in the education and construction sectors) should also be included in the analysis.
	Claire Moseley, Public Land Advocacy	Also, a detailed description of how BLM modeled the impacts should be included in the EIS so later reviewers can judge the appropriateness of modeling decisions. A reviewer should be able to reconstruct the identities in footnote 1 with the information included in the EIS.
	Cooperating Agency Meeting with Lincoln County	Want consistency and stability with development - avoid boom-bust effects.
	Cooperating Agency Meeting with Lincoln County	Concerned about the impact of the project on law enforcement, EMS first responder, hospitals given the transient workforce. • More accidents on local highways. • Only one hospital in the area (South Lincoln Medical Center, Kemmerer, Wy). • Town of LaBarge could use a clinic. • There are financial impacts to medical facilities from transient workers not paying their bills, particularly large bills. This is not unique to the project area. There is a residual debt incurred by hospitals that can get them into financial trouble that doesn't show up until a year or more after a boom cycle of a project. The counties could use the extra tax revenues when development activities are wanning, not when it is starting. • EMS and Fire also request additional equipment or funding for overtime hours. • Concern that local communities can recruit enough staff for law enforcement and emergency services to address the additional workforce in the area that comes with booms.
	Cooperating Agency Meeting with Lincoln County	Concerned about workforce shifts due to the project. When there is work in the fields, these jobs pay more that some businesses in town, so local businesses have a hard time keeping employees.
	Cooperating Agency Meeting with Lincoln County	Important to note that some financial impacts are not realized by the communities until much later. Counties need to maintain roads for active fields long after the initial influx of money is received.
	Cooperating Agency Meeting with Lincoln County	The Jonah project resulted in 3,000 people a day coming through LaBarge. This had major implications on the community for which no mitigation was provided.

Category	Commenter	Comment Text
Socioeconomics		
	Cooperating Agency Meeting with Lincoln County	Particular concern about impacts to county infrastructure and services including roads, bridges, hospitals, EMS, law enforcement and fire.
	Cooperating Agency Meeting with Lincoln County	Concerned with seasonal stipulations on drilling. This contributes to the boom/bust cycles in the local economy. Prefer that year-round drilling be allowed in order to stabilize the local economy.
	Cooperating Agency Meeting with Lincoln County	Because oil and gas wells are not major industrial facilities, these types of projects do not result in funding to local communities from Industrial Siting Act impact fees from the state. As mentioned earlier, a fund should be created upfront and run by an Overthrust Authority to mitigate for impacts to local communities.
	Cooperating Agency Meeting with Sublette County and Others	The University Of Wyoming College Of Agriculture's recent socioeconomic study concerning the social and economic impacts of ranching on local economies.
	Cooperating Agency Meeting with Towns of Big Piney and Marbleton	The local communities have been through boom and bust cycles. For example, when Exxon came in for a previous project, it was for a short timeframe because it was an intense project. The project timeline for the LaBarge Platform project appears to be more stable for local employment because it will occur over a longer period of time.
	Cooperating Agency Meeting with Towns of Big Piney and Marbleton	The project is not likely have much impact on the community because it is has been an oil and gas community for 80 years. The workforce is already in the area, so the 50+ wells per year proposed for this project will not increase the existing workforce or affect the community. The community can absorb the work and impacts.
	Cooperating Agency Meeting with Towns of Big Piney and Marbleton	Recommended that BLM put more emphasis on the human factor. "We all need to eat."
	Cooperating Agency Meeting with Towns of Big Piney and Marbleton	Asked for an assessment of the current economic conditions in the area and the town. • One person commented that the number of projected wells would not affect community, other than to put people to work. • A sizeable number of people would be employed after wells are drilled. • The local economy has gone down about 60% recently, in a steady decline since 2006, mainly because oil and gas companies cannot do what they want to do. • One person also noted that he was told by an oil and gas company representative that more than 400 people work on well completion operations, in addition to drilling and production. With the present state of the economy, this is a good incentive to allow wells to be drilled.
	David Bouquet, Exxon Mobil Production	The technical, operational and economic success of the proposed RFD is dependent on several conditions. They include year round drilling, flexibility to adapt to changing business conditions, and application of science based mitigation measures that address specific concerns that are identified at onsites.

Category	Commenter	Comment Text
Socioeconomics		
	Eric Dille, EOG Resources	BLM Must Encourage the Development of Natural Gas, a Vital Resource Natural gas production from the LBP Project Area is consistent with this nation's energy policy as articulated in the Comprehensive National Energy Strategy announced by the United States Department of Energy in April of 1998, the Energy Policy and Conservation Act, 42 U.S.C. § 6201, the National Energy Policy, Executive Order No. 13212, 66 Fed. Reg. 28357 (May 18. 2001), and the Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594. Natural gas production in the LBP Project Area increases domestic energy resources, provides an alternative to energy sources with high carbon emissions, and provides sources of revenue to stimulate the local and national economies. With continued geopolitical instability, the need for reliable, domestic sources of clean burning fuel continues to grow. Public lands managed by the BLM must be utilized for multiple uses, including energy development. As gas is produced from traditional supply sources decline, the untapped natural gas potential on BLM lands, as well as other federal lands, must take a larger role in meeting the nation's continually increasing energy needs. Furthermore, clean-burning natural gas is becoming increasingly important in efforts to reduce carbon emissions and impact to climate change. Electricity generated from natural gas results in rightly half the carbon emissions than electricity generated from coal. For this reason, increase reliance on natural gas is viewed as a means to reduce carbon emissions while maintaining energy supplies. See S. Pacala & R. Socolow, Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies, 305 Science 968, 969 (Aug. 13, 2004); Keith O. Rattie, The Role of Natural Gas in a Carbon-Constrained World, Landman, at 11 (Nov/Dec 2007). The LBP Project can and will achieve a balance between environmental protection, economic growth, and other multiple uses to help meet our nation's energy needs. Finally, natural gas production from the LBP Project will benefit the national, state, and local economies. Development of one natural gas well can yield hundreds of thousands of dollars that are paid to governments and reinvested in the local community. Production of natural gas provides revenue to county, state, and federal governments through royalties and taxes. Furthermore, development of the natural gas resource will require increased employment, and EOG will continue to make substantial economic investments in the local economies. EOG's proposal to develop 604 wells in the LBP Project Area will substantially contribute to the national, state and local economies. The LBP Project Must Analyze the Economic Impacts of the Project The LBP Project EIS must include an analysis of the economic effect of the project. This analysis should begin with a historical perspective of land use in the LBP Project Area and a discussion of how oil and gas development has facilitated economic growth since the early 20th century. This description would provide a baseline to assess current economic conditions and how future development scenarios would affect the local and regional economy. From this information, BLM can best analyze the beneficial economic impact that will result from the LBP Project. In this analysis, BLM must evaluation the beneficial impact of the revenues the federal government, State of Wyoming, and Sublette and Lincoln Counties will receive from royalties and taxes on production. Furthermore, BLM must analyze the beneficial impact to public services that depend on tax revenues generated by oil and gas operations, such as public school districts. BLM must also analyze the impact form the LBP Project on the local and regional economy from the project's demand for additional goods and services, which results in the creation of additional jobs, additional sales of materials, and increased tax revenue from sales taxes. Just as the LBP Project EIS must analyze the project's economic benefits, it must also analyze adverse economic effect of overly restrictive management alternatives. BLM must explain how overly restrictive management of the project may lead to decreased development, which negatively impacts the local and regional economy through decreased royalty revenue, decreased tax revenue and the creation of fewer jobs. Typical or average well costs should not be used as a baseline to assess the economic viability of drilling and producing a well during the 10-year project life. Use of current figures based on current operational procedures for a period of 10 years is speculative. There are many factors that affect typical well costs. Each of these factors has the ability to alter well costs to the extent that varying a single figure for any one factor would render an analysis using a static cost invalid. If estimates of future pricing are included in the EIS, sensitivity analyses should be included to demonstrate the effects of changes to the project price to drilling and production activities and to the economy of the LBP Project Area. Moreover, any such economic analysis should acknowledge that the ability to conduct economically successful operations varies among types of wells and the final evaluation of economic viability is outside the BLM's purview. The EIS should include provisions describing how the potential for lost revenues to oil and gas operators resulting from short and long-term lease access restrictions would be recovered.
	John Emmerich, Wyoming Game and Fish Department	We recommend that all temporary and permanent personnel employed by the Operators and their sub-contractors be housed in the local communities. Work force personnel should not be permitted to live or camp on the job site, or any federally managed land in close proximity. In addition, dogs and other pets should be prohibited on the job site and in vehicles traveling to and from the work place. Possession and transportation of firearms by employees should be prohibited at all times.
	Joy Bannon, Wyoming Wildlife Federation	Conduct research with Wyoming's Department of Tourism, the Wyoming Game and Fish Department, and the State of Wyoming to consider the implications for loss of that significant economy.

Category	Commenter	Comment Text
Socioeconomics		
	Joy Bannon, Wyoming Wildlife Federation	The Wyoming Wildlife Federation is a sportsmen and women organization with members who love to hunt and fish across our great state. Many of our members enjoy recreating in the project area for its big game and many streams. Wyoming has world-class wildlife and world-class mineral deposits. Our wildlife are extremely important to outdoor recreationalists and for our tourism industry. Hunting and wildlife watching are economically significant for Wyoming and the LaBarge Infill Project produces hunters from around the state and country. Hunting in this area is a fruitful business, both for the WGFD and for the surrounding communities. This business will be reduced if development is allowed because the big game populations will also be reduced.
	Joy Bannon, Wyoming Wildlife Federation	BLM needs to update its economic analysis of hunting and fishing revenue and the potential loss of this revenue in light of the known impacts that will be experienced by big game.
	Joy Bannon, Wyoming Wildlife Federation	Potential loss of this revenue affects not only the state, but each county, town and the local businesses, such as the traditional and historic Wyoming business of outfitting that depend on these industries for their source of income. For many communities, these revenues are the major source of income. In addition, the Wyoming Game and Fish Department is funded by revenues from the sale of hunting and fishing licenses and it is not difficult to imagine what would happen to local communities and the state's wildlife management agency should the loss of revenue from these hunting, fishing, and tourism activities occur. The WWF believes that the BLM must update its economic analysis of hunting and fishing revenue and the potential loss of this revenue in light of the known impacts that will be experienced by big game.
	Joy Bannon, Wyoming Wildlife Federation	Research the loss of hunting and fishing opportunities as associated with the public, businesses, outfitters, guides, wildlife watchers, and the surrounding communities.
	Joy Bannon, Wyoming Wildlife Federation	Conduct research and supply the findings of the economic cost of long-term and/or irreversible environmental changes to the area if this project is approved.
	Joy Bannon, Wyoming Wildlife Federation	Conduct a comprehensive economic and social analysis of traditional, historic users of the project area with assessments toward the impacts to their business if the project is approved.
	Joy Bannon, Wyoming Wildlife Federation	One of the fastest growing outdoor activities is wildlife watching and according to a United States Fish and Wildlife survey, 716,000 people participated in some variety of this (USFWS 2006 National Survey of Fishing, Hunting, and Wildlife Associated Recreation). The direct expenditures of wildlife watchers generated $122.6 billion in total industrial output resulting in 1,063,482 jobs and a federal tax revenue of $9.3 billion. Direct expenditures by wildlife watchers were for items such as cameras, binoculars and bird food, as well as trip-related expenses such as lodging, transportation and food. In 2006, nearly 71 million Americans (16 years of age and older) spent more than $45 billion observing, feeding, and photographing wildlife. (USFWS 2006 National Survey of Fishing, Hunting, and Wildlife Associated Recreation)
	Joy Bannon, Wyoming Wildlife Federation	Over 50 million U.S. citizens hunt and fish according to data from state game and fish agencies. In 2006, 87 million Americans enjoyed some variety of recreational outdoor activity relating to fish and wildlife. In Wyoming, during 2006 more than 320,000 people participated in fishing and hunting activities. The total of hunting and fishing recreation days in 2005 was 3,358,523. Based on the number of recreation days and average expenditure per day, hunters, anglers and trappers expended approximately $350 million in pursuit of their sport (WGFD, 2005). As mentioned above, the Wyoming Range mule deer herd winters in this project area; however, they summer and fall in the Bridger Teton National Forest of the Wyoming Range. Mule deer are a sure price when a hunter, resident and nonresident alike, is able to hunt in the Wyoming Range. Trophy size mule deer are known to inhabit here as few roads enable mule deer to grow big with little disturbance. In a typical year over 5,000 hunters pursue the deer in the Wyoming Range (WGFD, 2006; Dr. Harry Harju, 2007), and general licenses are also provided, which enable a variety of hunters to experience a fulfilling hunt. Tags will not be as plentiful for this herd if the LaBarge Infill project is allowed to be developed as the deer's survival rate during the winter will be greatly hindered.
	Kent Connelly, Coalition of Local Governments	A Monitoring Plan must be developed and provide for annual planning meetings (and more as needed) among the Operator, BLM, affected livestock grazing permittees or landowners, and the local cooperating agencies. Such meetings will address resource issues such as livestock grazing, reclamation, transportation, habitat, wildlife and the development plan for the coming year. This will allow EOG, affected interests and BLM to plan and adjust for situations where reclamation or mitigation is not working or where there are other resource conflicts.

Category	Commenter	Comment Text
Socioeconomics		
	Kent Connelly, Coalition of Local Governments	Through the CLG, the local governments coordinate their participation in federal land use plans and projects. These comments identify and evaluate the potential impacts of the proposed action and recommend appropriate mitigation measures to minimize social, economic, and resource impacts. The issues raised in these comments should also be used in designing the alternatives. The following recommendations are in addition to the Mitigation Guidelines and Operating Standards Applied to Surface Disturbing and Disruptive Activities set forth in the 2008 Pinedale Resource Management Plan and Final EIS (RMP), Appendix 3.(1) *[footnote]* (1)The proposed action must conform to the 2008 Pinedale RMP in its entirety. 43 U.S.C. § 1732(b); 43 C.F.R. § §1601.0-5(b); 1610.5-3.
	Kent Connelly, Coalition of Local Governments	The EIS must thoroughly address the direct, indirect, and cumulative impacts on livestock grazing operations affected by the proposed action. The Coalition estimates that 22 allotments and 7681 animal unit months (AUMs) are potentially affected by the proposed action. Moreover, the seasons of use coincide for the most part with the times when energy development can also occur, that is between May and November of each year. See Pinedale RMP, App. 20. Thus, there appears to be significant overlap and, thus, the potential for conflict that needs to be addressed.
	Kent Connelly, Coalition of Local Governments	Historically, there has been relatively little coordination with local governments, especially with respect to transportation impacts that occur outside of public lands. Thus, BLM decisions leave county resources stretched to provide transportation facilities, services, and to compensate for the indirect and cumulative impacts.
	Kent Connelly, Coalition of Local Governments	The EIS should identify stock driveways used to move sheep and cattle through the project area and in the vicinity of the project area. It also needs to identify other critical areas, such as sources of water, calving / lambing areas (where applicable), and existing and planned range improvement projects that may be adversely affected. These issues should be addressed in annual planning meetings between EOG and the livestock operators. EOG should designate a liaison to be responsible for communication with affected livestock operators and landowners on a regular basis.
	Kent Connelly, Coalition of Local Governments	The EIS, therefore, must include a meaningful analysis of the projected increases truck traffic and resulting impacts on public safety, air quality capacity or road maintenance. This includes identifying which roads will need to be upgraded and those that need to be constructed, including specific maintenance requirements and responsibilities.
	Kent Connelly, Coalition of Local Governments	As directed in their respective land use plans and policies, for example, the CLG member also strive to protect agricultural land uses and its ranching and farming heritage, as it is a primary foundation of the custom and culture of the affected counties. See e.g., Lincoln County Comprehensive Plan at 3-37 (2005) ("Livestock grazing, the resulting lifestyles and imprint on the landscapes of the west are some of the oldest enduring and economically important cultural and heritage resources in the west, and must be preserved and perpetuated"), 3-41 ("Forage allocated to livestock may not be reduced for allocation to other uses. Current livestock allocation will be maintained"); SWCCD Land and Resource Use Plan and Policy at 51 (2005) ("The production of livestock in Sweetwater County is necessary to the livelihood of the ranching/farming businesses and related industries and it is also vital to the well-being and continued health of natural resources on federal, state and private lands"); SCCD Public Land Use Policies at 16 (2008) ("Management of public lands must maintain and enhance agriculture to retain its contribution to the local economy, customs, cultural and heritage as well as a secure national food supply"), 17 ("The continued viability of livestock operations and the livestock industry should be supported on the federal lands within the District. . . by the proper optimization of animal unit months for Livestock").
	Kent Connelly, Coalition of Local Governments	The EIS also needs to disclose the impacts on existing roads that provide recreation and grazing permit access. A significant number of the roads provide access to grazing allotments and are necessary to maintain structures and manage livestock. Similarly, these other roads provide important recreation access almost year-round. Even if the roads also provide access for this project, they may well need to remain open to meet the access needs of other land users.
	Kent Connelly, Coalition of Local Governments	The same is true with respect to transportation and access. See e.g., SWCCD at 21 ("Public access to routes of travel is essential to the County's transportation and public access systems and to the economic, social, political well being, custom and culture of the communities and citizens of Sweetwater County"); SCCD at 35 ("Access to and across public lands is critical to the use, management, and development of those lands and adjoining state and private lands); Lincoln County at 3-26. The EIS alternatives should conform to the local land policies of the CLG cooperating agencies. 43 C.F.R. §§1610.3-1, 1610.3-2

Category	Commenter	Comment Text
Socioeconomics		
	Kent Connelly, Coalition of Local Governments	CLG is concerned about the impacts of the proposed LaBarge infill project on all roads within, and near, the project area. Increased heavy truck traffic, for example, stresses road beds, drainage, and traffic capacity on roads that may already exceed their levels of service, adds to congestion in communities and contributes to dust, haze and air pollution.
	Kent Connelly, Coalition of Local Governments	At the same time, drilling restrictions, such as caps on surface disturbance or requirements for non-traditional drilling, must meet the geological characteristics of the field and the lease terms. This is a mature field, where drilling is defined by existing units and lease terms. BLM lacks the authority to change the lease terms.
	Kent Connelly, Coalition of Local Governments	BLM must also consider the proposed action's consistency with the economic policies and programs of the CLG cooperating agencies and require appropriate mitigation and compensation for impacts to local infrastructure in reconciling socioeconomic conflicts. 43 U.S.C. §1712(c)(9).
	Kent Connelly, Coalition of Local Governments	In mitigating these significant impacts, EOG should agree to coordinate with the respective county road departments and state highway divisions regarding road capacity and traffic levels. EOG should also compensate the Counties for the increased levels of use and damage or wear and tear above normal levels. A Transportation Plan must also be developed in close coordination with the local governments to address conflicts early in the process. The Transportation Plan must be consistent with the county road systems and must provide that all transportation related decisions will be made in close consultation with affected counties, conservation districts, landowners and livestock operators. This is especially important with respect to the control of fugitive dust emissions. BLM should further provide for the option of surfacing roads that will be used for the life of the project to reduce dust and soil erosion.
	Kent Connelly, Coalition of Local Governments	There are also impacts on road systems outside of the project area that should be addressed. Specifically, much of the equipment and supplies are trucked in from Sweetwater County which puts additional pressure on existing state and county roads. The increased traffic affects residents and businesses in all three counties.
	Kent Connelly, Coalition of Local Governments	In addressing the potential social and economic effects to the local communities in the EIS, the EIS needs to discuss impacts to local infrastructure, severance taxes and federal mineral royalties. This discussion must describe the statutory allocation of these revenues in Wyoming, particularly the limited amounts that flow to city and counties, with no dedicated funds to assist the local government entities most directly impacted. This is a critical point for CLG members who will incur substantial costs from the proposed project's impacts without sharing directly in the federal royalties.
	Kent Connelly, Coalition of Local Governments	Under the Federal Land Policy and Management Act (FLPMA), BLM must analyze the proposed LaBarge project to determine if it is consistent with local land use plans, programs and policies. 43 U.S.C. §1712(c)(9). The local governments support energy development as one of the principal multiple uses on public lands and an important component of the local and regional economy. See e.g. Lincoln County Comprehensive Plan, Appendix 3 at 3-32 to 3-35 ("To support of the National Energy Policy and to reduce the nation's dependency on imported oil, all public lands must remain open to the greatest extent possible for the exploration and development of energy and energy related products. This is to be accomplished with full consideration of the impacts to other public land resources and uses."); Sweetwater County Comprehensive Plan 7.1 (Encourage and support environmentally responsible resource exploration/development within the region."); Sweetwater County Conservation District Land and Resource Use Plan and Policy at 27-31 (GOAL: Encourage suitable mineral and energy resource exploration and development in the County, while conserving rangeland, soil, and water resources.); and Sublette County Conservation District Public Land Use Policy at 6 (To support national energy needs relative to the nation's increasing dependency on foreign oil, all public lands must remain open to the greatest extent possible for the exploration and production of energy and other energy related products.)
	Nick Taylor	The environment is very important to everyone and everything around the world today. The impacts of the energy industry are minimal long term. With technology today drilling and completion of Natural Gas and oil wells, in my opinion are very low. Once location are reclaimed and replanted and the only thing there is a single wellhead, seperator, or so on, the impact is very low to the environment. Natural Gas is the future of America and is a clean fuel as compared to fuel oil. I think the demand for Natural Gas in the future and present is going to in great amounts and I am all for it. I have seen old locations form the past and when they are done, they are indetectable. Drilling brings jobs and business to small communities, permanent employees and housing and is great for the economy. As a Marbleton councilman and permanent resident, I am all for it!

Category	Commenter	Comment Text
Socioeconomics		
	Stephanie Kessler, The Wilderness Society	We are very concerned with habitat loss and fragmentation and other impacts to big game, sensitive species and of course, sage-grouse in the area. The BLM's analysis needs to take a comprehensive look at the impact of this project in combination with other major developments in the area, particularly with the nearby Cimerex proposal and also the Jonah and Anticline fields. Mule deer and elk are of particular concern. The loss of habitat across the region, and displacement are affecting not only herd size, but also age make-up of the herds. The BLM needs to conduct an analysis of how this development affects the local outfitter and tourism-based businesses that depend upon healthy and productive big-game herds, and also older-aged animals for trophy deer and elk hunts.
	Walt Gasson, Wyoming Wildlife Federation	Outdoor recreation in this area will also be degraded due to the proposed project, as 800+ wells and associated infrastructure, traffic, and surface disturbance will diminish the potential for recreation. This will reduce hunting and fishing opportunities, and outfitting success. As the recreation and tourism decline, so does the economic benefit from those activities to businesses within the surrounding area
Soils		
	Cathy Purves, Trout Unlimited	Soil surveys for this area need to be updated and completed prior to permitting. Stockpiling topsoil for 40 years or even one year is no longer considered appropriate mitigation or appropriate reclamation science. The BLM should make sure that any soil stockpiling is completed using new standards, and compliance for this should be monitored.
	Cathy Purves, Trout Unlimited	A comprehensive LaBarge Platform Reclamation Plan must be developed and supported by all cooperating agencies. Certified professionals must be used for reclamation practices.
	Kent Connelly, Coalition of Local Governments	BLM should provide for immediate soil stabilization based on onsite soil survey, weather, slope and slope aspect. Disturbed areas not needed for long-term production operations or vehicle travel should also be recontoured, protected from erosion, stabilized and revegetated with a self-sustaining, vigorous, diverse, native or otherwise approved plant community sufficient to minimize visual impacts, provide forage, stabilize soils, facilitate capture of rainfall and snow and reduce runoff, and impede the invasion of noxious weeds and ensure establishment of natural plant community.
	Kent Connelly, Coalition of Local Governments	The Reclamation Plan must be developed in close consultation and coordination with CLG members, affected livestock operators and landowners and address noxious weed control, wildlife habitat and livestock forage mitigation and site appropriate reclamation. Specifically, BLM must provide for consultation with the local conservation districts as to the approval of seed mixtures because they have jurisdiction by law, and their special expertise should be utilized at all phases of the project.
	Kent Connelly, Coalition of Local Governments	After surface disturbance, the operator would do interim reclamation, to preserve soil and reduce erosion. The interim reclamation phase would use an initial mix of native and sterile seed mixes. Native species tend to be very difficult to establish and during the several years required, noxious weeds or invasive plant species can become established. Chemical treatments will kill noxious weeds and the native plants used in reclamation. In other project areas such as Hiawatha, BLM offers the alternative of sterile nonnative seed and native seed mixes to effect initial plant growth and to stabilize the site. CLG members note that this method was used to good effect on drill sites on the Bridger-Teton National Forest.
	Kent Connelly, Coalition of Local Governments	CLG members recommend that the monitoring program adopt performance standards that focus first on vegetation, soil and water quality, rather than focusing primarily, if not exclusively, on wildlife population numbers. Development impacts are detectable earlier in vegetation and soil impacts, while wildlife numbers may take a year or more before there is a detectible change and those changes may be due to other regulatory actions, such as hunting limits. By setting the standards specific to the project soil, vegetation, and availability of water, the monitoring program will detect adverse changes more quickly and the affected entities can respond more quickly under this adaptive management model.
	Kent Connelly, Coalition of Local Governments	CLG supports an effective Reclamation Plan that is based on actual soil types, precipitation, and existing and ecologically sustainable vegetation. Reclamation in the high desert areas can be challenging and needs to be adjusted for each site. The reclamation plan needs to take into account all resource uses as well.
	Kent Connelly, Coalition of Local Governments	The EIS should also provide that if construction operations allow, EOG would use topsoil live haul, which is the direct placement of recently salvaged (not stockpiled) topsoil. Live-haul of salvaged soil eliminates the problems of maintaining soil viability while soil is stockpiled and can improve reclamation success. This avoids the problems of stockpiled soils and the related deteriorating fertility, micro-flora, and loss of seed viability.

Category	Commenter	Comment Text
Soils		
	Todd Parfitt, DEQ	The EIS needs to analyze alternatives which minimize the amount of surface disturbance and topsoil removal. Pipelines should be co-located with roads to minimize surface disturbance. Soils which remain in place, even when compacted and otherwise disturbed can often be reclaimed more quickly and successfully than soils which have been removed and replaced. Operators should install pipelines with techniques such as plowing and vegetation should be mowed rather than bladed to minimize soil disturbance.
Special Areas/ACEC		
	Cathy Purves, Trout Unlimited	Rock Creek ACEC is an existing ACEC area that is unavailable for oil and gas leasing and has been recognized by the BLM as having both relevance and importance criteria for scenic, fisheries and wildlife values. The RMP specifically states that this area will be protected to enhance wildlife habitat and ensure quality aquatic habitat for the sensitive CRCT, in addition to providing winter crucial range for elk (page 2 54). The Project map either needs to be revisited in its delineations or this portion of the ACEC needs to be withdrawn.
	Cathy Purves, Trout Unlimited	The Lake Mountain WSA may also contain portions of its eastern boundaries within the Project area.
	Cathy Purves, Trout Unlimited	According to the Pinedale RMP Map 2 33, the eastern portions of Rock Creek ACEC and Lake Mountain WSA might be included within the LaBarge Project Area. These two special areas contain important wildlife and fisheries values that were deemed worthy of special protection by BLM.
	Cathy Purves, Trout Unlimited	Portions of two Special Designation and Management Areas should be excluded from the project area as it appears they overlap into the Project area.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Had questions or comments on Rock Creek ACEC. Are there existing leases within the boundary? Some comments (from scoping?) state the companies should pull the option of sites within the ACEC from the defined project area. Note that existing leases can not be cancelled, and some locations for existing leases may not be federal lands within the ACEC boundary. Also note that the project area is mostly downstream of the ACEC drainage. If there are no existing leases within the ACEC boundary, lands within that boundary should be pulled from the potential project area.
	Kent Connelly, Coalition of Local Governments	Finally, the Operators have stated they would avoid construction in the 100-year floodplain of the Green River, unless it can be demonstrated on a case-by-case basis that there is no physically practical alternative. BLM and the Operators should clarify that tank batteries and associated production facilities will be placed outside of the floodplain, and that any well heads within floodplains will be hardened.
Surface Disturbance		
	Bruce Pendery, Wyoming Outdoor Council	Onshore Oil and Gas Order No. 1. The BLM's latest version of Onshore Oil and Gas Order No. 1 was published in the Federal Register in 2007. 72 Fed. Reg. 10,308 (March 7, 2007). Among other things, the Order requires that "[t]he operator must conduct operations to minimize adverse effects to surface and subsurface resources, prevent unnecessary surface disturbance, and conform with currently available technology and practice." Onshore Oil and Gas Order No. 1 § IV.
	Cathy Purves, Trout Unlimited	On page 3, the discussion on surface disturbance states it is expected to be at 80-acre surface density for single vertical well placement and according to the Table 1, an estimated 128 new vertical wells are planned. Additionally, shallow oil wells are being proposed at the present 10-acre vertical well placement with a consideration of 5-acre well spacing. This type of vague discussion with numbers is confusing to the reader and needs to be more thoroughly discussed in order to provide a more comprehensive and realistic view of landscape disturbance. Please provide a map that illustrates the surface density drilling placements within each Area Description (i.e., Area A map showing well placements and surface density discussion).
	Cathy Purves, Trout Unlimited	The map provided on page 2 is a poor depiction of the project area with little geographic identities, including streams and rivers, land status, towns, and current oil and gas well activities. A better set of maps would be recommended that would identify the regional geographic references and locations, including watersheds and land status. We ask that the EIS include the most current land use activities, including all oil and gas wells, streams, rivers, towns, resource management areas, etc.

Category	Commenter	Comment Text
Surface Disturbance		
	Cathy Purves, Trout Unlimited	In reviewing the project discussion on page 1, the numbers for new well pads (463) and the acreage density of well pads (1 new well pad per each 1,263 acres) do not seem to add up to the proposed 218,000 acres of total disturbance. Based on the description provided, the actual figure amounts to more than 500,000 acres of total disturbance. If this is not the case, we ask that a more thorough explanation of acreage disturbance be provided.
	Cathy Purves, Trout Unlimited	The proposed wells and well pads distribution must be identified in order for the EIS to fully account for the potential impacts to air, water, fish and wildlife. The scoping document does not address or locate any such specific development plans.
	Cathy Purves, Trout Unlimited	There is a lack of discussion on the current and old surface disturbance activity within this Project area. The BLM should incorporate the surface disturbance of old well pads that are being overhauled for additional drilling. Please address what will become of old roads and old wells that currently exist within this area.
	Cathy Purves, Trout Unlimited	The discussion of disturbance is significantly lacking in information. Area B's discussion only mentions that a typical new well pad requires an initial disturbance of 10 acres. Yet, this area is slated for up to 214 wells and covers 54,000 acres. Road access development should also be included in this analysis.
	Cathy Purves, Trout Unlimited	Please provide more details in the EIS for the discussion of size and dimensions of a drill pad and well depth (page 9). In addition, more information all around is needed for how many wells per pad are being planned for and the implications for increasing the acreage size of multiple well pads. The plan does not discuss how many existing well pads are currently in the field, what measures are being planned for that would incorporate new disturbance to old pads, their clean-up, etc.
	Claire Moseley, Public Land Advocacy	The scoping notice indicates that in addition to the 604 infill wells from 454 well pads proposed by EOG, there is the potential for 384 wells being drilled by other operators with the analysis boundary. While BLM provided specific parameters for EOG's project in the scoping notice, it has failed to provide the same level of information for the other operators' wells. For example, ExxonMobil has indicated that all but 9 of its 214 wells will be drilled from existing pads. This distinction must be carried forward into the project description because it constitutes a significant change in the cumulative effects analysis that will be performed as part of the EIS. It is also important for the public to recognize industry's commitment to reducing new surface disturbance in the project area. PLA strongly recommends that BLM include similar information from other operators in the project description to ensure that an accurate analysis is conducted.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Encourage the use of existing facilities and the development of pipelines for water transport to reduce the overall disturbance and impact of the proposed project. Also would try to centralize the project infrastructure to limit impacts. These actions could be part of mitigation.
	John Emmerich, Wyoming Game and Fish Department	All oil companies should avoid unnecessary surface disturbance and minimize impacts from well pad siting and road construction. New road construction proposals should be reviewed and approved by the BLM and proposed new roads should be sited using current GIS technology prior to agency approval. In addition, the construction of loop roads should be minimized.
	John Emmerich, Wyoming Game and Fish Department	Field Developmental Directional Drilling/Well Spacing. All standard practices applied to surface-disturbance activities should be adhered to as outlined in the PRMP. In general, the criteria identified in the PRMP governing well pads and facilities, pipelines and communication lines, air quality protection measures, and reclamation should be adhered to in their entirety.
	John Emmerich, Wyoming Game and Fish Department	Specifically, all efforts associated with the development of this oil and gas field should focus on minimizing the number of pad locations, implementing directional drilling with multiple wells from a single pad, and maintaining well pad spacing at an average of no more than three pads per section (square mile). The construction of pipelines, powerlines, and production and ancillary facilities should be closely coordinated with BLM and WGFD personnel in order to insure that all efforts are taken to avoid impacts to crucial wildlife habitats.
	Kent Connelly, Coalition of Local Governments	Because the Operators propose to drill up to 463 new well pads, the EIS must fully address the impacts of new well pad construction and demonstrate that it conforms to the 2008 Pinedale RMP.

Category	Commenter	Comment Text
Surface Disturbance		
	Kent Connelly, Coalition of Local Governments	In many instances, BLM requires project proponents to bury pipelines on the theory that it reduces visual impacts. However, it is the CLG's experience that buried pipelines have their own, often greater, impacts due to the surface disturbance, and the visual impacts that persist for decades. Pipelines are a notorious source of noxious and invasive weed infestations. Thus, if technically feasible, the proponent should be required to construct the pipeline above ground or if small enough, to rip the pipeline in, to reduce surface disturbance and the related adverse impacts.
	Kent Connelly, Coalition of Local Governments	Because EOG proposes to drill 96 percent of the wells vertically and 54 percent of horizontally on new pads, the EIS must fully address the impacts of new well pad construction and demonstrate that it conforms to the 2008 Pinedale RMP. This means that BLM must require that disturbance of vegetation is kept to a minimum by using previously disturbed areas and existing easements as well as limiting the size of equipment/materials storage yards and staging areas. Pinedale RMP at App. A3-4. CLG supports limiting the number of vertical wells in order to decrease the number of new well pads, while preserving production. Such a limitation would reduce surface disturbance for the entire project by minimizing pad construction, pipeline construction, and transportation needs.
	Todd Parfitt, DEQ	The EIS needs to analyze alternatives which minimize the amount of surface disturbance and topsoil removal. Pipelines should be co-located with roads to minimize surface disturbance. Soils which remain in place, even when compacted and otherwise disturbed can often be reclaimed more quickly and successfully than soils which have been removed and replaced. Operators should install pipelines with techniques such as plowing and vegetation should be mowed rather than bladed to minimize soil disturbance.
Threatened & Endangered Species		
	Cathy Purves, Trout Unlimited	Surveys for special status species will be conducted on federal lands prior to any approval of project development or any project activity approval, as described in the Final RMP ROD (Section 2.3.16, pages 2-45 through 2-54). Project pre-construction activities must include the submission by operators of baseline vegetation and habitat condition inventories of the area, aquatic and water quality samples of the area (particularly since this area has been an active drilling site since the 1920's), and an air quality monitoring plan as defined by BLM and DEQ. The results of these inventories must be submitted to the BLM in order to assist the operators in their construction plans and development activities.
	Cathy Purves, Trout Unlimited	There is no mention of the Conservation Agreement for Colorado River cutthroat trout (CRCT Conservation Team. 2006. Conservation agreement for Colorado River cutthroat trout (*Oncorhynchus clarkii pleuriticus*) in the States of Colorado, Utah, and Wyoming.) The Wyoming BLM is a signatory to this Agreement and conservation measures for this sensitive species are required to be included in the EIS. This will be particularly important due to the numerous streams and tributaries within the Project Area that support Colorado River cutthroat trout (CRCT) including conservation populations and pure populations of this species.
	Cathy Purves, Trout Unlimited	The area within the LaBarge Platform project location contains important waters for the sensitive Colorado River cutthroat trout (CRCT). Less than 7% of this species habitat remains in the Upper Green River basin (which extends south to the UT CO border) (WGFD, 2009; TU, 2009). Within those streams in the project area, LaBarge Creek, South Piney Creek, Middle Piney Creek, Fish Creek, and the Green River contain these highly sensitive trout.
	Cathy Purves, Trout Unlimited	Most of the water bodies within this project area have important conservation populations of CRCT; indeed, some have genetically pure populations which are quite important in light of the fact that CRCT have been eliminated from 90% of its historic range (Evaluation Report; WGFD). The potential for contamination of the streams and rivers that contain CRCT in these areas remain high should energy development be allowed. Benzene contamination in oil and gas industrial water wells have been identified in 88 of 230 wells in the Pinedale Anticline area (EPA 2008) and despite testing, the source of contamination is still unknown (BLM 2008). TU supports the minimum buffer or setback to all riparian and stream areas of 500 feet. We feel that an increase to 1300 feet would be significantly more protective in specific case by case areas that have brood potential. By offering protection measures on these important fisheries habitat areas and working toward developing more intensive management action plans for areas that are being developed, it is possible to maintain available quality habitat within the Pinedale BLM region.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	For fisheries, 500 foot buffer for riparian & perennial streams is good; the buffer for 100-year floodplains is also good. The project will need something to control the potential for instream river migrations in order to avoid instream channel effects to native cutthroat trout during spawning and incubation times.

Category	Commenter	Comment Text
Threatened & Endangered Species		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Species that will need to be discussed in the EIS include northern leopard frogs [potential for listing] as well as other amphibians and lizards. There are Boreal toad breeding sites and Colorado River Cutthroat trout in the project area. These species will need protection for existing habitat, as well as potential improvements associated with the project. It could be good to address the potential for habitat improvements in the EIS as part of the project. Note that in increase in the number of roads could increase the impacts to amphibians. There are no known sensitive reptiles in the project area.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Need to improve passage for Cutthroat trout and native non-game fish if new culverts are put in. Older culverts need improvements.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Will Lynx be talked about in this document?
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There may be Spadefoot toad in the project area, although existence is not confirmed. There is a report currently being finalized from a 2-year contract for surveys in the summer of 2009. The survey was in the Bear River drainage and includes some locations within the project area.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The anticipated sage grouse decision is not anticipated until March 8.
	John Emmerich, Wyoming Game and Fish Department	This project is located within Colorado River cutthroat trout core conservation watersheds and habitats within the drainages have been identified as crucial habitat and should be given high priority and protection in developing this project. Activities within these watersheds should provide adequate habitat protection for the long term sustainability of native sport fish and native nongame aquatic species. It is pertinent that this project meets the direction or intent covered by the Conservation Agreement and Conservation Strategy which was signed by several agencies including the Bureau of Land Management. In order for the Bureau of Land Management to meet the conservation agreement and strategy, habitat must be managed and maintained to achieve the following: • Secure and protect habitats for all conservation populations covered within the agreement and strategy by preventing habitat degradation and fish mortality; • Enhance or restore habitat used by conservation populations to near optimal conditions by implementing actions to enhance habitats and to curtail undesirable impacts from ongoing land practices; • Consider cutthroat trout as a high priority during all land use planning; Provide spawning, rearing and adult habitats that meet "desired condition"; • Provide long term sustainability of Colorado River cutthroat trout. This proposed activity is located within the lower portions of Spring, Trail Ridge, North Beaver, South Beaver, Pine Grove and LaBarge Creek all which do support populations of Colorado River cutthroat trout.
	John Emmerich, Wyoming Game and Fish Department	Impacts to habitat and population for BLM sensitive species within the project area. Those species include Colorado River cutthroat trout, northern leopard frog, and boreal toads.

Category	Commenter	Comment Text
Threatened & Endangered Species		
	John Emmerich, Wyoming Game and Fish Department	The potential impacts of open roads and Canada lynx were identified as a significant issue in the development of the lynx conservation strategy. Lynx were considered relatively common in the northeast section of the Wyoming Range in the early 1970s (Squires et al. 2003). The only recent records for reproductive lynx in Wyoming outside of Yellowstone National Park have been in the Beaver Creek drainage (Squires et al. 2003; LCAS, p13, 44). The two breeding adults radio-collared by WGFD and tracked for a number of years both eventually died of starvation in late winter, indicating that winter foraging is likely a limiting factor (Squires et al. 2003, WGFD records). One of these mortalities occurred immediately south of the LaBarge Infill project area in Fontenelle Creek. Surveys in 2000 and 2001 indicated that 3-5 lynx currently occupied the range (Squires et. al. 2003). The Wyoming Range and its tributaries may be the most important recovery area for this species in the future, provided that adequate habitat can be maintained, especially winter foraging habitat. A cautious approach would seem to be called for in road creation and improvement and removal of timber for pad sites that may currently provide high quality lynx foraging and denning habitat in the extreme western portion of the LaBarge Infill project area. Small isolated populations are vulnerable to demographic, genetic, and environmental stochastic processes and minor impacts could potentially eliminate lynx in the Wyoming Range (Squires et. al. 2001). The Lynx Conservation Strategy (LCS) has identified that development of oil and gas leases can impact lynx habitat with the greatest impact likely from the development of road access to facilitate exploration and development. Increased access for competing predators can result in increased competition for prey. Any decreases in prey resulting from oil and gas development may be critical for the remnant lynx population remaining in northwestern Wyoming that likely travels through the Wyoming Range and habitat to the north. Direct mortality from traffic and illegal shooting could also result from increased road access.
	John Emmerich, Wyoming Game and Fish Department	Wolverines are known to occur west of the project area in the Wyoming Range. Wolverines have recently been observed north, west, and southwest of the project area.
	John Emmerich, Wyoming Game and Fish Department	Impacts to habitat and population for BLM sensitive species within the project area. Those species include Colorado River cutthroat trout, northern leopard frog, and boreal toads.
	John Emmerich, Wyoming Game and Fish Department	In 2009, a grizzly bear was documented in the Middle Piney Creek watershed, west of the project area. Consequently, we recommend grizzly bears be considered in any assessments of Threatened and Endangered (T &E) Species.
	John Emmerich, Wyoming Game and Fish Department	We recommend that the EIS identify wildlife habitat parameters within the treatment area, and develop measures to maintain, and where possible, enhance habitat for sensitive and nongame wildlife species of concern.
	John Emmerich, Wyoming Game and Fish Department	Cumulative effects on nongame native species and T&E species should incorporate analysis of impacts from other proposed and ongoing projects in the immediate and adjacent areas in the Wyoming Range including other oil and gas leases, timber harvesting (past and proposed), livestock grazing, road building, and recreation use. Given the large number of historic, current and proposed projects in adjacent habitat, and the quality of habitat in the LaBarge Infill project area, a conservative approach is recommended in developing additional oil and gas resources.
	John Emmerich, Wyoming Game and Fish Department	Project proponents should comply with Federal wildlife laws and regulations to eliminate/minimize potential impacts to endangered, threatened, proposed, or protected species, and their habitat (i.e. Migratory Bird Treaty Act, Golden Eagle/Bald Eagle Act) determined to be present through on site.
	John Emmerich, Wyoming Game and Fish Department	Nongame native species of special (NSS) concern, as described in WGFD's State Wildlife Action Plan (SWAP), that occur or likely occur in the project and surrounding area include: NSS 1: Canada lynx NSS2: long-eared myotis, long-legged myotis, Townsend's big-eared bat, Greater Sage Grouse, Trumpeter Swan NSS3: water vole, wolverine, big-brown bat, northern flying squirrel, silver-haired bat, water shrew, greater sandhill crane, peregrine falcon, willow flycatcher Sensitive or MIS species: northern goshawk, flammulated owl, boreal owl.
	John Emmerich, Wyoming Game and Fish Department	Radio-telemetry data collected over the past decade has indicated that Canada lynx may be present in the extreme western portion of the project area, and use the forested stands for movement corridors, foraging, and resting sites.
Travel Management		
	Cathy Purves, Trout Unlimited	The use of pipelines to transport produced and waste water should be implemented rather than the use of trucking. This will reduce soil erosion, sedimentation, roads, air pollution, and wildlife and livestock encounters with trucks.

Category	Commenter	Comment Text
Travel Management		
	Cathy Purves, Trout Unlimited	Little attention has been given in this Project Description plan on the need to reduce truck trips in an effort to reduce dust and air pollution. A defined Transportation Plan that minimizes truck traffic should be required. BLM should require the operators to develop a Transportation Plan that minimizes truck traffic and the building of new roads. While the proposal calls for a little more than 52 miles of new roads, it does not provide reference to the current number of roads and their expected improvement activities in acreage disturbance. Since heavy equipment trucks that are used in the oil and gas industry use diesel fuel and contribute to significant emission and air pollution, in addition to causing dust pollution and wildlife mortalities, a more detailed Transportation Plan should be forthcoming in the EIS.
	Cathy Purves, Trout Unlimited	EOG mentions that studies conducted by BP in 2007 indicate that well site visits may be reduced by as much as 50% after the installation of telemetry. Telemetry is being used now on most sites and this should be updated. In addition, with the operator using this as a reference for reducing truck traffic, the question arises as to whether this information was taken into account when estimating the truck traffic for this project proposal.
	Cathy Purves, Trout Unlimited	With the new EPA air emission standards reduction and the likely potential for Sublette County to be classified in a nonattainment category, the operators must provide a more substantive Transportation Plan that reduces truck traffic by implementing a liquids gathering system (LGS) for all produced waters and waste. This was successfully completed in the Pinedale Anticline by operators as described in a report prepared by Shell, Inc. and submitted to the BLM in February 2010 (*"Deferral of Liquids Gathering System for DA-5"*, February 9, 2010 letter to Brian Davis, Acting Pinedale BLM Field Manager). An estimated 200,000 miles per year of truck traffic (resulting in 200 millions of miles saved post 2008) was reduced due to the implementation of an LGS.
	Cooperating Agency Meeting with Lincoln County	Would like to see a comprehensive road plan, pre-road planning.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The advantage of a liquid gathering system would be to reduce truck traffic. Over time the benefits in constructing a pipeline and having it available is also economic.
	Dustin Child	A road management programs should be developed with speed limits.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	I am concerned about the increased traffic on the Calpet and Dry Piney rods. Many individuals think that fencing these roads would be the solution. All this would do, would create bottle necks and traps for the livestock and wildlife. It would also fence out availably of water in these pastures. Perhaps all we would have to do is the oil company's stress to the e subcontractors to slow down and be more responsible.
	Jack & Lynda Sims, Jack C & Lynda Sims Recovable Trust	A plan where roads would be minimized as much as possible.
	John Emmerich, Wyoming Game and Fish Department	Winter road maintenance must include blading turnouts on both uphill and downhill sides of the road at one-half to one-mile intervals and at known game crossings to allow wildlife escape routes.
	John Emmerich, Wyoming Game and Fish Department	Potential impacts to amphibians species will vary based upon location and species present. Impacts that could potentially occur include: 1) mortality associated with infrastructure development; 2) disturbance due to noise; and 3) collision and mortality due to vehicles.
	John Emmerich, Wyoming Game and Fish Department	Restrict motorized access to established roads.
	John Emmerich, Wyoming Game and Fish Department	Off-road travel shall be avoided to prevent habitat damage.
	John Emmerich, Wyoming Game and Fish Department	Potential impacts to reptile species will vary based upon location and species present. Impacts that could potentially occur would include: 1) mortality associated with infrastructure development; 2) direct mortality from workers (e.g., deliberate killing of snakes); and 3) collision and mortality due to vehicles.

Category	Commenter	Comment Text
Travel Management		
	John Emmerich, Wyoming Game and Fish Department	Roads should be constructed in accordance with standards described in the PRMP. A transportation plan should be developed by all operators (eg., EOG, ExxonMobil, Chevron, Wexpro/Questar) of the infill. A transportation plan should be a required and presented in the EIS. This transportation plan should be reviewed by the BLM and WGFD to ensure compliance with existing BLM road construction guidelines. In addition, an agency review of a transportation plan will allow a thorough evaluation of new road construction and elimination of redundant roads.
	John Emmerich, Wyoming Game and Fish Department	Prohibit shift changes and minimize vehicle travel between dawn (6-8 a.m.) and dusk (4-6 p.m.) to prevent harassment and collisions with wintering wildlife.
	John Emmerich, Wyoming Game and Fish Department	We recommend that all decisions related to the layout and design of the road system associated with this proposed gas development be coordinated among BLM and WGFD personnel. Issuance of rights-of-way permits and other legally binding authorizations from the BLM to construct access roads should only be approved with the stipulation that these roads be designed to avoid crucial habitats and result in minimal disturbance to wildlife and big game that currently use the proposed project area. The PRMP provides specific guidance with reference to transportation plans, timing of new road construction, road design, and reclamation standards.
	John Emmerich, Wyoming Game and Fish Department	We recommend that seasonal restrictions and reclamation on certain road systems within the infill project area be included to reduce wildlife impacts. Human use restrictions governing surface disturbance activities apply for elk calving areas (May I-June 30). We recommend that all motorized activities associated with a winter travel plan be prohibited in areas designated as elk parturition areas during the time frames outlined in this document.
	John Emmerich, Wyoming Game and Fish Department	Recommend bussing of work crews during shift changes to reduce vehicle disturbance to wildlife.
	John Emmerich, Wyoming Game and Fish Department	New road construction should be kept to a minimum within the project area, and adhere to guidelines developed specifically for this infill project and BLM land use planning documents. Motorized access to all proposed well pads should occur via existing roads if possible. For the development of this infill project an average open road density standard of 0.25 miles per square mile or equivalent road with I-year to 5-year variations of 0 to 0.5 miles of road per square mile.
	John Emmerich, Wyoming Game and Fish Department	Operators should submit a Transportation Plan to the BLM concurrent with EIS development to more clearly identify measures that it will take during construction operations.
	John Emmerich, Wyoming Game and Fish Department	All fluids generated during drilling and production activities should be transported away from the site via pipelines. Fluid transportation via pipelines will reduce the volume of truck traffic in crucial wildlife habitats during the winter and spring periods. Consequently, a reduction in haul truck traffic will result in fewer wildlife/vehicle collisions within the Platform Infill Project Area.
	John Emmerich, Wyoming Game and Fish Department	Restrict snow plowing operations where possible.
	John Emmerich, Wyoming Game and Fish Department	Limit routine visits to well sites on crucial winter range to times when big game are typically bedded (i.e., mid-day), to reduce disturbance and stress on wildlife. Use of remote sensing technology is encouraged to reduce daily/weekly truck trips.
	Joy Bannon, Wyoming Wildlife Federation	A travel management plan is needed to limit the number of new roads built and to close and reclaim unnecessary roads already partially or fully established.
	Kent Connelly, Coalition of Local Governments	The EIS, therefore, must include a meaningful analysis of the projected increases truck traffic and resulting impacts on public safety, air quality capacity or road maintenance. This includes identifying which roads will need to be upgraded and those that need to be constructed, including specific maintenance requirements and responsibilities.
	Kent Connelly, Coalition of Local Governments	The same is true with respect to transportation and access. See e.g., SWCCD at 21 ("Public access to routes of travel is essential to the County's transportation and public access systems and to the economic, social, political well being, custom and culture of the communities and citizens of Sweetwater County"); SCCD at 35 ("Access to and across public lands is critical to the use, management, and development of those lands and adjoining state and private lands); Lincoln County at 3-26. The EIS alternatives should conform to the local land policies of the CLG cooperating agencies. 43 C.F.R. §§1610.3-1, 1610.3-2

Category	Commenter	Comment Text
Travel Management		
	Kent Connelly, Coalition of Local Governments	CLG is concerned about the impacts of the proposed LaBarge infill project on all roads within, and near, the project area. Increased heavy truck traffic, for example, stresses road beds, drainage, and traffic capacity on roads that may already exceed their levels of service, adds to congestion in communities and contributes to dust, haze and air pollution.
	Kent Connelly, Coalition of Local Governments	There are also impacts on road systems outside of the project area that should be addressed. Specifically, much of the equipment and supplies are trucked in from Sweetwater County which puts additional pressure on existing state and county roads. The increased traffic affects residents and businesses in all three counties.
	Kent Connelly, Coalition of Local Governments	The transportation of produced water both inside and outside the field must be fully analyzed. This activity can also have major impacts on state county and project roads. All possible disposal locations and transportations method should be analyzed including piping and infield disposal.
	Kent Connelly, Coalition of Local Governments	Historically, there has been relatively little coordination with local governments, especially with respect to transportation impacts that occur outside of public lands. Thus, BLM decisions leave county resources stretched to provide transportation facilities, services, and to compensate for the indirect and cumulative impacts.
	Kent Connelly, Coalition of Local Governments	In mitigating these significant impacts, EOG should agree to coordinate with the respective county road departments and state highway divisions regarding road capacity and traffic levels. EOG should also compensate the Counties for the increased levels of use and damage or wear and tear above normal levels. A Transportation Plan must also be developed in close coordination with the local governments to address conflicts early in the process. The Transportation Plan must be consistent with the county road systems and must provide that all transportation related decisions will be made in close consultation with affected counties, conservation districts, landowners and livestock operators. This is especially important with respect to the control of fugitive dust emissions. BLM should further provide for the option of surfacing roads that will be used for the life of the project to reduce dust and soil erosion.
	Kent Connelly, Coalition of Local Governments	Project roads should be designed to meet required standards for safety and construction, to minimize impacts on soils and vegetation, and to allow for effective reclamation for those project roads that do not serve other purposes.
	Kent Connelly, Coalition of Local Governments	The EIS also needs to disclose the impacts on existing roads that provide recreation and grazing permit access. A significant number of the roads provide access to grazing allotments and are necessary to maintain structures and manage livestock. Similarly, these other roads provide important recreation access almost year-round. Even if the roads also provide access for this project, they may well need to remain open to meet the access needs of other land users.
	Kent Connelly, Coalition of Local Governments	The EIS should identify stock driveways used to move sheep and cattle through the project area and in the vicinity of the project area. It also needs to identify other critical areas, such as sources of water, calving / lambing areas (where applicable), and existing and planned range improvement projects that may be adversely affected. These issues should be addressed in annual planning meetings between EOG and the livestock operators. EOG should designate a liaison to be responsible for communication with affected livestock operators and landowners on a regular basis.
	Kent Connelly, Coalition of Local Governments	EOG should also agree to place livestock crossing signs in the project area where appropriate and should agree to coordinate truck traffic with affected grazing permittees and landowners to reduce livestock collisions. EOG should compensate operators for livestock fatalities at replacement cost, as opposed to market cost. EOG personnel should also agree to reduce speeds to a level appropriate for travel within grazing allotments and to respect the times when livestock must be moved.
	Stephanie Kessler, The Wilderness Society	Regarding habitat fragmentation, this area is already extremely "hammered" by roads and well pads. We wish to enter into the record for your information the attached report called Fragmenting our Lands: the Ecological Footprint of Oil and Gas Development. (Can be found at http://wilderness.org/files/fragmenting-our-lands.pdf). Although somewhat dated, this report conducted by TWS scientists is a spatial analysis of the oil and gas development footprint in the BigPiney LaBarge field. It found that there currently exists 8.43 miles of roads and pipelines per square mile of the field. This is in addition to the acreage impacted from well pads and facilities. BLM must analyze for the addition of impacts not just from new well pads, but also from the associated infrastructure such as roads and pipelines and human traffic and movement associated with these additions.

Category	Commenter	Comment Text
Vegetation/Botany		
	Cathy Purves, Trout Unlimited	The LaBarge Platform Project Reclamation Strategy is still missing, as it was missing in the 2008 Project Description. Reclamation planning for habitat loss and disturbance is more than an important step in the oil and gas drilling program. It becomes extremely relevant when more and more habitat is scrapped away for well pads and roads, particularly in critical wildlife areas, and the reclamation revegetation efforts and reestablishment cannot keep up with the amount of lost vegetative cover. This is high desert country with little precipitation and regrowth takes many years for an area to return to productive function. It is not acceptable that this Project proposal is still without a Reclamation Plan. A Reclamation Plan is key to well permitting, mitigation efforts and plans, and species stability. Operators should be aggressive about developing a reclamation plan that, if implemented correctly, allows them the flexibility of development.
	Cathy Purves, Trout Unlimited	Please include a more detailed discussion of the plant mixtures, including shrubs, the operators plan on incorporating into their Reclamation Plan.
	Cathy Purves, Trout Unlimited	Surveys for special status species will be conducted on federal lands prior to any approval of project development or any project activity approval, as described in the Final RMP ROD (Section 2.3.16, pages 2-45 through 2-54). Project pre-construction activities must include the submission by operators of baseline vegetation and habitat condition inventories of the area, aquatic and water quality samples of the area (particularly since this area has been an active drilling site since the 1920's), and an air quality monitoring plan as defined by BLM and DEQ. The results of these inventories must be submitted to the BLM in order to assist the operators in their construction plans and development activities.
	Cooperating Agency Meeting with Lincoln County	There is information about weed infestations from the county.
	Cooperating Agency Meeting with Lincoln County	Concerned about invasive weeds, in particular halogeton because it is poisonous to livestock. When well pads are not reclaimed appropriately and weeds not controlled, weed species invade along roadways in the county.
	Cooperating Agency Meeting with Sublette County and Others	The baseline data to assess condition. The monitoring program should be based on good data. BLM explained that the soils data was available for the area, that there was Game and Fish research done recently in the area on vegetation (mainly habitat), and that there were plans to compile BLM and G&F data.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Need to consider invasive species in the EIS, and include discussions of whirling disease, water transport between channels, and noxious weeds.
	Erik Molvar, Biodiversity Conservation Alliance	The project area should be surveyed for rare plants (BLM Sensitive, or labeled G1, G2, G3, S1, or S2 by NatureServe or the Wyoming Natural Diversity database). Mitigation measures should be put into place to prevent surface disturbance from destroying or reducing rare plant occurrences, or promoting an increase in dust pollution that would have an adverse effect on plants occurring directly adjacent to roads or wellpads.
	Jill Miller, Wyoming Game and Fish Department	Third, the cattle grazing management in N LaBarge specifically is critical to the condition of the wildlife habitat on these winter ranges. I have been working with Amber Robbins on the permit renewal process that will be part of the N LaBarge Landscape Plan. Part of that process will include gathering data that WGFD has on many treatments that have been completed in this area. There are several control and treatment monitoring sites that have trend data over many years. Many of these treatments were part of a mitigation package from the last big round of development. I believe these data sets will be able to provide good info for potential mitigation projects developed in this cycle.
	Jill Miller, Wyoming Game and Fish Department	Second, I have some winter range shrub data sets in the Calpet area on Mountain Mahogany stands. These stands are critical to our deer herds on winter range. They make up a very small amount of acres on the landscape, but serve a critical role in the survival of deer throughout the winter. This community type should be give special management consideration in this process and the 13 year old data set I have may be able to assist with this.
	Jill Miller, Wyoming Game and Fish Department	Please see the attachment for the map of the mule deer areas completed. The boundary was specifically drawn with the EOG planning area in mind (especially east of the Green River). Rusty Kaiser has been our primary BLM contact on these projects.

Category	Commenter	Comment Text
Vegetation/Botany		
	Jill Miller, Wyoming Game and Fish Department	First, we will have two reports in this winter that should be able to provide significant incite on the current vegetation conditions. The Moose and Mule Deer Habitat Assessments were two projects that WGFD contracted the Teton Science School to complete in 2009. The reports will include vegetation transects in representative communities, many photo points, many management suggestions, and an extensive GIS geodatabase to go with the written report. The reason for doing these projects was specifically to generate projects (from shrub treatments, cattle grazing management, travel management, conservation easements, weed control, and well beyond.) The field crews were specifically instructed to keep mitigation ideas in mind when going through the area. I believe the report and data should provide a good set of info for this planning document.
	Jill Miller, Wyoming Game and Fish Department	Lastly, I don't want to overstep my role, but I want to indicate that from a wildlife habitat perspective, improving currently "reclaimed" areas in the LaBarge, Calpet and Deer Hills areas is paramount if more land is going to be disturbed. In it's current condition, many old pads, pipelines and roadways are only growing rabbitbrush and weed species. Recovery of these pieces of land needs to happen if the footprint of disturbance is going to be increased again. Also, improving travel plans to eliminate many two-tracks and reclaim them with native shrub communities is important.
	John Emmerich, Wyoming Game and Fish Department	We recommend that preventive measures to control the establishment and spread of noxious plants be considered. We believe this could be a significant issue with the recent increase in cheatgrass throughout the area.
	Kent Connelly, Coalition of Local Governments	BLM should provide for immediate soil stabilization based on onsite soil survey, weather, slope and slope aspect. Disturbed areas not needed for long-term production operations or vehicle travel should also be recontoured, protected from erosion, stabilized and revegetated with a self-sustaining, vigorous, diverse, native or otherwise approved plant community sufficient to minimize visual impacts, provide forage, stabilize soils, facilitate capture of rainfall and snow and reduce runoff, and impede the invasion of noxious weeds and ensure establishment of natural plant community.
	Kent Connelly, Coalition of Local Governments	CLG members recommend that the monitoring program adopt performance standards that focus first on vegetation, soil and water quality, rather than focusing primarily, if not exclusively, on wildlife population numbers. Development impacts are detectable earlier in vegetation and soil impacts, while wildlife numbers may take a year or more before there is a detectible change and those changes may be due to other regulatory actions, such as hunting limits. By setting the standards specific to the project soil, vegetation, and availability of water, the monitoring program will detect adverse changes more quickly and the affected entities can respond more quickly under this adaptive management model.
	Kent Connelly, Coalition of Local Governments	After surface disturbance, the operator would do interim reclamation, to preserve soil and reduce erosion. The interim reclamation phase would use an initial mix of native and sterile seed mixes. Native species tend to be very difficult to establish and during the several years required, noxious weeds or invasive plant species can become established. Chemical treatments will kill noxious weeds and the native plants used in reclamation. In other project areas such as Hiawatha, BLM offers the alternative of sterile nonnative seed and native seed mixes to effect initial plant growth and to stabilize the site. CLG members note that this method was used to good effect on drill sites on the Bridger-Teton National Forest.
	Kent Connelly, Coalition of Local Governments	CLG recommends the adoption of a project specific noxious weed rehabilitation and control program. BLM must aggressively control noxious and invasive weeds with an emphasis on halogeton control. The Reclamation Plan must emphasize that control of halogeton is critical because of its toxicity to sheep and other livestock and when not controlled it becomes the dominant plant species on disturbed areas and has greatly reduced forage available for livestock and wildlife. It is a primary concern when addressing impacts to sage-grouse.
	Kent Connelly, Coalition of Local Governments	The Reclamation Plan must be developed in close consultation and coordination with CLG members, affected livestock operators and landowners and address noxious weed control, wildlife habitat and livestock forage mitigation and site appropriate reclamation. Specifically, BLM must provide for consultation with the local conservation districts as to the approval of seed mixtures because they have jurisdiction by law, and their special expertise should be utilized at all phases of the project.
	Todd Parfitt, DEQ	Because of the dry climate, short growing season and poorly developed soils, reclamation in southern Wyoming is often difficult, expensive and time consuming; therefore, there will likely be several years before sufficient vegetation is established to buffer overland flows and erosion potential from the disturbed areas. The reclamation¨ plan must comply with the Wyoming Reclamation Policy and should be clearly described in the EIS, including measures to monitor success and revegetate where needed.

Category	Commenter	Comment Text
Visual/Scenic Resources		
	Lee Kreutzer, National Park Service	The proposal appears to have some potential to affect the Lander Cutoff of the California National Historic Trail. We ask that BLM identify potential effects to that and any other national historic trail in or near the project area and evaluate both direct and indirect impacts to the trail and its setting. It is always helpful for compliance documentation to include maps showing the location of the NHTs and related resources relative to project components such as wells and pipelines, and it is further useful to include visual analyses showing how structures would appear when viewed from critical points along the trail. Directional drilling for pipelines beneath intact trail segments is desirable whenever feasible.
Water Resources		
	Bruce Barrett, Bureau of Reclamation	Reclamation owns 58.87 acres of withdrawn lands within the LaBarge Platform Exploration and Development Project area. Reclamation Directives and Standards specify that no wells be drilled within 660 feet of a river, channel, permanent stream, tributary, or marsh site.
	Cathy Purves, Trout Unlimited	Should these two areas be outside of the Project boundaries, TU would like to see additional impact analysis conducted that includes cumulative effects likely to occur from such close development access. Migration routes for big game and water issues remain of high concern.
	Cathy Purves, Trout Unlimited	Water monitoring and sampling must be conducted based on the upstream oil and gas and carbon sequestration projects that are occurring west of the LaBarge Project area.
	Cathy Purves, Trout Unlimited	Please provide the supportive data in the EIS that shows how much water is produced in the Project Area from gas wells.
	Cathy Purves, Trout Unlimited	Produced water impacts should also be included in the EIS analysis, including production, storage, requirements, technical challenges, and treatments.
	Cathy Purves, Trout Unlimited	EOG provided a Stormwater Pollution Plan but it needs to be updated. It also appears to be very specific to one well site in particular and should be addressing the entire project area.
	Cathy Purves, Trout Unlimited	The BLM has a Regional Framework for Water Resources Monitoring Related to Energy Exploration and Development (Regional Framework; USGS 2007). As conditions for permitting this proposal and as guided by the ROD of the Pinedale Resource Management Plan ((November 2008), TU strongly feels that this project should not be permitted until all compliance with the Regional Framework and the RMP have been met.
	Cathy Purves, Trout Unlimited	We recognize that most of the streams in this project area are located on private lands. We feel that private lands provide significant fisheries and wildlife habitat and should be equally protected from BLM actions in permitting oil and gas projects. All these streams flow into the Green River. They provide a source for agricultural operations and recreational opportunities. Discussion of how the BLM intends to protect these waters from contamination and harm must be included in the DEIS.
	Cathy Purves, Trout Unlimited	Groundwater and surface water analysis must be completed within the project area prior to permitting this project.
	Cathy Purves, Trout Unlimited	Please update the water usage summary to reflect all four operators' potential use. The same data that was used in EOG's 2008 proposal is being used in this 2009 proposal. This includes the amount of water used per well which could be significant since the plan calls for nearly 1000 wells to be drilled. An updated and more defined summary and table should be provided that identifies the amount of water usage per well per location. Also include the figures that would define how many more fracture stimulations are typically required in the larger horizontal wells since there are a significant number of these wells being proposed. Table 4 on page 13 appears to be missing a column for the estimated water use for the Baxter formation wells. The table also differs from the 2008 version in that while there are less wells being planned for the 2009 Project Description, there is an increase in acre feet from the 2008 estimate. Please address this and provide adequate discussion on the details of water usage and treatment.

Category	Commenter	Comment Text
Water Resources		
	Cathy Purves, Trout Unlimited	A more up-to-date discussion on hydraulic fracturing and the use of chemicals for fracking needs to be included in the EIS. On page 10, a cursory review of dated information implies there is no harm. This section requires the addition of new information, the implementation of treating fracking waters, and a clarification in the 3rd paragraph which states that no hazardous substances would be placed in the reserve pits. Reserve pits contain used drilling fluids, cuttings, and produced water containing the chemicals used in fracking. Such mixtures are identified on page 9 as well. This same correction and discussion needs to occur on page 11.
	Cathy Purves, Trout Unlimited	All four objectives identified in the Pinedale RMP (Watershed and Water Quality Management, p. 2 41) must be included in any analysis for this project and be part of any of the alternatives discussed.
	Cathy Purves, Trout Unlimited	Please include detailed discussion and plans for stream crossings, drainage crossings, and intermittent drainages, and how this Project proposal will incorporate the new Pinedale RMP requirements for water crossings (Final RMP ROD, pages 2-45 through 2-54).
	Cathy Purves, Trout Unlimited	Further, there is a general lack of understanding of the groundwater and aquifer communication within this area and the region in general. There currently is an ongoing groundwater monitoring project occurring in the PAPA and its immediate boundaries based on a ROD requirement of the PAPA Oil and Gas Exploration and Development Project. We request a similar project be undertaken for this area based on the size of the area being affected (greater than 218,000 acres). (see Interim Groundwater/Aquifer Pollution Prevention, Mitigation and Monitoring Plan, Sublette County, Wyoming. December 2008. AMEC Geomatrix).
	Cathy Purves, Trout Unlimited	Pipe all produced water within the Project Area. Produced water and condensates should be piped out using liquid gathering systems (LGS) as they are doing in the Pinedale Anticline Project Area (PAPA). The use of LGS has significantly decreased truck traffic, air pollution, and water use, according to Shell, Inc. in a presentation to the Pinedale Anticline Working Group (PAWG) on February 25, 2010. More than 1.2 million barrels of water have been gathered using the LGS in the Anticline and to date, more than 60% of Shell's produced water is being gathered by a LGS (by September 2010 it is expected that 95% of the produced water will be gathered by LGS).
	Cooperating Agency Meeting with Sublette County and Others	Recommend BLM work with the District on monitoring and developing a monitoring protocol. Need to get parties together to get the baseline data and quantify impacts of new energy development.
	Cooperating Agency Meeting with Sublette County and Others	The groundwater aspect of the project needs to follow the regional framework – develop a plan on how monitoring will proceed. It is good to have a plan as part of the EIS, because adaptive management is in place right from the start.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that for the proximity of activities to water supply wells, Pinedale operators thought the 350' setback was only associated with water supply. The setback was actually for any potable water as defined by TDS (wells with TDS <10,000 mg/L). WOGCC the felt need to clarify this definition with operators, so that any wells in the setback area will need to be either plugged and abandoned or built to new standards (cement casing, bentonite seal, more sturdy casing materials). Would like to clarify that these regulations exist in EIS.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that permits restrict commercial disposal sites by volume. As long as proposed disposal amounts are within that limit, there is no new/connected action. In the EIS document, BLM can identify which commercial sites are likely to be used (also helps with transportation plan) to represent where water is going. If sites are not permitted properly, or if sites do not have projected capacity, then development of newer facilities would be a connected action. Do want to make sure sufficient capacity exists to deal with projected wastewater. If not available, are there other alternative methods/storage system. Keep in mind that additional disposal sites would take time to develop and permit.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Would prefer bridges for construction of new stream crossings.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There may be water disposal issues. The most likely disposal method will be active injection, but there also may be some surface disposal - this needs to be defined in the project description.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The primary way of crossing perennial streams in the project area are by circular or partial circle culverts. Potential mitigation for impacts for new roads/stream crossings may be replacing existing circular culverts with partial circle (flat-bottomed) culverts.

Category	Commenter	Comment Text
Water Resources		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The project should follow the regional framework for water resources modeling, should include work from cooperators, need project proponents to develop good surface/groundwater monitoring network prior to EIS development/permitting.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Regional framework does include framework for water resources modeling, with sufficient flexibility in how the model is implemented. It is a good example to work from.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Data gaps include surface water concerns associated with erosion and sediment loading to streams from roads (primary) and pipelines/pads. Discuss monitoring these concerns with game and fish - on same page with DEQ on erosion monitoring.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Data gaps in the project description include (based on Pinedale Anticline, but similar issues likely here): groundwater characterization; aquifer characterization for the project; number and location of water supply wells (stock, domestic) in the Pinedale area; ability to ID water availability based on well field information. Identification of data gaps is part of the steps in the framework monitoring document, listed as an important objective. Further identification of ID data gaps will require significant effort, and needs to first include a study of aquifer systems. This means that the process of filling data gaps may take time and money.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Aquifer characterization and identification of data gaps needs to be based on analysis by hydrologists/geologists. BLM has these resources available, in cooperation with DEQ and consultants. It is a significant time commitment – it has been useful on the Pinedale anticline to have consultants funded by operators.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The project should also think looking at different phases associated with identification of stressors/key points. Phase 1 should be a characterization study and phase 2 should be identification of triggers. This project has the advantage of knowing 'players' in the area (including industry and grazing lessees), and having previously built trust with them.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	It will be best to have developed a characterization/monitoring plan for inclusion in the EIS.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	One Alternative produced by BLM or Industry could identify the culvert locations that would be most crucial for fixes or improvements.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Need to avoid allowing surface contamination from reaching streams.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Action here would be to require project proponents to estimate volumes for water to be disposed of, and identify approved disposal method(s) and site(s) as part of the proposed action. Then compare permits for the sites to see if they will have enough capacity to meet the estimated project needs. If new or additional sites need to be added, these could be treated as connected actions. Air quality impacts from truck traffic needs to be included in EIS.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	When looking into updated water samples from producers, it could be good to recognize that practices for drilling oil or gas wells have changed over time, and have been improved to protect groundwater. Also state that the intent of updated sampling is not to identify problems due to past practices, but to establish which practices are effective and ineffective, and then move towards best practices.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	One emerging issue in the public arena is hydraulic fracturing. There should be some discussion or consideration of methods for disposal of flowback fluid after fracturing. The concern is where the fluids go. Hydraulic fracturing fluids may be less innocuous than drilling muds, but they can include different chemicals. If these fluids are or should be dealt with differently from drilling muds, there may need to be a discussion in the EIS on how these fluids are managed or disposed of. Some fluids can go to injection wells or reserve pits, but overall, disposal is not generally addressed. There should be some discussion between WOGCC and BLM to determine if are dealt with appropriately. There seems to be a public concern that fluids are source of contamination.

Category	Commenter	Comment Text
Water Resources		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Issues related to poor drilling practices include a lack of backflow controls (seen in Pinedale) causing high hydrocarbons in industrial water supplies. Haulers sometimes connect directly to wells causing back siphoning that pulls fluids from the water haul truck or from the pit into the associated aquifer. SEO has been requiring backflow prevention devices in Pinedale to haulers associated with new development. Pinedale ROD for the SEIS may have mentioned the need for these backflow controls, and required them as a BMP for new wells. The requirement did not necessarily apply to existing wells. This BMP is required for BLM, but may need to require updating to include existing water wells.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Request that EIS lists process, and notes requirements for well drilling, and mention how split estate issues differ (need landowner authorization for surface occupancy). BMP used to encourage clean water well construction practices, while including discussion on how it's linked.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	If the Colorado Salinity Compact is applicable, a discussion needs to be included in EIS, including if/how the Compact may be affected (e.g., well releases, runoff from construction/operation).
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that the EIS will need to carefully state BLM authority for allowance for discharge from facilities. DEQ is required to issue discharge permits if the planned/existing facility meets their criteria, but BLM can only limit the construction of facilities, especially if construction/operation occurs on private or state lands. The EIS should include a statement of such limitations if construction occurs on BLM lands.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note that a known surface water issue includes concerns from permitees associated with potential redirection of surface water flows used for stock water due to road construction.
	Dawn Ballou	Any opportunity to do monitoring of groundwater quality around the town of LaBarge should be a priority. They have contamination from historic activity. If new wells will be drilled near town, or old wells have new activity-water quality monitoring should be done. Is there any systematic program going on the ensure no new contamination of aquifers around the town of LaBarge? There are several VRP cases in that area with DEQ.
	Erik Molvar, Biodiversity Conservation Alliance	We are concerned about impacts to water quality from chemical spills, runoff from roads and wellpads, disturbance on unstable soils and/or steep slopes leading to stream sedimentation, contamination from well blowouts or improper completions, and contamination of groundwater from toxic fracking fluids. In order to satisfy the 'hard look' analysis of impacts pursuant to NEPA, the BLM must fully disclose the chemical consistency of any and all fracking fluids and drilling muds and their potential impacts on human health, vegetation, and wildlife.
	John Emmerich, Wyoming Game and Fish Department	All oil drilling operations and related equipment should be placed within adequate dikes to protect against possible spills.
	John Emmerich, Wyoming Game and Fish Department	It is recommended that geomorphological studies (Rosgen III, W ARSSS) of nearby waterways be conducted and monitoring of cumulative impacts from culverts and roads with 5% slope or greater be conducted.
	John Emmerich, Wyoming Game and Fish Department	We are very concerned with the indirect and cumulative impacts to aquatic resources associated with this project. The construction of roads and pads will change how water will run off of the landscape. This change will affect the infiltration rate of water, increase the velocity and quantity of water running across the landscape, and potentially could increase erosion and sediment deposition into nearby waterways. Roads have the potential for having the most profound impact on hydrology. Changes in hydrology across the landscape will then be reflected in changes in the geomorphology of perennial streams within the project area and downstream of the project area. Ultimately, changes in geomorphology will directly influence aquatic habitat which may impact fish populations.
	John Emmerich, Wyoming Game and Fish Department	In general, best management practices should be implemented to ensure that all sediment and other pollutants are contained within the boundaries of the work area. Equipment should be washed to prevent the spread of aquatic invasive species and disturbance to riparian habitats, wetlands, and perennial drainages be avoided. All construction activities such as well pads, roads, and pipelines can provide sediment to the river system that will likely be detrimental to aquatic resources.
	John Emmerich, Wyoming Game and Fish Department	Any pipelines that parallel drainages should be located outside the 100-year floodplain. Pipeline crossings of riparian areas and streams should be at right angles to minimize the area of disturbance.

Category	Commenter	Comment Text
Water Resources		
	John Emmerich, Wyoming Game and Fish Department	Pipelines crossing intermittent or ephemeral streams should be completed by trenching and stream banks should be stabilized using angular rock or willows.
	John Emmerich, Wyoming Game and Fish Department	Currently, we do not have information regarding the effects of this project on aquatic habitats. Much is known, however, about the effects of increased sediment in streams. Stream channels respond to increased sediment supply by adjusting their pattern (sinuosity) and dimensions. These changes may result in decreased pool depths, decreased riffle area, less diversity in channel substrate and increased lateral instability marked by eroding banks. These changes along with direct effects from increased sediment loading can affect macro invertebrate populations and diversity and decrease fish habitat. A common impact is a decrease in gravel and cobble used by spawning fish.
	John Emmerich, Wyoming Game and Fish Department	Pipelines crossing perennial streams should be done by boring underneath the stream not trenching.
	John Emmerich, Wyoming Game and Fish Department	Any pipeline crossing of water courses should be adequately protected against surface disturbances and damage to the pipelines which might result in a spill event.
	John Emmerich, Wyoming Game and Fish Department	Impacts to riparian habitats and stream channel health.
	John Emmerich, Wyoming Game and Fish Department	Sedimentation to the streams and impacts on channel stability and riparian habitats.
	John Emmerich, Wyoming Game and Fish Department	All drilling fluid storage ponds should be lined to eliminate possible groundwater contamination.
	John Emmerich, Wyoming Game and Fish Department	Impacts to habitat and population for BLM sensitive species within the project area. Those species include Colorado River cutthroat trout, northern leopard frog, and boreal toads.
	John Emmerich, Wyoming Game and Fish Department	Equipment should be serviced and fueled away from streams and riparian areas. These areas should be located at least 500 feet from riparian habitats. Equipment staging areas should be at least 500 feet from riparian areas.
	John Emmerich, Wyoming Game and Fish Department	Importation of invasive aquatic species.
	John Emmerich, Wyoming Game and Fish Department	Any riparian canopy or bank stabilizing vegetation removed as a result of construction activities should be reintroduced and protected from grazing for a minimum of 2 years or until well established.
	John Emmerich, Wyoming Game and Fish Department	Alteration of normal stream flow patterns.
	John Emmerich, Wyoming Game and Fish Department	No instream channel activity on Trail Ridge, North Beaver, South Beaver, Spring and LaBarge Creeks from June 1 - August 1 to minimize impacts to spawning and incubating native cutthroat trout.
	John Emmerich, Wyoming Game and Fish Department	Maintain a 500 foot riparian buffer for all perennial streams; Maintain a 300 foot riparian buffer for ephemeral or intermittent drainages.
	John Emmerich, Wyoming Game and Fish Department	Hydrostatic test waters released during pipeline construction could cause alterations of stream channels, increased sediment loads and introduction of potentially toxic chemicals into drainages, thereby resulting in adverse impacts to aquatic biota. Furthermore, release of water into drainages other than the source drainage can result in an unacceptable risk of introducing aquatic nuisance species (New Zealand mud snail, Zebra mussels, whirling disease spores, aquatic invasive plants, etc.). Introduction of aquatic nuisance species can be devastating to the ecosystems of vast basins in the receiving waters. To minimize impacts, we recommend the direct discharge of hydrostatic test waters to streams other than the source water be avoided. Discharge should occur into the source drainage in a manner that does not increase erosion or alter stream channels. Discharge should occur into temporary sedimentation basins and the dewatering of the temporary sedimentation basin should then be done in a manner that precludes erosion.
	John Emmerich, Wyoming Game and Fish Department	Impacts to water quality and quantity and the impacts those changes will have on water temperature, suspended sediment, bedload, dissolved oxygen, pH of the water, and nutrients in the water. These inputs will not only have negative impacts on fish but also other aquatic organisms within the watershed (macroinvertebrate, algae, amphibians).

Category	Commenter	Comment Text
Water Resources		
	John Emmerich, Wyoming Game and Fish Department	No storage ponds should be located within the 100 year floodplain or 500 feet from perennial drainages whichever provides the best protection to the aquatic resource
	John Emmerich, Wyoming Game and Fish Department	Accidental spills of oil and gas or other contaminants
	Joy Bannon, Wyoming Wildlife Federation	Produced water and disposal issues need to be analyzed and identified prior to the approval of this project as major changes to the water quality, water quantity, water temperature, and water composition will cause harm.
	Joy Bannon, Wyoming Wildlife Federation	A complete and accurate assessment of the impacts (such as contamination and demands on water), including reasonably foreseeable impacts and baseline sampling, should be conducted to ground and surface water related to this proposed development. This must be accomplished prior to approval of this proposed development.
	Joy Bannon, Wyoming Wildlife Federation	Conduct a comprehensive analysis on all waterways and drainages near or crossing pipelines, roads, water disposal facilities and staging areas.
	Joy Bannon, Wyoming Wildlife Federation	Implement a monitoring system for detecting spills around the natural gas well pads.
	Joy Bannon, Wyoming Wildlife Federation	Implement a monitoring system for detecting spills around the natural gas well pads.
	Joy Bannon, Wyoming Wildlife Federation	Provide analysis related to fraccing and how that will impact surface and ground water.
	Joy Bannon, Wyoming Wildlife Federation	Conduct a full range of alternative actions for disposing produced water that include: treatment, re-injection, evaporation ponds, and discharge. Evaporation ponds have leaked in the past and that downfall needs evaluated and potential impacts described if used. Discussions regarding tank lining, leakage and spill prevention need to be evaluated.
	Joy Bannon, Wyoming Wildlife Federation	Identify landowners and other water users who rely on the groundwater resources that will be impacted by the proposed development. Mitigation measures need to also be identified and provided.
	Joy Bannon, Wyoming Wildlife Federation	The BLM must not underestimate the amount of water that this natural gas production will require. Significant consequences can occur if not handle carefully and accurately. Not only will the proposed development reduce water and have potential contamination issues, produced water will also be taking place. Produced water is a concern for us and disposal issues will need to be analyzed and identified prior to the approval of this project as major changes to the water quality, water quantity, water temperature, and water composition will cause harm. Treatment and disposal of produced water may pollute subsurface waters. Channel erosion is another concern as this would increase the sentiment into streams and negatively impact the native trout and other fish populations along with altering the vegetation.
	Joy Bannon, Wyoming Wildlife Federation	Groundwater and surface water are essential to the survival of terrestrial and aquatic species. The proposed project will have an impact on the local and regional groundwater and surface water resources through changes in water levels and contamination from oil and gas activities. Spills, dissolved solids, fires and explosions occur and cause harm to groundwater, soils, wildlife, fisheries and amphibians. Pipeline leaks and the use of chemicals during the development and production stage occur and cause environmental harm.
	Joy Bannon, Wyoming Wildlife Federation	Proper baseline studies need to be conducted prior to the authorization of the proposed development. This is required as groundwater wells in and around the Jonah field, Pinedale Anticline, and fields in Pavillion, Wyoming have seen contamination with hydrocarbons and operators have been allowed to attempt denial of responsibility since baseline data wasn't available.

Category	Commenter	Comment Text
Water Resources		
	Kent Connelly, Coalition of Local Governments	The EIS should also provide for groundwater monitoring similar to the Pinedale Anticline Natural Gas Exploration and Development Project. The SCCD in conjunction with WDEQ, BLM and the operators developed the program and conduct water quality monitoring in the PAPA. Additionally, in light of the possibility of fracking chemicals escaping and the likelihood that EPA will soon reverse its standing policy and regulate such substances, particular care must be taken to properly drill, as well as maintain, natural gas wells to minimize the possible release of fracking chemicals into any aquifer.(2) The EIS needs to identify water sources as wells and springs may be affected by water used for drilling operations. The grazing allotments use springs and these may be affected if water is taken from shallow aquifers. If the water modeling shows no impact on the existing wells, then the EIS should so state. *[footnote]* www.house.gov/list/press/ny22 _hinchey/morenews/061609NaturalGasFrackingReportLanguage.html.
	Kent Connelly, Coalition of Local Governments	The EIS needs to include a detailed discussion of exporting and possible treatment of produced water. BLM, for example, must detail the source and distance of the water to be trucked both to and from the drilling sites. The EIS should also discuss the alternative of allowing the water to be evaporated in the field and the reasons that this option is not considered. Piping of produced liquids to centralized tank batteries offsite would also reduce traffic to individual wells.
	Kent Connelly, Coalition of Local Governments	The LaBarge Project Scoping Notice provides that produced water from gas wells would be stored in a tank on the well pad and transported by truck to an approved disposal site. Vehicle traffic would be reduced by having large enough tanks to enable emptying a water storage tank approximately once every 3 to 6 months for long-term well operations. In addition, produced water and oil from the majority of oil wells would be transported by pipeline to existing central facilities and trucked from the central facility to an approved disposal. A limited number of individual oil wells may require on-site facilities, in which case, the water would then be trucked to disposal from the site and the oil would be trucked to sales.
	Kent Connelly, Coalition of Local Governments	Finally, the Operators have stated they would avoid construction in the 100-year floodplain of the Green River, unless it can be demonstrated on a case-by-case basis that there is no physically practical alternative. BLM and the Operators should clarify that tank batteries and associated production facilities will be placed outside of the floodplain, and that any well heads within floodplains will be hardened.
	Kent Connelly, Coalition of Local Governments	CLG members recommend that the monitoring program adopt performance standards that focus first on vegetation, soil and water quality, rather than focusing primarily, if not exclusively, on wildlife population numbers. Development impacts are detectable earlier in vegetation and soil impacts, while wildlife numbers may take a year or more before there is a detectible change and those changes may be due to other regulatory actions, such as hunting limits. By setting the standards specific to the project soil, vegetation, and availability of water, the monitoring program will detect adverse changes more quickly and the affected entities can respond more quickly under this adaptive management model.
	Larry Svoboda, EPA, Region 8	The EPA also recommends the EIS disclose the extent to which aquatic habitat could be impaired by potential activities, including effects on surface and subsurface water quality and quantity, aquatic biota, stream structure and channel stability, streambed substrate, including season and spawning habitats, stream bank vegetation, and riparian habitats. Particular attention should be directed at evaluating and disclosing the cumulative effects of increased levels of erosion and sedimentation. Water quality parameters such as conductivity, dissolved and suspended solids, metals, pH, temperature, dissolved oxygen and physical aquatic habitat parameters may also be important monitoring indicators for determining stream or lake impairment or tress, as well as its sensitivity to further impacts. Existing water quality standards applicable to affected waterbodies should be presented to provide a basis for determining whether existing uses will be protected and water quality standards met.
	Larry Svoboda, EPA, Region 8	The EPA recommends the Draft EIS include an accurate description of surface and groundwater resources, as both are essential to understanding the potential effects of any management tentative. The Draft EIS should clearly describe water bodies within the analysis area which m y be impacted by development activities. Identifying affected watersheds on maps of the various alternatives helps convey their relationship with project activities. The EIS should analyze potential impacts to surface water, groundwater, and existing and potential drinking water. Impacts to consider include: water quality; quantity; and any adverse change to current water quality of the rivers, streams, and their tributaries. Best Management Practices (BMP) and mitigation measures should be used to protect these resources and designed into alternatives under consideration

Category	Commenter	Comment Text
Water Resources		
	Larry Svoboda, EPA, Region 8	EPA would like to discuss with BLM the air and water quality impact analyses and mitigation measures planned for this EIS. By proactively working together early in the EIS process, we have to be able to assist BLM with the development of an analysis which will adequately address potential air quality and water quality impacts and identify appropriate mitigation measures.
	Larry Svoboda, EPA, Region 8	Under the proposed action, produced water from the gas wells would be stored in a tank on the well pad and transported by truck to an approved disposal site. Produced water and oil from the majority of the oil wells would be transported by pipeline to existing central facilities. The NOI does not indicate that any produced water would be stored in surface impoundments. EPA recommends the EIS include further detail and clarification on the proposed produced water management. The decision to dispose of the produced water at approved storage facilities may resolve many of EPA's concerns regarding potential impacts to surface water quality and aquatic wildlife from n-site produced water surface impoundments. EPA commends BLM's mitigation measure that all operators replace reserve pits with closed loop drilling systems for well locations where the water table or other topographic restrictions would interfere with a reserve pit. All operators will line all reserve pits and pad them as necessary to prevent tearing or puncturing of the liner and fluid migration to the subsurface. For areas with significant oil and gas development, protection of groundwater, drinking water and irrigation on waters are key issues to address. The NEPA analysis should thoroughly describe groundwater resources-within the project area. This evaluation should include groundwater quality and quantity of all aquifers, recharge zones, any laterally extensive confining units or the lack there of, and zones of fracturing or faulting that extend to depth that could allow migration fluids or gas during well construction or hydraulic fracturing. The NEPA analysis should identify groundwater use including the location of domestic and public water supply wells and analyze potential impacts to water sources from all phases of the oil and gas development and operations including but not limited to: casing design and cementing, pit liner requirements, review of existing wells for inadequate casing and cementing related to new production zones. The NEPA analysis should provide baseline data of the condition and quality of groundwater prior to drilling. This evaluation should include any evidence of hydrocarbon impacts. If hydrocarbon impacts are found, a full suite of analytical information must be collected to evaluate the sources (anthropogenic or natural), volume and areas of impact. A monitoring plan and program should be developed to track any groundwater impacts as drilling and production operations occur. The NEPA analysis should identify all relevant and reasonable mitigation measures to protect these water sources, even if they are outside of the jurisdiction of the BLM. Mitigation measures to protect groundwater (i.e., backflow preventers, adequate casing) should be developed implemented for this project relative to fresh water zones. With proposed well depths ranging from 1,000 to 10,000 feet, identification of groundwater resources and incorporation of proper mitigation measures may be especially important for the LaBarge Platform project.
	Stephanie Kessler, The Wilderness Society	Given the impacts we are now seeing on the Anticline with contaminated wells, baseline groundwater analysis should be required of the operators and become part of the EIS so that the public can see what the current water quality of the area is, location of potential usable groundwater resources and thus the potential for degradation. Also, the amount of gallons of groundwater utilized for operations should be clearly stated within the analysis, so that potential groundwater draw-down is also quantified.
	Todd Parfitt, DEQ	Section 404. While not a state permit, this project may require a Section 404 permit from the US Anny Corps of Engineers. Any time work occurs within waters of the U.S. a 404 permit may be required. Additionally, a number of activities such as dam construction will require Section 401 certification from the WQD.
	Todd Parfitt, DEQ	Temporary Turbidity Variance. Wyoming has turbidity criteria for waters designated as fisheries or drinking water supplies. Any type of construction activity within these streams is likely to result in an exceedence of these criteria. However, in accordance with Section 23(c)(2) of the Chapter I Surface Water Quality Standards, the administrator of e Water Quality Division may authorize temporary increases in turbidity above the numeric criteria in Section 23 (a) of the Standards in response to an individual application for a specific activity. While it is not required to get this authorization, this project has the potential to exceed the turbidity criteria and a variance is recommended. An application must be submitted and a variance approved by the administrator before any temporary increase in turbidity above the numeric limits takes place. This process generally takes about 45 days.
	Todd Parfitt, DEQ	Discharge Permit. Any discharges to "waters of the state", including discharges from cofferdam dewatering, discharges from hydrostatic pipeline testing, or discharge of other waste waters must be permitted under the Wyoming Pollutant Discharge Elimination System (WYPDES) program. This program is part of the federal Clean Water Act but is administered by the WQD. For clarification waters of the state include rivers, streams, dry draws, wetlands, lakes, reservoirs and even stock ponds. This permit will require some sampling and will incorporate effluent limits for any constituents of concern.

Category	Commenter	Comment Text
Water Resources		
	Todd Parfitt, DEQ	Storm Water Associated with Construction Activities. This permit is required any time a project results in clearing, grading, or otherwise disturbing one or more acres. The disturbed area does not need to be contiguous. The permit is required for surface disturbances associated with construction of the project, access roads, construction of wetland mitigation sites, borrow and stockpiling areas, equipment staging and maintenance areas and any other disturbed areas associated with construction. A general permit has been established for this purpose and either the project sponsor or general contractor is responsible for filing a Notice of Intent (NOI) and complying with e provisions of the general permit. The NOI should be filed no later than 30 days prior to the start of construction activity.
	Todd Parfitt, DEQ	The WQD supports the recent BLM/USGS document "Regional Framework for Water Resources Monitoring Related to "Energy Exploration and Development" (USGS 2007). This document provides a framework for developing a monitoring strategy for measuring and mitigating water resource damage. This document should be referenced in the ETS and the monitoring- framework) should be followed to develop a monitoring plan for both surface and groundwater prior to any development.
	Todd Parfitt, DEQ	Spill Reporting. Chapter 4 of the DEQ Water Quality Rules and Regulations requires that tile WQD be notified of spills or releases of chemicals and petroleum products. The EIS should reiterate this and explain how soils, groundwater and surface water impacted by spills, leaks and releases of chemicals, petroleum products and produced water will be restored.
	Todd Parfitt, DEQ	In our experience, roads in areas of energy development are often designed and built for high volumes of vehicular traffic associated with well drilling, rather than the low volumes of traffic associated with production. It is not uncommon to have a wide crown and ditch road going into a producing well, even though the road has less than daily traffic. The BLM should analyze an alternative which minimizes surface disturbance and only builds roads to the minimal standard necessary for the production phase. Additionally, roads should be designed so that surface water for or across the road is not concentrated in a way that causes erosion. Runoff and erosion from roads, culverts and ephemeral channel crossings can compound and cause significant sediment loading as well as channel alteration both upstream and downstream of the crossings. It is important that all these locations are monitored so that any erosion can be mitigated before growing into larger erosion problems.
	Tony Gosar	State Engineers representative needs to attend all water quality problems and meetings.
	Tony Gosar	Need to protect and characterize subsurface water to a depth of 3,500 feet.
	Walt Gasson, Wyoming Wildlife Federation	The concerns we expressed in our comments dated 9.9.09 stand. With the addition of approximately 450 acre-feet of more water to be used within this proposed project, impacts to groundwater and surface water are exacerbated. Production water is also increased, requiring additional disposal sites and storage tanks.
Wetlands		
	John Emmerich, Wyoming Game and Fish Department	No Surface Occupancy (NSO). No surface occupancy stipulations should be applied to riparian corridors and within areas designated as wetlands. In addition, at least a 500 foot buffer should be applied to development near riparian and wetland habitats. We recommend that areas that support sage-grouse leks, sage grouse nesting habitat, sage grouse winter habitat, and certain areas where big game concentrate each winter should receive an NSO designation.

Category	Commenter	Comment Text
Wetlands		
	Larry Svoboda, EPA, Region 8	EPA considers the protection, improvement, and restoration of wetlands and riparian areas to be a high priority. Wetlands increase landscape and species diversity, and are critical to the protection of designated water uses. Possible impacts on wetlands include damage or improvement to: water quality; habitat for aquatic and terrestrial life; channel and bank stability; flood storage; groundwater recharge and discharge; sources of primary production; and recreation and aesthetics. Road and pipeline construction, land clearing, and earthwork generally include sedimentation and hydraulic impacts which at some level may cause changes to surface and subsurface drainage patterns and, ultimately, wetland integrity and function. Riparian habitats, similar to wetlands, are important ecological areas supporting many species of western wildlife. Riparian areas generally lack the amount or duration of water usually present in wetlands, yet are "wetter" than adjacent uplands. Riparian areas increase landscape and species diversity, and are often critical to the protection of water quality and beneficial uses. Due to the time it can take to adequately reclaim some disturbed wetlands, it is suggested that BLM require mitigation of wetland disturbance during the project operating time, and that mitigation for y particular wetland or riparian area begin concurrent with the disturbance, or even prior to project construction, if possible. As studies indicate that traditional mitigation is generally not successful in fully restoring wetland function, BLM should consider requiring a minimum of two-to-one mitigation of wetland disturbance. EPA also suggests that the BLM require complete avoidance of disturbance to any fen wetland (a Category I resource). The NEPA analysis should identify specific mitigation requirements, and require any development proposal to generate a wetland mitigation plan. As the project proceeds, EPA encourages the BLM to require delineation and marking of perennial seeps, springs and wetlands on maps and on the ground before development so industry employees will be able to avoid them. We also recommend establishment of wetland and riparian habitat 100-foot buffer zones to avoid adverse impacts to streams, wetlands, and riparian areas.
	Larry Svoboda, EPA, Region 8	EPA believes wetlands should be afforded the highest level of protection, either through restricting actions on certain lands or through the development and enforcement of best management practices (BMPs) that would provide needed protection of these valuable aquatic resources. We suggest the Draft EIS provide in detail BMPs that would be placed on the operators for all phases and actions involved in drilling and production. It is also important that the EIS include a detailed inventory and mapping of wetland resources within the area being proposed for drilling. This map should include both wetlands that are regulated under Section 404 of the Clean Water Act and wetlands that are determined to be non-jurisdictional and protected under Executive Order (EO) 11990 - Protection of wetlands (May 24, 1977). EO 11990 applies to all wetlands located on Federal lands. It directs all Federal Agencies to provide leadership and take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands.
Wildlife Habitat/Species		
	Bill & Martha Underwood	I discovered an abundance of data regarding the greater grouse indigenous to the region. The specie's condition is a good indicator of human impacts in the region. The report by Allison G. Lyon at Pinedale, WY, 5/2000, indicated that natural gas exploration activities resulted in fewer nests due to fewer males appearing at traditional lekking sites. Those present were observed to refrain from normal mating vocalizations because of competing noise from human activities. Nests that were produced suffered neglect caused by ground disturbances from drilling and traffic activities. By disturbing the attending hens, successful hatching and nurturing of chicks declined. Studies also indicate that once traditional leks are disturbed, the likelihood of successful mating pairs of grouse declines on alternative sites. Evidently, the recommended .25 mile buffer zones are inadequate and grouse are still negatively impacted by drilling and traffic
	Bill & Martha Underwood	The UGRBWGA guidelines appear to provide sensible minimal guidelines for providing safe, undisturbed, unfragmented habitat for the greater grouse. However, by their own admission, the available data doesn't indicate the full negative potential impacts of extraction industry activities caused by habitat alteration and disturbance.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Bruce Pendery, Wyoming Outdoor Council	It will be important to assure that big game and greater sage-grouse using this area receive adequate protection. As shown in Map 3-20 of the Record of Decision and Approved Resource Management Plan for the Pinedale Field Office (hereinafter, RMP), the LaBarge Platform Project area contains a great deal of crucial range for mule deer, elk, pronghorn, and moose. The BLM must ensure that connectivity between these crucial habitats is not disrupted and ensure that crucial ranges continue to provide the resources needed to maintain big game populations. As shown in RMP Map 2-36, there are several sage-grouse leks in this area. The project area is partly designated an Intensively Developed Field under the RMP; and partly designated a Traditional Leasing Area. RMP Map 2-9. The RMP provides for mitigation of impacts to big game and sage-grouse on pages 2-46 to 2-48. The BLM must ensure strict adherence to these provisions. In this regard we want to make special note of the requirement to minimize impacts that is mentioned several times in this section of the RMP. The word "minimize" means "[t]o reduce to the smallest possible amount, extent, size, or degree." The AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1119 (4TH ed.). Obviously this is no low standard. And besides the provisions in the RMP, the BLM is also mandated to minimize impacts to resources from oil and gas development by several other sources of authority, including the following.
	Bruce Pendery, Wyoming Outdoor Council	BLM's standard lease form, and again its 3101.1-2 regulation, also make it clear that BLM must minimize impacts to big game and sage-grouse before it can authorize operations in the LaBarge Platform Project area. Under the standard lease form, the BLM has made any rights it has granted "subject to" applicable laws,(3) terms, conditions, and stipulations in the lease,(4) regulations and formal orders in effect when the lease is issued,(5) regulations and order issued afterward, if not inconsistent with lease rights and provisions in the lease,(6) specific, non-discretionary statues,(7) and reasonable measures.(8) The sum total of these requirements that operations have been made subject to are that impacts must be minimized. Section 6 of the standard lease form calls for special mention. Under this provision of the lease, the lessee "shall conduct operations in a manner that minimizes adverse impacts to the land, air, and water, cultural, biological, visual, and other resources, and to other land uses or users." So again impacts must be reduced to the smallest possible degree. And were BLM to assert that the 3101.1-2 regulation trumps the lease terms, we would note that BLM itself recognized when it promulgated the 3101.1-2 regulation that "the authority of the Bureau to prescribe 'reasonable,' but more stringent, protection measures is not affected by the final rulemaking." 53 Fed. Reg. 17340, 17341 (May 16, 1988). So the requirement to minimize adverse impacts found in the standard lease form remains fully operative. *[footnote]* (3) BLM Standard Lease Form 3100-11. (4) *Id.* (5) *Id.* (6) *Id.* (7) 43 C.F.R. § 3101.1-2. (8) *Id.*
	Bruce Pendery, Wyoming Outdoor Council	Given these requirements to "minimize" impacts the BLM must ensure that the repeated statements in the RMP that impacts will be minimized are given full effect. The BLM must ensure that the LaBarge Platform Project reduces impacts to big game and sage-grouse to the "smallest possible amount, extent, size, or degree." Only this will meet the BLM's legal obligations, under both the RMP and these other sources of authority. We would note that this is a substantive obligation – the obligation to minimize impacts is emphatic, clear, and stated in numerous sources of authority. Nor is this requirement a mere "procedural" or "analytical" requirement, which may be all that the National Environmental Policy Act (NEPA) requires; instead the obligation to minimize impacts is a substantive obligation that applies *in addition* to any NEPA analytical obligations.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Bruce Pendery, Wyoming Outdoor Council	Potential protections to be afforded to the sage-grouse call for special mention in this regard. At this point it is beyond dispute that the standard old stipulations that prohibit development within one-quarter mile of a lek and that seek to protect nesting habitat within two-miles of a lek during certain time periods are not effective. They do not minimize impacts and their use has not prevented declines in sage-grouse populations. Thus, application of these limitations does not meet the BLM's obligation to minimize impacts. Recent support for this is provided in the U.S. Department of Energy report regarding wind energy and sage-grouse, available at http://www.pnl.gov/main/publications/external/technical_reports/PNNL-18567.pdf. We particularly direct the BLM to pages A.2 and A.3 where the studies of sage-grouse impacts resulting from oil and gas development (including the Holloran study) are reviewed and the ineffectiveness of these old stipulations is documented. The Wyoming Game and Fish department through its new mitigation measures available at http://gf.state.wy.us/wildlife/wildlife_management/sagegrouse/FINALStateLandCoreAreaSageGrouseStips731208.pdf had also made it clear that enhanced levels of stipulation are required to protect the sage-grouse. Given the tenuous status of sage-grouse populations in the West and recent declines in Wyoming's own grouse populations, we urge the BLM to require more stringent mitigation measures for the sage-grouse so as to ensure that it meets its obligation to minimize impacts.
	Bruce Pendery, Wyoming Outdoor Council	In addition, the Interior Board of Land Appeals (IBLA) decisions in *Yates Petroleum Corp.,* 176 IBLA 144 (2008) and *William P. Maycock et al.,* 177 IBLA.1 (2009) make it clear that the old standard sage-grouse stipulations are no longer acceptable. In *Yates* the IBLA emphasized that BLM can impose requirements that are more stringent than the two standard stipulations even if there is no stipulation in place specifically reserving this authority, because of the authority given to BLM by a wide range of other laws (many of which were reviewed above). 176 IBLA at 155-56. And as the IBLA recognized in *William P. Maycock* "[i]t is contradictory for BLM to rely solely on those [old] mitigation measures in issuing an [environmental assessment] and [finding of no significant impact] at the same time that it acknowledges the validity of more recent research that demonstrates that those mitigation measures are not as effective as originally anticipated, and, indeed, has acted on the basis of more recent research in another comparable situation to impose more stringent mitigation measures in two [environmental assessments]." 177 IBLA at 19. Thus, we believe it is clear that requirements that are more stringent than the two standard old stipulations must be imposed if impacts to sage-grouse from the LaBarge Platform Project are to be minimized, as required by numerous lines of authority.
	Bruce Pendery, Wyoming Outdoor Council	The BLM should also consider the recent research of Hall Sawyer with regard to the advisibility of allowing year-long drilling. In his most recent study he states, "our results suggest that wintering mule deer are sensitive to varying levels of disturbance and that indirect habitat loss may increase by a factor of >2 when seasonal restrictions are waived." Sawyer H. et al. 2009. *Influence of Well Pad Activity on Winter Habitat Selection Patters of Mule Deer.* J. Wildl. Manage. 73(7): 1052-61. We ask the BLM to fully consider this most recent research. In addition, the BLM should consider full compliance with Appendices 5 and 12 in the RMP, Fluid Mineral Best Management Practices and Seasonal Wildlife Stipulations for All Surface Disturbing Activities.
	Bruce Pendery, Wyoming Outdoor Council	With respect to big game the following must be noted. It appears that BLM may consider allowing year-long drilling in this area, as it did on the Pinedale Anticline. The BLM must carefully consider whether this is appropriate. First, we must note this language from the Pinedale Anticline Supplemental Environmental Impact Statement Record of Decision. "The decision to grant relief [from seasonal stipulations] is unique to the PAPA, specifically the Core Area and the PDAs and will not likely be appropriate for other areas because of the level of existing development, the lease hold patterns, and the unprecedented voluntary level of cooperation that the Operators have provided for this development plan. Record of Decision Final Supplemental Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project at 24. In making the decision to grant this unprecedented waiver from long-stand policy, the BLM made it clear the decision was based on several unique conditions being in place – like the voluntary suspension of leases in a large area, the widespread use of pad drilling, and the establishment of a large mitigation fund. Before the BLM even considered allowing year-round drilling in the LaBarge Platform Project area, it must ensure that similar unique protections are put in place. In addition, the Pinedale Anticline project is premised on many unique features, such as the designation of a core area where intense development is allowed accompanied by a flank area where little or no development is allowed, the designation of special Management Areas in the flanks where additional enhanced requirements apply, the designation of a special River corridor management area, a limitation on the total number of well pads in the Pinedale Anticline Project Area, and a limitation of no more than one well pad per quarter section (160 acres). Until similar requirements are put in place for the LaBarge Platform project, relaxation of long-standing protections like the winter drilling limitations should not be considered.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Cathy Purves, Trout Unlimited	Moose are a big game species that are on the decline in western Wyoming and impacts to their habitat should be fully evaluated and mitigation options considered.
	Cathy Purves, Trout Unlimited	The BLM should investigate the cumulative impacts from an increase in the size and scale this project has on wildlife populations adjacent and to the north of this project. If we continue to marginalize habitat and force big game and sage grouse to compensate for loss of their winter habitat, the BLM will be responsible for the loss of some of the largest big game herds in the West and the decline of the sage grouse. FLPMA requires that BLM has an obligation to minimize environmental impacts and any authorizing action that causes harm, increases ongoing harm or creates undue degradation to the public lands makes BLM in violation of federal policy statutes (43 U.S.C. § 1732(b)).
	Cathy Purves, Trout Unlimited	Winter drilling must not be allowed. Ongoing wildlife impact studies support the original conclusion that big game and sage grouse habitat would be affected by the large scale impacts associated with oil and gas development. Winter drilling, especially at the rate of this project's projection of 40 years, will affect the longevity of wildlife populations, based on these studies. Sage grouse are teetering on the brink of being listed and the BLM must make decisions that clearly take into account the effects that oil and gas development have on wildlife stability.
	Cathy Purves, Trout Unlimited	According to BLM staff, there are a number of old abandoned well sites within the LaBarge Project Area. Prior to destroying any new wildlife habitat, the proponents should access the energy resource from these old sites, in addition to reclaiming areas surrounding these old sites, in order to decrease the amount of impact to important crucial wildlife habitat located in the area. The use of horizontal and directional drilling should be a condition of the permit, based on independent access analysis to these resources.
	Cathy Purves, Trout Unlimited	Fragmentation to wintering grounds, calving areas, migration routes, and summer areas must be evaluated and the least amount of impact should be made. The BLM's RMP mentions several times throughout the document the requirement to minimize impacts. We ask the BLM to hold to this requirement and make sure the operators provide substantial measures for avoiding or minimizing any impacts.
	Cathy Purves, Trout Unlimited	Concentrating development within specific areas that do not infringe in critical wildlife and fisheries habitat or their important migration corridors should be a priority management plan for this project and such scenarios should be included in alternatives. In order to do this, a pre development inventory of the LaBarge Platform area must be conducted to gain an understanding of the habitat conditions, wildlife populations and their movements, and water resource concerns.
	Cathy Purves, Trout Unlimited	Should these two areas be outside of the Project boundaries, TU would like to see additional impact analysis conducted that includes cumulative effects likely to occur from such close development access. Migration routes for big game and water issues remain of high concern.
	Cathy Purves, Trout Unlimited	Recognition of the Governor's Sage Grouse Core Management Plan should be included in this analysis.
	Cathy Purves, Trout Unlimited	Rock Creek ACEC is an existing ACEC area that is unavailable for oil and gas leasing and has been recognized by the BLM as having both relevance and importance criteria for scenic, fisheries and wildlife values. The RMP specifically states that this area will be protected to enhance wildlife habitat and ensure quality aquatic habitat for the sensitive CRCT, in addition to providing winter crucial range for elk (page 2 54). The Project map either needs to be revisited in its delineations or this portion of the ACEC needs to be withdrawn.
	Cathy Purves, Trout Unlimited	The BLM should specifically analyze elk migration patterns and use in the Riley Ridge area and their winter use in lands east of the area and down into the project area. The Cimarex Project and its specific impacts to elk are of particular concern and should be included in this analysis-specifically how Cimarex's use of critical winter range may impact movement of elk onto the LaBarge Platform area.
	Cathy Purves, Trout Unlimited	This project area contains important crucial wintering habitat for big game species such as moose, elk, mule deer and antelope. This is verified with the Wyoming Game and Fish Department and shown on Map 3 20 in the Pinedale RMP ROD. The scoping statement does not identify elk habitat in their list of management issues and concerns.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Cathy Purves, Trout Unlimited	We recognize that most of the streams in this project area are located on private lands. We feel that private lands provide significant fisheries and wildlife habitat and should be equally protected from BLM actions in permitting oil and gas projects. All these streams flow into the Green River. They provide a source for agricultural operations and recreational opportunities. Discussion of how the BLM intends to protect these waters from contamination and harm must be included in the DEIS.
	Cathy Purves, Trout Unlimited	The BLM should consider an alternative that does not include winter year round drilling. The proponents are claiming that winter drilling allows more efficiency in drilling, less wildlife impacts, and their ability to maintain a stable workforce. It should be contingent upon the companies to provide data supporting these claims, as it has been noted by local communities within Sublette County, Sweetwater County and Lincoln County that winter drilling did not necessarily mean benefits to these communities. Many companies lost employees because of the lack of desire to work in harsh winter conditions, unavailable housing opportunities, cost of living issues, and lack of work. Many bold claims were made by industry about lowering crime, stabilizing the work force, and impacting less habitat. We ask that the BLM provide the proof that these claims warrant their new request for winter drilling.
	Cathy Purves, Trout Unlimited	According to the data presented in the Pinedale RMP (Map 2 36) sage grouse nesting and brood rearing habitat occurs directly inside of the southern portion of the project area. BLM must implement development restrictions that include no surface occupancy, no winter drilling, decrease in road traffic, etc. and increase its buffer delineation to protect this crucial and threatened bird. The DOE has recently provided information on the impacts wind development has on sage grouse and specifically mentions that impacts from oil and gas development and the ineffectiveness of the old standard stipulations of one quarter mile (http://www.pnl.gov/main/publications/external/technical_reports/PNNL_18567.pdf., pages A.2 and A.3).
	Cathy Purves, Trout Unlimited	Similar to the Pinedale Anticline Project Area (PAPA), delineation drilling should also be considered in any of the alternatives offered. For the proponent(s) to continue drilling throughout the winter months, it is imperative that a full understanding and assessment be undertaken that defines the most crucial areas to be avoided and how to work within the least crucial areas. That said, science and the ongoing big game wildlife studies in the PAPA and the Jonah (Sawyer, et al, 2009; Berger, et al, 2008; Holloran, 2008) are showing that winter or year round drilling are having negative consequences to wildlife and wildlife habitat in addition to air quality issues. Based on those study results and their implications to wildlife populations within the entire region, we remain unconvinced that winter drilling does not pose harm to wildlife.
	Cathy Purves, Trout Unlimited	As addressed in our September 2009 scoping comments, TU urges the BLM to require wooden or fiber matt systems in sensitive habitat regimes, including riparian and wetland areas. There are demonstrated success stories in the Jonah Field where EnCana applied mats to protect valuable sagebrush steppe habitat. Successful mitigation projects such as this one need to be incorporated into new mitigation plans as a method for protecting these habitats.
	Cathy Purves, Trout Unlimited	A more thorough discussion should be included for sage grouse, especially in light of the new (March 5, 2010) Department of the Interior's Instruction Memorandum on Sage Grouse Management Considerations for Energy Development (No. 2010-071) and the "candidate" species listing status. Reference discussion should also be included that discusses the Governor's Sage Grouse Core Habitat Management Plan (2009).
	Cathy Purves, Trout Unlimited	According to the Pinedale RMP Map 2 33, the eastern portions of Rock Creek ACEC and Lake Mountain WSA might be included within the LaBarge Project Area. These two special areas contain important wildlife and fisheries values that were deemed worthy of special protection by BLM.
	Cathy Purves, Trout Unlimited	The Project Description lacks any mention of bird protection from reserve pit fluids. Flags have been shown to be worthless (Audubon, 2009) but netting appears successful.
	Cathy Purves, Trout Unlimited	The operators are already asking for waivers and exceptions prior to submitting any detailed Plans of Development. The BLM must employ all recent species management guidelines, internal Instruction Memorandums (in particular IM No. 2010-071 on sage grouse, dated March 5, 2010), and incorporate the Wyoming Game and Fish "*Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats" (May 2009)*.
	Cathy Purves, Trout Unlimited	The BLM must include the Wyoming Game and Fish Department's "Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats".

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Cathy Purves, Trout Unlimited	BLM's authorization of this project potentially threatens wildlife species which will be negatively impacted and directly lost through the permitting of this project. BLM must specifically account for impacts to sage grouse habitat within this project area.
	Cathy Purves, Trout Unlimited	The BLM must include alternatives that represent thoughtful and science-based plans for protection the remaining wildlife habitat within this project area.
	Cathy Purves, Trout Unlimited	TU continues to be concerned about the habitat status as it becomes increasingly fragmented, impacts to important watersheds, the impacts to crucial big game and sage grouse habitat, and the sensitivity of coldwater fisheries to surface and subsurface activities from oil and gas drilling. The scale of this project will result in an industrialization of this landscape which, region-wide, contributes to the already pervasive shrinkage of important wildlife habitats.
	Cathy Purves, Trout Unlimited	The Wyoming Game and Fish Department (WGFD) recently revised their Oil and Gas Recommendations in May 2009 and the WGF Commission approved them for use. TU specifically requests that these Recommendations be part of the DEIS and Final EIS record, to be used in decisions and planning efforts for all oil and gas impacts that will occur within this Project area.
	Cooperating Agency Meeting with Lincoln County	The county is opposed to off-site mitigation. Prefer that mitigation be on-site and voluntary. There are already too many elk, don't need wildlife mitigation.
	Cooperating Agency Meeting with Sublette County and Others	There was a general discussion about raptor nests and installing anti-perching devices on power lines. Concerned about maintaining the current raptor population and not having ravens move in. Mentioned that a predator statement in the EIS from the BLM would be good. Consider raven controls as a mitigation measure in nesting habitat if impacts are anticipated.
	Cooperating Agency Meeting with Sublette County and Others	There is a lack of baseline data, particularly on sage grouse in the area.
	Cooperating Agency Meeting with Sublette County and Others	Concerned that impacts to sage grouse from energy development could have a spillover effects for grazing.
	Cooperating Agency Meeting with Sublette County and Others	Vegetation use for livestock is similar to that for wildlife. Counties want to be part of the discussion on mitigation. Work to have reclamation benefit to wildlife and livestock grazing.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Will Lynx be talked about in this document?
	Cooperating Agency Meeting, BLM State Office, Cheyenne	WGFD state herpetologist has some existing protocols (survey) for amphibians and lizards and can supply monitoring protocols to BLM. Base monitoring surveys would be auditory for frog.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The anticipated sage grouse decision is not anticipated until March 8.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Wildlife monitoring on many projects is difficult to maintain at current levels, so may not be appropriate to apply to this one. Monitoring in specific locations may help fisheries. Generally, a more holistic approach is acceptable.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Also note that distribution lines will be close to roads, so there will not be much additional surface disturbance. WGFD would support this idea, especially with the 9 known leks and winter concentration areas for grouse in the area.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	There may be fencing issues associated with deer/grouse. Are potential fences wildlife friendly? Generally fencing meets wildlife-friendly standard, however, the project area has not yet had a fencing inventory done. As allotments are reevaluated, fencing may change, and would likely increase. The Upper Green River Valley Land Trust has been running the fence replacement project.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Cooperating Agency Meeting, BLM State Office, Cheyenne	The project area includes mule deer winter range, and the population has struggled due to habitat issues (drought, fragmentation), and overwinter mortality is a large component of the size of the herd. Rand's Butte (with Cretaceous Mountain and the Hogsback area) area supports one of the last free ranging elk populations in Sublette County, which makes elk winter range in the area an important issue. Elk do not do well with Oil and Gas development, as they do not go into developed areas. Another issue is sage grouse, since there are at least 9 leks and winter concentration areas in the project area. Also, Dry Basin/Chimney Butte support antelope. West of the project area, drainages coming off forest support big game. Raptors are also a concern. There are an estimated 300-500 elk on native ranges in the project area, which are significantly above the Piney elk herd objective. Despite meeting the herd objective, WGFD still sees the area as important to the herds. Mule deer in the area objectively are at ~50% of the herd objective, and are having trouble meeting target numbers. Pronghorn are at objective level (within 10% of stated objective for this area). Also are maintaining moose populations which are currently below the herd objective, but are slowly building towards the herd objective. There is less wolf activity than in the northern area.
	Cooperating Agency Meeting, BLM State Office, Cheyenne	Note there is not much elk crucial range in the project area. The crucial range is predominantly mule deer, with some elk range to the west. There will be some elk at the south end of the project area (winter habitat), dropping into the hogsback.
	Dustin Child	Drilling activities should be phased. Winter activities should be held to a minimum and not allowed thru the entire development area each winter.
	Dustin Child	I am concerned with the negative impacts drilling could have on the mule deer during the winter months. A large portion of the Wyoming range mule deer herd winter in the La Barge area. Drilling during the winter months could cause increased amounts of stress to the deer during a very vulnerable time during the winter months. Increase in truck traffic will also increase the amount of deer hit and killed on the roads.
	Dustin Child	A road management programs should be developed with speed limits.
	Dustin Child	Existing unnecessary roads within the development area should be reclaimed.
	Dustin Child	Directional drilling and a Liquid Gathering System should be required of the developers during crucial winter months.
	Erik Molvar, Biodiversity Conservation Alliance	Mule Deer. We are concerned that this project will have direct and cumulative impacts on mule deer herds, and that currently used winter ranges and migration corridors will suffer unacceptable impacts as a result. BLM should analyze mule deer habitat use throughout the project area and exempt crucial ranges and migration corridors from surface-disturbing activities.
	Erik Molvar, Biodiversity Conservation Alliance	We are concerned that the Labarge Field itself is already so badly fragmented that it is largely devoid of value for a number of large and/or sensitive species of wildlife. Downspacing will eliminate habitat effectiveness for remaining smaller animals that still occur within the field. But the spread of habitat fragmentation from the Labarge Field into neighboring undeveloped lands adds a much more extensive impact, as populations of sensitive wildlife already stressed by the presence of the old Labarge Field may be driven onto the ground by the added strain of additional development, BLM should also be analyzing impacts of this project on a regional scale, analyzing core habitat areas and connecting wildlife corridors that maintain dispersal ability and mitigation routes.
	Erik Molvar, Biodiversity Conservation Alliance	Sage grouse. The sage grouse is declining rangewide, and local studies in the Upper Green River Valley have shown that this species is heavily impacted by oil and gas development. Holloran (2005) found that not only do well densities greater than 1 well site per 699 acres have negative impacts on breeding populations at lek sites, but also that producing wells within 1.9 miles of a lek and well drilling activity within 3.1 miles of a lek also depressed lek populations for grouse. In addition, this study documented that oil and gas activity resulted in the depopulation of developed areas and that nesting sage grouse hens tended to disappear over time from developed areas. With this in mind, wellpad density should be capped at no greater one well per square mile throughout the project area, and surface disturbing activities should be prohibited within 3 miles of active or recently active sage grouse lek sites.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Erik Molvar, Biodiversity Conservation Alliance	Raptors. The typical BLM stipulations for nesting raptors hinge upon Timing Limitations that extend from 800 to 1500 feet from raptor nests. These are inadequate to protect nesting raptors on two counts. First of all, the buffer size is too small: Two-mile buffers should be applied for nests used by the extremely sensitive ferruginous hawk, while one-mile buffers should be applied for other birds of prey. Secondly, the timing limitation stipulation is itself flawed because it allows wells to be constructed adjacent to raptor nest sites as long as construction/drilling activities are conducted outside the nesting season. Under these stipulations, once raptors return to nest sites following well construction, they are subjected to disturbance from vehicles and human presence likely to flush nesting birds from the nest and expose eggs or nestlings to death by overheating, cooling, or dehydration. No Surface Occupancy measures are the appropriate mitigation measure in the case of lands in close proximity to active or recently active raptor nests.
	Erik Molvar, Biodiversity Conservation Alliance	We are concerned that the proposed project will have major impacts to wildlife, over and above the impacts currently being suffered by wildlife populations as a result of current development. Specific concerns follow by species.
	Erik Molvar, Biodiversity Conservation Alliance	Native fishes. We are concerned about the direct and cumulative impact of the project on native fish populations, particularly Colorado River cutthroat trout, roundtail chub, bluehead sucker, and flannelmouth sucker. We are concerned that spills of chemicals will make their way into local waterways. We are concerned that construction of roads and wellpads in close proximity to streamcourses will result in sedimentation that will choke spawning gravels and change stream morphology.
	Erik Molvar, Biodiversity Conservation Alliance	White-tailed prairie dogs. White-tailed prairie dogs have declined markedly in the Upper Green River Valley over the course of recent decades, and remaining active prairie dog colonies should be zealously protected by BLM so that their recovery and expansion to historical levels can occur. Not only are they BLM Sensitive Species, but they are also a keystone species upon which many other types of sensitive wildlife (such a mountain plover, burrowing owls, and ferruginous hawks) depend to a significant to almost total degree, Prairie dog colonies need to be mapped and population trends should be established in the forthcoming EIS to fulfill NEPA baseline information requirements, and mitigation measures should be applied preventing road construction or well development within ¼ mile of active colonies, and preventing powerline siting within ½ mile of active colonies.
	Erik Molvar, Biodiversity Conservation Alliance	Mountain plovers. BLM should map occurrences and nesting habitat for mountain plovers within the project area and avoid the development of roads or wellpads within ½ mile of identified nesting habitats. Roads and well pads may become population sinks for mountain plover, which can be attracted to these as feeding sites to be killed by collisions with motor vehicles.
	Erik Molvar, Biodiversity Conservation Alliance	Pygmy rabbits. BLM should survey the project area for population size and trend as well as occurrences of burrows and scat in order to satisfy baseline information requirements. Identified pygmy rabbit habitat should be avoided by at least ¼ mile for the purpose of well siting, and the continuity of suitable pygmy rabbit habitat (i.e. tall sagebrush along draw bottoms and in other localities) should be maintained in an unfragmented state: road systems should be designed to minimize the number of crossings of pygmy rabbit potential habitat. This species is heavily affected by habitat fragmentation by roads, which may present complete barriers to movement, dispersal, and breeding connectivity.
	Erik Molvar, Biodiversity Conservation Alliance	Elk. The Labarge Elk Study has already shown that the Labarge Field has interrupted the migration of elk North of Labarge Creek to suitable winter Range in the Upper Green River basin (Fred Lindzey, personal communication). It appears that under this project, full field development will spread northward from the existing Labarge Field along the foothills of the Wyoming Range, extending the blockade of migrating elk northward. BLM should analyze migration patterns of elk in the portion of the project area extending northward from existing field to identify currently used migration corridors and crucial winter ranges or elk, and these corridors and wilder ranges should be excluded from surface-disturbing activities to prevent additional impacts to the resident elk population.
	Erik Molvar, Biodiversity Conservation Alliance	Pronghorn. We are concerned that the expansion of the Labarge Field will interrupt migrations and degrade the crucial habitats for pronghorn. Wintering and fawning areas as well as migration corridors intersecting the project area should be mapped and analyzed, and these areas should be withdrawn from eligibility for surface-disturbing activities.
	Erik Molvar, Biodiversity Conservation Alliance	Bighorn Sheep. We are concerned that this project will have significant impacts on the population of Bighorn Sheep that inhabit the Fish Creek Buttes area of the Wyoming Range. The wintering habitat and migration corridors for this species should be mapped and analyzed, and wells and roads should not be permitted inside crucial winter ranges and migration corridors.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Jenny & Gary Amerine, Greys River Trophies	I am concerned with the negative impacts energy development could cause the Wyoming Range Deer Herd on their winter grounds. Between 35 40% of this deer herd winters within the boundaries of this proposed development. Herd number objective is currently over 35% below the Wyoming Game and Fish Department target number. Habitat and minimal physiological stress is key to survival and growth of this deer herd. We have already seen a decline in doe/fawn ratios over the past 9 years caused primarily from poor habitat conditions. In 2000 doe/fawn ratios were 85 fawns per 100 does and in 2008 it was down to 56 fawns per 100 does. Human disturbance during critical winter months would result in increased physiological stress leading to even lower doe/fawn ratios. With this proposed development deer could be pushed to lesser quality habitat areas. Deer could also be pushed closer to highways increasing the potential of vehicle collisions resulting in increased deer mortalities.
	Jill Miller, Wyoming Game and Fish Department	Currently, habitat management in the vicinity of this field is the number one priority on my work schedule due to the management of the WY Range mule deer herd. I would love to further discuss any of these items with you further and remained involved in the planning process.
	Jill Miller, Wyoming Game and Fish Department	Lastly, I don't want to overstep my role, but I want to indicate that from a wildlife habitat perspective, improving currently "reclaimed" areas in the LaBarge, Calpet and Deer Hills areas is paramount if more land is going to be disturbed. In it's current condition, many old pads, pipelines and roadways are only growing rabbitbrush and weed species. Recovery of these pieces of land needs to happen if the footprint of disturbance is going to be increased again. Also, improving travel plans to eliminate many two-tracks and reclaim them with native shrub communities is important.
	Jill Miller, Wyoming Game and Fish Department	Third, the cattle grazing management in N LaBarge specifically is critical to the condition of the wildlife habitat on these winter ranges. I have been working with Amber Robbins on the permit renewal process that will be part of the N LaBarge Landscape Plan. Part of that process will include gathering data that WGFD has on many treatments that have been completed in this area. There are several control and treatment monitoring sites that have trend data over many years. Many of these treatments were part of a mitigation package from the last big round of development. I believe these data sets will be able to provide good info for potential mitigation projects developed in this cycle.
	Jill Miller, Wyoming Game and Fish Department	Second, I have some winter range shrub data sets in the Calpet area on Mountain Mahogany stands. These stands are critical to our deer herds on winter range. They make up a very small amount of acres on the landscape, but serve a critical role in the survival of deer throughout the winter. This community type should be give special management consideration in this process and the 13 year old data set I have may be able to assist with this.
	Jill Miller, Wyoming Game and Fish Department	Please see the attachment for the map of the mule deer areas completed. The boundary was specifically drawn with the EOG planning area in mind (especially east of the Green River). Rusty Kaiser has been our primary BLM contact on these projects.
	Jill Miller, Wyoming Game and Fish Department	First, we will have two reports in this winter that should be able to provide significant incite on the current vegetation conditions. The Moose and Mule Deer Habitat Assessments were two projects that WGFD contracted the Teton Science School to complete in 2009. The reports will include vegetation transects in representative communities, many photo points, many management suggestions, and an extensive GIS geodatabase to go with the written report. The reason for doing these projects was specifically to generate projects (from shrub treatments, cattle grazing management, travel management, conservation easements, weed control, and well beyond.) The field crews were specifically instructed to keep mitigation ideas in mind when going through the area. I believe the report and data should provide a good set of info for this planning document.
	John Emmerich, Wyoming Game and Fish Department	No possession of firearms by employees or contractors on, to, or from work site.
	John Emmerich, Wyoming Game and Fish Department	Habitat Enhancement: Cooperative habitat enhancement work on federal, state, and/or private lands to enhance and restore mule deer winter ranges.
	John Emmerich, Wyoming Game and Fish Department	Nongame native species of special (NSS) concern, as described in WGFD's State Wildlife Action Plan (SWAP), that occur or likely occur in the project and surrounding area include: NSS 1: Canada lynx NSS2: long-eared myotis, long-legged myotis, Townsend's big-eared bat, Greater Sage Grouse, Trumpeter Swan NSS3: water vole, wolverine, big-brown bat, northern flying squirrel, silver-haired bat, water shrew, greater sandhill crane, peregrine falcon, willow flycatcher Sensitive or MIS species: northern goshawk, flammulated owl, boreal owl.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	John Emmerich, Wyoming Game and Fish Department	Potential Impacts to Hunting Opportunity. The potential impacts to big game hunting recreation could be significant given the proposed intensity of development. An increase in miles of road will increase motorized access and expose big game animals to increased levels of stress throughout the year. Serious impacts will likely occur to localized sub-populations of the Wyoming Range mule deer herd, Sublette moose herd, and Piney elk herd that occupy the Greater EOG Platform Infill project area.
	John Emmerich, Wyoming Game and Fish Department	The proposed project should be designed in such a manner that will not cause big game displacement from these important seasonal ranges. This may include a development proposal that occurs in phases in order to minimize adverse impacts over time. The narrow winter habitat requirements of moose and their concentrated use of riparian willow bottoms will necessitate that these habitats are protected from development as much as possible. If some degree of protection is not provided to riparian willow bottoms, moose numbers and distribution will likely be adversely impacted by development and upgrade of additional miles of roads in the area especially in the Middle and South Piney Creeks, Beaver Creeks, and the lower slope of Deadline Ridge.
	John Emmerich, Wyoming Game and Fish Department	It is essential that a comprehensive effort be devoted to road design and placement. Placement of roads in or adjacent to crucial riparian willow drainages could displace moose away from these sensitive areas, and may expose moose to illegal hunting. A mitigation measure to ensure big game are not displaced from habitats adjacent to roads and well pads could include closing new roads during hunting seasons and seasonal range closures. This mitigation measure should be evaluated in the EIS.
	John Emmerich, Wyoming Game and Fish Department	The potential impacts to big game hunting, especially to the Wyoming Range mule deer herd, will be significant if the BLM does not restrict motorized travel and decommission some user created trails and roads throughout the EOG Platform Infill Boundary in crucial wildlife habitats. In addition, the several hundred elk that spend the winter on the Riley Ridge/Rands Butte and Hogsback/Graphite Hollow winter ranges could abandon these native winter ranges and move to adjacent private properties where elk damage to stored crops and commingling with livestock could occur. Any development associated with this Infill Project should ensure there is a commitment from the operators to maintain elk at pre-development numbers on these winter ranges. It is essential that development not cause elk to abandon these native winter ranges.
	John Emmerich, Wyoming Game and Fish Department	The PRMP provides specific guidance on what activities may warrant standard mitigation guidelines used in the EIS development process. The second of these two ways to implement mitigation guidelines is "in the analytical processes of both developing the alternatives and analyzing the impacts of the alternatives." Specifically, mitigation guidelines "are used to develop a baseline for measuring and comparing impacts among the alternatives; to identify other actions and alternatives that should be considered; and to help determine whether more stringent or less stringent mitigations should be considered." In order to comply with PRMP direction, these guidelines (Surface Disturbance Mitigation Guideline and Wildlife Mitigation Guideline) should be subject to an extensive evaluation in cooperation with BLM and WGFD personnel to determine relevance to the proposed development. In addition, we recommend that during the development of the EIS that a "Mitigation Proposals" section be included in the EIS document that proposes and analyzes a series of mitigation actions that could be implemented to offset the impacts of the gas field development on crucial wildlife habitats.
	John Emmerich, Wyoming Game and Fish Department	Well Pad Fencing - All fencing should be wildlife friendly, and not restrict wildlife movements to daily and seasonal ranges. In general, we do not support fencing of reclamation sites. One of the purposes of reclamation is to provide forage for wildlife. Fencing should be permitted only if it can be demonstrated that wildlife are preventing successful revegetation. Reclamation fencing should be evaluated on a case by case basis.
	John Emmerich, Wyoming Game and Fish Department	Year-round Drilling. We do not support yearlong drilling. We believe the activity associated with active drilling rigs, and the associated human disturbance on the well sites, will result in elevated stress and mortality to wildlife that spends the winter within the Infill project area.
	John Emmerich, Wyoming Game and Fish Department	Mule Deer Research: A 3 to 5 year mule deer research project to radio-collar 100 mule deer and monitor mule deer response to the development on the Birch Creek/LaBarge; Hogsback, Rands Butte, and Deer Hill winter range segments of the Infill project area; and Study would be conducted by independent research consultant.
	John Emmerich, Wyoming Game and Fish Department	Seasonal and Timing Restrictions. Restrictions for all human and surface-disturbance activities are outlined in the Pinedale Resource Management Plan. Human use restrictions governing surface disturbance activities should apply for big game crucial winter ranges (November 15 - April 30), and elk calving areas (May 1- June 30). We recommend that all activities associated with this project proposal be prohibited in areas designated as crucial big game winter ranges and parturition areas during the time frames outlined in the PRMP.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	John Emmerich, Wyoming Game and Fish Department	Additional aerial surveys to document sage-grouse winter ranges and undocumented leks during first three years of the project development.
	John Emmerich, Wyoming Game and Fish Department	The proposed project area is used by many species of nongame birds and mammals. Consequently, all surface-disturbance activities associated with the proposed project should adhere to the appropriate timing and acreage restrictions outlined in the PRMP for raptor nest sites and riparian habitat. We recommend the BLM conduct raptor nesting surveys and consult with USFWS on the most recent approach used to model "risk" associated with individual raptor nests. This approach would aide in developing a comprehensive Avian Protection Plan.
	John Emmerich, Wyoming Game and Fish Department	Radio-telemetry data collected over the past decade has indicated that Canada lynx may be present in the extreme western portion of the project area, and use the forested stands for movement corridors, foraging, and resting sites.
	John Emmerich, Wyoming Game and Fish Department	Wolverines are known to occur west of the project area in the Wyoming Range. Wolverines have recently been observed north, west, and southwest of the project area.
	John Emmerich, Wyoming Game and Fish Department	In 2009, a grizzly bear was documented in the Middle Piney Creek watershed, west of the project area. Consequently, we recommend grizzly bears be considered in any assessments of Threatened and Endangered (T &E) Species.
	John Emmerich, Wyoming Game and Fish Department	We recommend that the EIS identify wildlife habitat parameters within the treatment area, and develop measures to maintain, and where possible, enhance habitat for sensitive and nongame wildlife species of concern.
	John Emmerich, Wyoming Game and Fish Department	Use of Appendix B and Appendix C of the WGFD document mentioned above is recommended for developing alternatives and appropriate mitigation.
	John Emmerich, Wyoming Game and Fish Department	Additional Wildlife Data Collection - Several species of wildlife currently occupying the proposed project area will need expanded data collection efforts to monitor responses to increased development. These include:
	John Emmerich, Wyoming Game and Fish Department	It is imperative that any proposed action within the Infill project area not limit, restrict, or otherwise adversely affect the ability of elk to remain on these native ranges throughout the winter. To maintain the integrity of these winter ranges, restrictions governing road construction should be implemented where concentrations of elk are found during annual surveys. To protect these areas and ensure their continued viability as crucial elk winter ranges, we recommend No Surface Occupancy restrictions be incorporated into the Final EIS.
	John Emmerich, Wyoming Game and Fish Department	Wildlife inventories and monitoring should be conducted by the proponents.
	John Emmerich, Wyoming Game and Fish Department	The proposed project area is used by many species of nongame birds, mammals, and sage grouse. Some of these species may be designated as Sensitive, Threatened and Endangered, or designated candidate species for potential listing under the Threatened and Endangered Species Act. Consequently, all surface-disturbing activities associated with the proposed gas field development should adhere to the appropriate timing and acreage restrictions outlined in the Pinedale Resource Management Plan (PRMP) (page 10) for raptor nest sites, riparian habitat, and sage grouse leks and nesting habitats.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	John Emmerich, Wyoming Game and Fish Department	There is sage grouse nesting and brood rearing habitat in the project area. The Western Association of Fish and Wildlife Agencies (WAFWA) have developed habitat management standards that govern the conservation of sage grouse habitat. These measures should be reviewed and adopted by the BLM for planning purposes for the proposed development. The BLM should have a record of all known raptor nest sites in the project area. We recommend that all wildlife stipulations outlined in the PRMP governing oil and gas exploration near key sage grouse habitats be implemented for this project. These stipulations include, but may not be limited to the following: • Prohibit surface disturbance or occupancy within a minimum of 0.5 mi of the perimeter of occupied sage grouse leks. • Avoid surface disturbing activities and geophysical surveys in suitable nesting and early brood-rearing habitat within 2 miles of an occupied sage grouse lek and within identified sage grouse nesting and early brood-rearing habitat outside the 2 mile buffer, from March l5 through June 30. This requirement should be stipulated as a seasonal restriction. Select sites for construction that will not disturb suitable nesting cover or brood-rearing habitats within 2 miles of an occupied lek, or within identified nesting and brood-rearing habitats outside the 2 mile perimeter. • From March 1 through May 15, avoid human and vehicular activity between 6:00 p.m. and 8:00 a.m. daily, within 0.25 mi. of the perimeter of occupied sage grouse leks. • Avoid disrupting auditory displays, from March 1 through May 15.
	John Emmerich, Wyoming Game and Fish Department	Riley Ridge/Rands Butte and Hogsback/Graphite Hollow Elk Winter Ranges. These winter ranges support a combined total of 350 - 500 elk in most winters. These are the last remaining native elk winter ranges in the Piney elk herd south of the Hoback River that support elk at this high number. The only other areas that support elk at these numbers are on WGFD operated elk feedgrounds. It will be important to minimize development on these winter ranges during the course of the Infill development.
	John Emmerich, Wyoming Game and Fish Department	In the Graphite Hollow/Hogsback Winter Range complex elk make extensive use of available forage on west exposures in the southern portion of the herd unit. Typically 200-300 elk occupy this winter range, but as many as 500-600 elk have been observed using the wind-swept slopes on the Hogsback during years of heavy snow accumulations.
	John Emmerich, Wyoming Game and Fish Department	During the last 10 years, 100 - 200 elk use the Riley Ridge/Rands Butte winter range complex. These elk that occupy this native winter range may occupy Cretaceous Mountain for brief periods during the winter. On rare occasions, they move eastward into the Dry Basin areas.
	John Emmerich, Wyoming Game and Fish Department	It is essential that elk are not displaced from these winter ranges onto private property, into adjacent elk herds, or onto the Finnegan elk feed ground because of increased levels of oil and gas development. Elk that are displaced from native winter ranges onto private property may cause damage to stored crops or commingle with cattle and horses. WGFD would be required to compensate landowners for crop damages.
	John Emmerich, Wyoming Game and Fish Department	No Surface Occupancy (NSO). No surface occupancy stipulations should be applied to riparian corridors and within areas designated as wetlands. In addition, at least a 500 foot buffer should be applied to development near riparian and wetland habitats. We recommend that areas that support sage-grouse leks, sage grouse nesting habitat, sage grouse winter habitat, and certain areas where big game concentrate each winter should receive an NSO designation.
	John Emmerich, Wyoming Game and Fish Department	There is also a possibility that elk displaced from native winter ranges in Area 94 may travel south to winter ranges in Area 102. Should this level of elk displacement occur into the adjacent herd unit, the result could be reduced hunting opportunity in Area 94, and an increase in the number of elk above the desired population level in Area 102.
	John Emmerich, Wyoming Game and Fish Department	Adherence to the PRMP regarding standing snags should be incorporated into the EIS. Specifically, snags should be marked in a visible manner with signs to prevent their removal during the construction of any well pads and access roads.
	John Emmerich, Wyoming Game and Fish Department	Wyoming Range Mule Deer Winter Ranges. The Wyoming Range Mule Deer herd is one of the state's largest deer populations. A total of four major winter range complexes lie within the herd unit. There are two major winter ranges that support 70-85% of the population each winter. One of these is the Big Piney/LaBarge winter range. This winter range encompasses the EOG Platform Infill project area, and provides winter habitat for 35-40% of the entire herd unit. Over the last 30 years, the vast majority of the mule deer that winter on the Big Piney/LaBarge winter range complex are observed during annual winter surveys within the Greater EOG Platform Infill boundary.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	John Emmerich, Wyoming Game and Fish Department	The Wyoming Range herd is arguably one of the most popular mule deer populations to hunt trophy class bucks during the fall hunting season in western Wyoming. During post hunt surveys the percentage of trophy class bucks observed is undoubtedly the highest in western Wyoming. In 2007 and 2008 over 50% of all bucks classified in this herd unit were documented on the Big Piney/LaBarge winter ranges. The highest percentages (59% in 2007) of trophy class bucks (i.e. antler spread measurements that exceed 25 inches) observed herd unit wide were documented on this winter range.
	John Emmerich, Wyoming Game and Fish Department	In recent years this segment of the deer herd has been unable to sustain population growth, and as a result, continues to remain below the desired population objective of 50,000 deer. We believe the inability of this population to achieve the population objective is due primarily to reduced fawn production and over winter survival. The reduced recruitment of fawns into the population is a result of the poor physical condition of pregnant doe deer which is symptomatic of poor nutritional value of winter range browse and stress associated with elevated human activity on this winter range.
	John Emmerich, Wyoming Game and Fish Department	In order to increase the ability of the winter habitat to support mule deer populations into the foreseeable future, a cooperative effort should be developed between oil and gas producers and government agencies. This effort should focus on working to restore the productivity of the habitat, and minimizing future impacts. Therefore, we believe it is essential that during the development of the EIS the energy production companies developing these oil and gas reserves partner with the BLM and WGFD in the recovery and restoration of this segment of the Wyoming Range mule deer herd and its winter habitat.
	John Emmerich, Wyoming Game and Fish Department	A table with motorized road/trail densities would be of assistance in analyzing impacts to wildlife and addressing consistency with the PRMP. Some areas in the infill project area appear to have excessive road densities and appear redundant. Thus, we recommend closing and reclaiming duplicate road loops in an effort to reduce motorized road densities to lessen impacts to wildlife and crucial habitats.
	John Emmerich, Wyoming Game and Fish Department	Recently with the use of advanced technology, researchers have been able to capture more accurate and quantifiable information on the affects of motorized travel on wildlife. The research of Haiganoush et al. (2006), Naylor (2006), Wisdom et al. (2004), Hebblewhite (2008), and Sawyer (2009) address the effects of different recreation and oil and gas development activities on elk and mule deer. Their findings should be considered and incorporated within the road system design, and the travel management plan, by depicting 500 and 1,000 meter buffers along all motorized routes where wildlife habitat effectiveness has been compromised. In their recent research, Haiganoush et al. (2006), found that elk responded to motorized All Terrain Vehicles (ATV) at distances of a 1000 meters and greater. Some significant responses were recorded at distances as far as 2 km. They also found elk response to A TV s was significantly smaller ... "when the distance to the nearest ATV route was larger (>500 m)". Given the above research results and in an effort to visualize potential impacts to wildlife (elk), we have asked that a 500 m and 1,000 m buffer be applied to proposed open motorized roads. Proposed road densities appear to pose a considerable impact on elk disturbance and security.
	John Emmerich, Wyoming Game and Fish Department	Motorized roads should only remain open to vehicles with the stipulation that these roads be designed to avoid crucial habitats and seasonal ranges, and result in minimal disturbance to wildlife and big game that currently use the project area. The PRMP provides specific guidance with reference to transportation plans and road design. Roads designated as open to motorized vehicles should be constructed in accordance with standards described in PRMP. Roads that are designated as open to motorized vehicles should reduce sedimentation into streams, provide buffers along live steams, govern steepness of slope grade, identify seasonal road closures, and adhere to wildlife seasonal range restrictions. We encourage the BLM to reroute/close routes that make extensive use of riparian and wetland systems. Such habitats provide important habitat for a myriad of wildlife species and compromise a low percentage of the Infill landscape.
	John Emmerich, Wyoming Game and Fish Department	Elk displaced from Riley Ridge/Rands Butte winter ranges to the Finnegan elk fee ground could increase exposure of native range elk to brucellosis and other infectious diseases associated with elk feedgrounds. In addition, the exposure to brucellosis associated with feedgrounds usually results in an increased seroprevalence that may exceed 15%.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	John Emmerich, Wyoming Game and Fish Department	1) Create habitat maps for development area, taking into account ephemeral water features such as vernal pools and playas. Mapping will occur within 200 meters from proposed roads (100 meters on each side) and a circular radius of 200 meters from each pad. 2) Contact the Wyoming Game and Fish Department to determine sensitive habitats or species within the development area. If amphibian monitoring is required, amphibian protocols can vary based upon species present. Examples of requested protocols could include: a. Acoustic breeding surveys should be conducted at least three times annually on all water features. Surveys periods should be temporally spaced to include peak calling of all amphibians estimated to be within the study area. b. During spring, small funnel traps should be placed in aquatic features to assess salamander populations. c. During late summer, visual encounter surveys should be conducted to look for post-metamorphic anurans. These surveys should be designed to assess recruitment into the population. Surveys should have a time or area constraint in order to estimate relative abundance. d. Additional protocol information can be found in the reference: Measuring and monitoring biological diversity: standard methods for amphibians. 1994. W. R. Heyer, M. A. Donnelly, R.W. McDiarmid, L.A. C. Hayek, and M. S. Foster, editors. Smithsonian Institution, Washington, D.C. Pp 364. 3) Mitigation may be required if sensitive habitats or species are impacted. 4) Because of breeding chronology and the secretive nature of some species, two years of survey are recommended before development begins. During pre-development surveys, important amphibian areas (such as breeding sites) should be designated for avoidance during construction. Surveys should be conducted at least three years post-construction to determine possible effects of development on amphibian species.
	John Emmerich, Wyoming Game and Fish Department	We encourage the project proponents to provide information to their employees and contractors about wildlife laws and regulations, and about the sensitivity of wildlife to disturbance.
	John Emmerich, Wyoming Game and Fish Department	For developing and analyzing alternatives, the Bureau of Land Management should incorporate recommendations provided in the following document developed by the Wyoming Game and Fish Department (WGFD): Recommendation for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats, June 1, 2009. This document can be accessed on our Department website at http://gf.state.wy.uslhabitatlindex.asp. This is a planning tool that provides disclosure of potential wildlife-related concerns, and suggests mitigation and management options to incorporate into project designs and operations to benefit wildlife.
	John Emmerich, Wyoming Game and Fish Department	Garbage disposal should be strictly monitored and open pits or landfills prohibited to minimize bear/human conflicts. Garbage containers shall be bear-proof.
	John Emmerich, Wyoming Game and Fish Department	Project proponents should comply with Federal wildlife laws and regulations to eliminate/minimize potential impacts to endangered, threatened, proposed, or protected species, and their habitat (i.e. Migratory Bird Treaty Act, Golden Eagle/Bald Eagle Act) determined to be present through on site.
	John Emmerich, Wyoming Game and Fish Department	Cumulative effects on nongame native species and T&E species should incorporate analysis of impacts from other proposed and ongoing projects in the immediate and adjacent areas in the Wyoming Range including other oil and gas leases, timber harvesting (past and proposed), livestock grazing, road building, and recreation use. Given the large number of historic, current and proposed projects in adjacent habitat, and the quality of habitat in the LaBarge Infill project area, a conservative approach is recommended in developing additional oil and gas resources.
	John Emmerich, Wyoming Game and Fish Department	All compressor engines/exhaust stacks should be adequately muffled, to reduce noise levels to 49dBA; 10 dBA above background noise at the fenced perimeter of the production plant site to prevent disturbance to wildlife.
	John Emmerich, Wyoming Game and Fish Department	Powerlines and conductors should be constructed in accordance with raptor-safe design criteria.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	John Emmerich, Wyoming Game and Fish Department	1) Create habitat maps for development area, taking into account major habitat types. Mapping will occur within 200 meters from proposed roads (100 meters on each side) and a circular radius of 200 meters from each pad. 2) Contact the Wyoming Game and Fish Department to determine sensitive habitats or species within the development area. If monitoring is required, reptile protocols can vary based upon species present. Examples of requested protocols could include: a. Perform multiple time or area constrained reptile surveys in all available habitats. Surveys should be designed to look for species presence and relative abundance. Surveys should take into consideration the natural history of all reptiles species thought to be on the study area. Special effort should be made to survey potential reptile hibernacula during spring and fall migrations. b. Effort should be made to look for secretive species. This could include night surveys, flipping cover objects, or setting drift fences along specific habitat features. c. Road mortality surveys should be conducted to determine the effects of roads on local reptile species. d. Additional information regarding survey protocols may be found in the draft PARC document: Inventory and Monitoring: Recommended Techniques for Reptiles and Amphibians, with application to the United States and Canada (Accessed 20 August 2009). 3) Mitigation may be required if sensitive habitats or species are impacted. 4) Because of the secretive nature of many reptile species, it is recommended that surveys begin at least two years in advance of infrastructure development. During predevelopment surveys, important reptile areas (such a hibernacula) should be designated for avoidance during construction. Surveys should continue at least 3 years post construction to determine the effects of development on reptile species.
	John Emmerich, Wyoming Game and Fish Department	Additional data is needed regarding the effects of wind energy development on reptiles.
	John Emmerich, Wyoming Game and Fish Department	Information regarding the effects of energy development on reptiles is lacking. Energy development is likely to affect reptile species differently based upon life history. Development infrastructure could potentially increase basking opportunities for many reptiles, but could disturb daily routines due to noise disturbance. Many reptile species are dependent on rocky outcroppings or accessible geologic features for hibernation. It is recommended that these features are avoided to ensure the integrity of hibernacula (overwintering areas or dens). Additionally, many species of reptile are reliant on cover features present on the landscape. It is recommended that fence rows, fallen trees, prairie dog colonies, and potential basking rocks are left in the condition in which they were found. Direct road mortality is of particular concern for reptile species. It is recommended that the minimum amount of roads be placed upon the landscape. Drivers should be instructed to avoid reptiles that are basking upon road surfaces. It is recommended that surveys be conducted on a diverse array of reptiles and habitats to ensure that impacts are minimized.
	John Emmerich, Wyoming Game and Fish Department	Potential impacts to reptile species will vary based upon location and species present. Impacts that could potentially occur would include: 1) mortality associated with infrastructure development; 2) direct mortality from workers (e.g., deliberate killing of snakes); and 3) collision and mortality due to vehicles.
	John Emmerich, Wyoming Game and Fish Department	We recommend no net loss of habitat function within the biological community that encompasses the project area, or if impacts are likely, replacement of the affected habitats or enhancement of similar habitats. Also, the zone of influence surrounding well pads, roads and facilities should be considered for individual species. A voidance of oil and gas project areas by wildlife can result in decreased effectiveness of habitat and increased physiological stress (Hebblewhite 2008). Roads and wells can result in barriers to movement, habitat fragmentation, and loss of habitat effectiveness (Sawyer et al. 2009). Oil and gas development can result also in increased sedimentation and decreased habitat quality of aquatic ecosystems.
	John Emmerich, Wyoming Game and Fish Department	Information regarding the effects of energy development on amphibians is lacking. Energy development is likely to affect each amphibian species differently based upon life history. Permanent bodies of water, wetlands, ephemeral pools, and playas are of particular concern. Amphibians are highly dependent on water to complete their lifecycle (aquatic tadpole or larval phase). Loss of water on the landscape during the larval period could negatively affect amphibian populations. This effect could be exacerbated with successive years of water loss. Road mortality may increase during specific times of year based upon breeding chronology. Spring breeding migrations and summer post-metamorphic emergence, result in amphibian congregations. Large mortality events could occur if these congregations were located on or near roads. Roads should not bisect or run immediately adjacent to any water feature, or prevent anurans from reaching adjacent habitat. Noise could interrupt breeding congregations of frogs and toads. Additional data is needed regarding the effects of energy development on amphibians. It is recommended that surveys be conducted on a diverse array of amphibians and habitats to ensure that impacts are minimized.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	John Emmerich, Wyoming Game and Fish Department	Big game herd unit objectives are vital to the maintenance of big game populations for those herds that use BLM-administered lands. It is important that the BLM work with WGFD to ensure that population objectives are coordinated and maintained during the implementation of this project. The cooperative agreement between the agencies is designed to address certain land use management decisions to ensure that these outcomes do not have adverse impacts on WGFD established population objectives. Since this Infill could have significant impacts on mule deer population levels over time, we recommend that the BLM ensure that appropriate provisions are identified in the Final EIS that ensure reductions in these populations will not occur.
	John Emmerich, Wyoming Game and Fish Department	Potential impacts to amphibians species will vary based upon location and species present. Impacts that could potentially occur include: 1) mortality associated with infrastructure development; 2) disturbance due to noise; and 3) collision and mortality due to vehicles.
	John Emmerich, Wyoming Game and Fish Department	The potential impacts of open roads and Canada lynx were identified as a significant issue in the development of the lynx conservation strategy. Lynx were considered relatively common in the northeast section of the Wyoming Range in the early 1970s (Squires et al. 2003). The only recent records for reproductive lynx in Wyoming outside of Yellowstone National Park have been in the Beaver Creek drainage (Squires et al. 2003; LCAS, p13, 44). The two breeding adults radio-collared by WGFD and tracked for a number of years both eventually died of starvation in late winter, indicating that winter foraging is likely a limiting factor (Squires et al. 2003, WGFD records). One of these mortalities occurred immediately south of the LaBarge Infill project area in Fontenelle Creek. Surveys in 2000 and 2001 indicated that 3-5 lynx currently occupied the range (Squires et. al. 2003). The Wyoming Range and its tributaries may be the most important recovery area for this species in the future, provided that adequate habitat can be maintained, especially winter foraging habitat. A cautious approach would seem to be called for in road creation and improvement and removal of timber for pad sites that may currently provide high quality lynx foraging and denning habitat in the extreme western portion of the LaBarge Infill project area. Small isolated populations are vulnerable to demographic, genetic, and environmental stochastic processes and minor impacts could potentially eliminate lynx in the Wyoming Range (Squires et. al. 2001). The Lynx Conservation Strategy (LCS) has identified that development of oil and gas leases can impact lynx habitat with the greatest impact likely from the development of road access to facilitate exploration and development. Increased access for competing predators can result in increased competition for prey. Any decreases in prey resulting from oil and gas development may be critical for the remnant lynx population remaining in northwestern Wyoming that likely travels through the Wyoming Range and habitat to the north. Direct mortality from traffic and illegal shooting could also result from increased road access.
	John Emmerich, Wyoming Game and Fish Department	The proposed project area encompasses designated crucial winter/yearlong and parturition range for the Piney Elk Herd; crucial winter/yearlong, and parturition range for the Sublette Mule Deer Herd; crucial winter/yearlong range for the Sublette Moose Herd; and spring/summer/fall range for the Sublette pronghorn herd. The project area is also an important daily and seasonal big game migration corridor. The general vicinity around the project is occupied by black bears, and mountain lions. Black bears are suspected to build winter dens on the steeper, heavily timbered north exposures in the project area. The proposed infill project area, especially the extreme western portions along Deadline Ridge, is believed to be historical Canada lynx habitat. These adjacent watersheds may be occupied and used by lynx as migration corridors and seasonal ranges.
	Joy Bannon, Wyoming Wildlife Federation	"Winter ranges tend to be much more limited in area, forcing deer to congregate at much higher densities. Thus, a comparatively small loss of winter range can be as destructive as a much larger impact on summer range." (WGFD, Mule Deer Initiative, 2007) This project will have a direct impact on the mule deer and elk herd's habitat, which serves as its food source, water source, open space and shelter, and thus a direct impact on their population numbers will result as the landscapes carrying capacity is reduced. The mule deer herd number objective is currently more than 35% below the Wyoming Game and Fish Department's target population amount. This objective will see an even higher percentage if this project is developed, especially throughout the winter months, as other problems will/could be exasperated - drought, habitat encroachment, low recruitment, roads, invasive plant species and poaching. Wyoming has seen a long-term drought and this is expected to continue in the coming years. Drought will cause water sources to dry and the quality and amount of forage available will be of less quality. "Under these conditions, big game "are unable to accumulate sufficient fat reserves and they enter the winter in poor condition. Inevitably, weakened [big game] succumb to higher mortality, especially under normal to severe winter conditions" (WGFD, Mule Deer Initiative, 2007). This factor will be compounded by impacts of habitat loss as the project calls for 604 new wells on 454 new well pads. It should be noted that the life of the project is estimated at 40 to 50 years long.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Joy Bannon, Wyoming Wildlife Federation	Use and apply landscape-scale assessment and state wildlife action plans to identify game/wildlife species needs and conservation priorities to conserve game/wildlife species, populations and habitats.
	Joy Bannon, Wyoming Wildlife Federation	We request that every contractor and operator provide education to all employees regarding poaching, the rules and regulations of ethical hunting and fishing, hunter safety, and the fines involved with poaching.
	Joy Bannon, Wyoming Wildlife Federation	Evaluate the competition for habitat that will occur among wildlife species when they are forced onto small tracts of land with fragmentation.
	Joy Bannon, Wyoming Wildlife Federation	Identify migration corridors for all wildlife species within the project area and on a landscape scale that considers migration corridor changes due to development in the Green River Basin and the Cimarex plant. Also, provide an action plan for if or when migration corridors are fragmented or lost.
	Joy Bannon, Wyoming Wildlife Federation	Provide the most current impact data to wildlife and fisheries from mineral extraction development and production.
	Joy Bannon, Wyoming Wildlife Federation	Provide current inventory studies and a full analysis (which may need to be conducted before the proposed project can be approved) of wildlife habitat, wildlife species, current riparian and stream habitat conditions for fisheries that depend on the project area. In addition, a complete inventory of coldwater fish species upstream and downstream of the project area is needed.
	Joy Bannon, Wyoming Wildlife Federation	A management goal of the 2008 Pinedale Resource Management Plan is to "maintain or enhance aquatic and wildlife habitat." (Pinedale RMP, 2-45, Nov. 2008) Along with to, "maintain functioning big game habitats and migration corridors that allow free movement and use of habitats." (Pinedale RMP, 2-45, Nov. 2008) The Bureau of Land Management's (BLM) own management goal will not be met if the LaBarge Infill Project will be allowed to develop. Habitat loss will diminish the ability of that habitat to support big game and may change the vegetation's composition and productivity. Loss in vegetation means a loss in nutrition for big game, which influences "body condition, ovulation, conception, gestation, lactation, and survival" (WGFD, Mule Deer Initiative, 2007). Other influences affect "winter survival, size at birth, timing of birth, survival of fawns and even sex composition of fawns." (WGFD, Mule Deer Initiative, 2007) Mule deer and elk range free and depend solely on the natural habitat it ranges in. "Development and other activities that disturb even a small portion of a herd's seasonal ranges can have major, population-level consequences." (WGFD, Mule Deer Initiative, 2007) We have already seen a decline in mule deer doe/fawn ratios over the past 9 years caused primarily from poor habitat conditions. In 2000, doe/fawn ratios were 85 fawns per 100 does and in 2008 they were down to 56 fawns per 100 does.
	Joy Bannon, Wyoming Wildlife Federation	A review by the Sporting Conservation Council, the federal advisory committee convened to address the facilitation of hunting heritage and wildlife conservation, indicates significant concerns: "With energy activities in the West increasing, concerns about maintaining game/wildlife species, populations and habitats at the wildlife-energy interface are also increasing. Given the magnitude of present and anticipated energy development in the West, it is doubtful that game/wildlife species and associated habitat values can be maintained without increased interagency collaboration, reducing on-site habitat impacts, and developing landscape-scale efforts to enhance habitats off-site." (Sporting Conservation Council, Draft White Paper: Oil and Gas Development and Wildlife Conservation, May 7, 2008). The Sporting Conservation Council identifies a number of goals to promote "improved collaboration and landscape-scale habitat efforts." The Draft White Paper recommends that federal land management agencies "use and apply landscape-scale assessment and state wildlife action plans to identify game/wildlife species needs and conservation priorities to conserve game/wildlife species, populations and habitats." *[footnote]* [5]United States Department of the Interior and United States Department of Agriculture, Sporting Conservation Council, Draft White Papers, pages 1 - 84, June 2008.
	Joy Bannon, Wyoming Wildlife Federation	Wildlife, specifically mule deer, pronghorn, and sage grouse, have already been severely harmed by the existing development within the Pinedale planning area. For example, a study conducted on the Pinedale Anticline has shown that pronghorn exposed to oil and gas development had only 69.3 percent survival rates while those not exposed to natural gas development had 95 percent survival rates. We believe this project will mirror the other Green River Basin developments and if this project is allowed to continue at the rate and style proposed, our wildlife populations will be heavily impacted with high levels of big game deaths especially due to their crucial winter range being developed.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Joy Bannon, Wyoming Wildlife Federation	*Population Survival.* The Wyoming Wildlife Federation is critically concerned about the Wyoming Range mule deer herd and the Piney elk herd within the LaBarge Infill Project because the project area is their crucial winter range. Reason for our concern about the health and low survival rate probability of these herds is due to research already performed on the Pinedale Anticline natural gas development project. According to research by WEST, Inc. (Sawyer *et al.* 2005, Sawyer et al. 2006) notes there is a "consistently declining" mule deer population on crucial winter ranges on the Mesa portion of the Pinedale Anticline. Pinedale Anticline DSEIS at 3-111. There has been a "disconcerting" 46 percent decline in the mule deer abundance on the Pinedale Anticline since natural gas development intensified in about 2000, with no similar decline in the control area not subject to natural gas development. Sawyer *et al.* 2005 at 45. This decline is not explained by the deer simply "moving somewhere else:" Evidence shows the deer are not using alternative habitats and they are not emigrating in substantial numbers. *Id. See also* Sawyer *et al*. 2005 at 46 (Reduced over-winter fawn survival and lower adult survival coupled with limited emigration likely explain the decline in mule deer abundance); Sawyer *et al.* 2006 at 6-18, 6-20 (same, and "The weight of the evidence suggests the observed deer decline in the treatment area was due primarily to reduced survival rates associated with [natural gas] development activities and secondarily to limited amounts of emigration"). When reviewing Hall Sawyer's research on mule deer population survival rates in the Mesa relative to the Pinedale Anticline natural gas development and the research finds a 46% decline in mule deer populations, which began after development started in 2000, there is a direct correlation between mule deer deaths and natural gas development. The LaBarge Infill project would be very similar to the Pinedale Anticline project as it is proposing winter drilling and the development will overlap a crucial winter range for mule deer. Elk would see a similar plight in the overlap of their crucial winter range and natural gas development in the LaBarge Infill Project, the Green River Basin and the new Cimarex plant.
	Joy Bannon, Wyoming Wildlife Federation	If the LaBarge Infill project is developed for fluid mineral production, wildlife, wildlife habitats, and hunting participation will be affected. Impacts associated with oil and gas development on big game habitat (including crucial winter range and parturition areas) and migration, as well as on sage grouse populations are well documented in scientific literature. The Executive Order directs federal agencies not only to evaluate and consider impacts to wildlife and habitat, but also to "facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat." Id. § 1. The scoping notice and EOG's proposal is absent of any evidence that the BLM considered the mandates of Executive Order 13443 in deciding to move forward with the number of wells and well pads, as well as to consider winter drilling. The BLM should nonetheless consider the requirements of the order and perform all review necessary to comply with its mandates prior to this project moving forward.
	Joy Bannon, Wyoming Wildlife Federation	Increased human activity is also a concern due to the potential for animals to be harmed through harassment, poaching, or negligent driving. Licensed hunters and anglers were surveyed in four Rocky Mountain states (Wyoming, Montana, New Mexico, and Colorado), which concluded in hunters and anglers naming "increased poaching and loss of access among the top concerns they had regarding the impact of oil and gas extraction on lands where they hunt and fish." (Sportsmen for Responsible Energy Development, Survey Poll, April 2009) We request that every operator and contractor educate their workforce as to the rules and regulations of ethical hunting, hunter safety, and the heavy fines associated with poaching.
	Kent Connelly, Coalition of Local Governments	**Sage Grouse** The Operators have committed to the installation of raptor anti-perch devices on all overhead power lines in sage grouse habitat. Revised Project Description at 8.2. The EIS should also recognize that low profile tanks and anti-perching devices on structures within sage grouse buffers have proven effective in minimizing predation of sage grouse and other wildlife.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Scott Hicks, USFWS	Well Pads – oak mats or prefabricated mats should be used for well pads and roads to minimize habitat alteration, particularly in sagebrush communities. Greater than 350 species of plants and animals, including greater sage-grouse (*Centrocercus urophasianus*), pygmy rabbits (*Brachylagus idahoensis*), and several species of migratory birds depend on the sagebrush ecosystem for some portion of their life history requirements Connelly et al 2004). Activities, such as conversion of sagebrush to agricultural lands, urbanization, resource extraction, and construction of roads, pipelines, power lines, and fences, can negatively impact the sagebrush ecosystem and the species that depends on it. These activities contribute to habitat loss, increased fragmentation, spread of invasive plant species, and alteration of the distribution of predators (Connelly et al 2004)(4). Since 62 percent of the nearly 96,000 km2 of sagebrush in Wyoming is under State or Federal management, the Service recommends that land management agencies analyze proposed actions for their effects to the integrity, connectivity, and quality of the sagebrush ecosystem and encourage project proponents to take measures necessary to avoid and/or minimize these impacts. Efforts taken now to conserve this ecosystem may preclude the need for related endangered species listing in the future. *[footnote]* (4)Connelly, J.W., S.T. Knick, M.A. Schroeder, and S.J. Stiver. 2004. Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming.
	Scott Hicks, USFWS	Reserve pits containing oil or oil-based products (i.e. oil-based drilling fluids) can entrap and kill migratory birds and other wildlife. Well stimulation chemicals, such as corrosion inhibitors and surfactants, disposed into reserve pits, pose additional risk to migratory birds. Surfactants allow water to penetrate through feathers and onto skin thus subjecting the bird to hypothermia (Stephenson 1997)(3). Furthermore, loss of water repellency in feathers due to reductions in surface tension will cause the bird to become water logged and lead to drowning. Storage of hydraulic fracturing (frac) fluids in reserve pits can present a risk to migratory birds if the frac fluids contain hydrocarbons or surfactants. The longer the reserve pit is left on site after well completion, the greater the probability that aquatic birds will land on the pit. If the reserve pit contains oil, condensates, or other hydrocarbons or surfactants, the risk of bird mortality is very high. The Serve recommends closed-loop drilling due to the risk posed by reserve pits to migratory birds and other wildlife. If reserve pits must be used, the Service recommends removal of all fluids from the reserve pits immediately following well completion and removal and proper disposal of the remaining solids. *[footnote]* (3)Stephenson, R. 1997. Effects of oil and other surface-active organic pollutants on aquatic birds. Environmental Conservation 24(2):121-129.
	Scott Hicks, USFWS	Reserve pits - Closed loop drilling should be used in all drilling operations as reserve pits can contaminate soil, groundwater, and surface water with metals and hydrocarbons if not managed and closed properly. As reserve pit fluids evaporate, water-soluble metals, salts, and other chemicals become concentrated. Precipitation, changes in shallow groundwater levels, and flooding can mobilize these contaminants into adjacent soils and groundwater. Liners most often do not adequately seal the drilling wastes, especially if they torn. Beal *et al*. (1987)(1) documented the migration of leachate 400 feet from reserve pits buried in 1959 in north-central North Dakota and groundwater contamination 50 feet below the buried reserve pits. Caustic soda, rig wash, diesel fuel, waste oil from machinery, and other refuse could be placed in reserve pits either deliberately or inadvertently. Reis (1996)(2) states that. "improper reserve pit management practices have created sources of benzene, lead, arsenic, and fluoride, even when these contaminants were not detected or were not present in the drilling mud system." *[footnote]* (1)Beal, W.A., E.C. Murphy and A.E. Kehew. 1987. Migration of contaminants from buried oil-and-gas drilling fluids within glacial sediments of north-central North Dakota. Report of Investigation No. 86. North Dakota Geological Survey. Grand Forks, ND. 43 pp. (2)Reis, J.C. 1996. Environmental control in petroleum engineering. Gulf Publishing Co., Houston, Texas. p. 35.
	Scott Hicks, USFWS	Amount of formation water produced and its disposal – The scoping notice states that produced water from gas wells would be stored in a tank on the well pad and transported by truck to an approved disposal site. The Bureau should assess the amount of formation water produced along the natural gas or crude oil and determine if the existing commercial oilfield wastewater disposal facility (COWDF) located in the project area will be able to accommodate the additional produced water, the bureau should assess the impacts of the expansion of existing COWDFs or the construction and operation of a new COWDF for produced water disposal. COWDFs using large evaporation ponds for wastewater disposal can pose a risk to migratory birds if the ponds contain oil, sheens, other hydrocarbons, surfactants, or other well stimulation chemicals.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Scott Hicks, USFWS	Production Skim Pits – earthern pits used to separate oil from produced water should be kept free of oil or sheens to prevent the mortality of migratory birds and other wildlife. If the pits cannot be kept free of oil, effective and proven wildlife deterrents or exclusionary devices (i.e., netting) should be used to keep migratory birds and other wildlife from accessing the pits.
	Scott Hicks, USFWS	We are providing these recommendations related to the protection of migratory birds in accordance with the Migratory Bird Treaty Act (MBTA), 16 U.S.C. 703 and the Bald and Golden Eagle protection Act (BGEPA), 16 U.S.C. 668. Other fish and wildlife resources are considered under the Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661 et seq., and the Fish and Wildlife Act of 1956, as amended, 16 U.S.C. 742a-742j.
	Scott Hicks, USFWS	Well Cellars – all well cellars should be covered with wildlife exclosure covers to prevent entrapment of small animals, such as reptiles, amphibians, and small mammals.
	Stephanie Kessler, The Wilderness Society	It is not clear in the scoping document how many wells will be on new pads (only percentage of wells are mentioned per vertical and horizontal, but the numbers in those categories are not stated), although 454 new pads are identified. This seems a very high number of new pads for only 604 new wells by EOG, indicating that very little directional drilling with multiple wells per pad will occur. Also, this seems to add a great deal of new pads to an area with hundreds of existing pads. The BLM should look at an alternative that represents the least damaging footprint of further environmental damage, and build this alternative from the scenario of requiring new wells to be sited on current pads, with the use of more directional drilling and multiple wells per pad, and the near exclusive use of the current road system. Concentrated drilling in this fashion, such as in play in the Anticline - is touted as the best format for wildlife protection and limiting habitat footprint. Therefore, the BLM should require this here as well.
	Stephanie Kessler, The Wilderness Society	We are very concerned with habitat loss and fragmentation and other impacts to big game, sensitive species and of course, sage-grouse in the area. The BLM's analysis needs to take a comprehensive look at the impact of this project in combination with other major developments in the area, particularly with the nearby Cimerex proposal and also the Jonah and Anticline fields. Mule deer and elk are of particular concern. The loss of habitat across the region, and displacement are affecting not only herd size, but also age make-up of the herds. The BLM needs to conduct an analysis of how this development affects the local outfitter and tourism-based businesses that depend upon healthy and productive big-game herds, and also older-aged animals for trophy deer and elk hunts.
	Stephanie Kessler, The Wilderness Society	Regarding the proposal for year round drilling, especially as a means for limiting impacts to wildlife - we are skeptical that this is based on sound reasoning for this area. The drilling plan as described for this project is not similar to the Anticline. There is no concurrent proposal for phased, spatial and temporal development which supposedly "gets in and gets out" so as to make winter drilling a limited impact in one area, leaving other areas as refuge for the animals. BLM should reject this proposal and require strict adherence to winter stipulations for big game and other wildlife.
	Walt Gasson, Wyoming Wildlife Federation	Sensitive species such as the Greater sage-grouse are also part of the Pinedale RMP management objectives to –maintain sufficient, undisturbed, or minimally disturbed sensitive species habitats to ensure persistent, well-distributed, self-sustaining, and productive populations of sensitive species within the planning area" (page 2-49). As noted in our comments dated 9.9.09, the proposed project area includes occupied Greater sage-grouse leks and wintering areas. The proposed 838 wells on 463 well pads all within a 218,000 acre piece of land will not permit maintaining a viable population of this sensitive species. The impact of adding 52.6 miles of new roads and an average of seven water hauling truck trips per day will further impact grouse.
	Walt Gasson, Wyoming Wildlife Federation	Another management goal within the Pinedale RMP is to —maintain functioning big game habitats and migration corridors that allow free movement and use of habitats" (page 2-45). The objective is to —maintain sufficient undisturbed or minimally disturbed habitats to maintain persistent, well-distributed, self sustaining, and productive populations of all native and desirable non-native fish …. and wildlife species within the planning area" (page 2-45). A third objective is to —maintain and enhance big game habitats to support big game populations at Wyoming Game and Fish Department (WGFD) planning objective levels" (page 2-47). All of these goals and objectives will be compromised by the Bureau of Land Management if this infill project is allowed. For example, as noted in our previous comments on this proposed project, the Wyoming Range mule deer herd is currently more than 35% below the WGFD target population amount. We hardly think the infill project will result in increased deer numbers.

Category	Commenter	Comment Text
Wildlife Habitat/Species		
	Walt Gasson, Wyoming Wildlife Federation	Our wildlife and fisheries concerns are the same as noted in our 9.9.09 comments. We would, however, like to emphasize that the proposed project area is of critical importance to the Wyoming Range mule deer herd and the Piney elk herd as crucial winter range. Therefore, no winter drilling should be allowed. These ungulates will suffer population declines as we have seen in the Pinedale Anticline or could experience even more severe declines due to the cumulative impact not only from the surrounding Pinedale Anticline and Jonah fields, but also from the Cimarex plant. This is a serious matter to consider, especially when it directly violates the intent of the Pinedale Resource Management Plan (RMP) goal to “maintain or enhance aquatic and wildlife habitat” (page 2-45)