

Hiawatha Regional Energy Development Project Environmental Impact Statement

**Rock Springs Field Office, Wyoming
Little Snake Field Office, Colorado**

Scoping Report and Summary of Public Scoping Comments

November 2006



MISSION STATEMENT

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

Scoping Report and Summary of Public Scoping Comments

**Hiawatha Regional Energy Development Project
Environmental Impact Statement**

Prepared for:

Bureau of Land Management
Rock Springs Field Office
280 Highway 191 North
Rock Springs, Wyoming 82901

and

Bureau of Land Management
Little Snake Field Office
455 Emerson Street
Craig, Colorado 81625

Prepared by:

SWCA Environmental Consultants
295 Interlocken Boulevard, Suite 300
Broomfield, Colorado 80021
Phone: 303-487-1183
Fax: 303-487-1245
www.swca.com

January 2007

EXECUTIVE SUMMARY

This report documents the public scoping process for the Hiawatha Regional Energy Development Project Environmental Impact Statement (EIS) being prepared by the Bureau of Land Management (BLM) Rock Springs Field Office (RSFO) and Little Snake Field Office (LSFO). The scoping period began on September 6, 2006, with publication of a Notice of Intent in the Federal Register, and ended on October 20, 2006. This Scoping Report includes a description of the public scoping process; a description of the two public scoping meetings; a summary of the comments submitted by the public; and an overview of the issues identified through all scoping comments.

The purpose of “scoping” is to identify issues important to the project EIS. These issues will guide development of alternatives that will be evaluated in the EIS. The scoping process also provides an opportunity to educate the general public about the project and for the BLM to gauge the concerns of those who have a stake in the resources of the Project Area.

Scoping meetings were held in Craig, Colorado, on September 27 and in Rock Springs, Wyoming on September 28, 2006. Meetings were held from 4:00 p.m. to 7:00 p.m. at each location and included informational presentations of the proposed project and the National Environmental Policy Act (NEPA) process. BLM resource specialists and representatives from Questar (the Operator) were available to answer questions from the public. A total of 31 individuals from the public registered at the scoping meetings. The BLM accepted scoping comments during scoping meetings, and comments were also accepted via letter, fax, and electronic mail during the scoping period.

During the official scoping period, the BLM received approximately 476 comments from 35 respondents. For organization and analysis purposes, comments were categorized into the following 17 topic areas:

- ACECs/Citizens Proposed Wilderness
- Air Quality
- BLM General Management and Policy
- BMPs/Reclamation/Mitigation
- Cumulative Impacts
- Cultural and Paleontological Resources
- Development Practices
- Health and Human Safety
- Policy/NEPA
- Ranching and Grazing
- Socioeconomics
- Soils
- Transportation
- Vegetation/Noxious Weeds
- Visual and Noise
- Water
- Wildlife

The Wildlife category received the most comments for a specific topic (23.1%). Other categories that received several comments include: Development Practices (10.7%), Policy/NEPA (9.9%), Cultural and Paleontological Resources (8.0%), Socioeconomics (6.7%), and Air Quality (6.5%).

TABLE OF CONTENTS

	<u>Page</u>
Executive Summary	ES-1
Introduction	1
Scoping Process	1
Public Scoping Meetings	2
Informal Meeting Comments	2
Written Scoping Comments	3
Method of Submittal	3
Number and Type of Comments Received	3
Comment Summaries	5
Areas of Critical Environmental Concern and Citizen’s Proposed Wilderness.....	5
Air Quality	5
BLM General Management and Policy.....	6
Best Management Practices, Reclamation, and Mitigation	6
Cultural and Paleontological Resources.....	7
Cumulative Impacts	7
Development Practices.....	8
Health and Human Safety	9
Policy and NEPA	9
Ranching and Grazing.....	9
Socioeconomics	9
Soils.....	10
Transportation	10
Vegetation and Noxious Weeds	10
Visual and Noise	11
Water	11
Wildlife	11

LIST OF TABLES

<u>Table</u>	<u>Page</u>
Table 1. Comment Submittal Methods	3
Table 2. Comment Category Enumeration.....	4

LIST OF APPENDICES

Appendix

- A Notice of Intent
- B Public Scoping Notice and Comment Form
- C Public Meeting Sign-in Sheet
- D Substantive Scoping Comments

LIST OF ACRONYMS

ACEC	Area of Critical Environmental Concern
AUMs	animal unit months
BLM	Bureau of Land Management
BMPs	Best Management Practices
EIS	Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
LSFO	Little Snake Field Office (BLM)
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
PSD	prevention of significant deterioration
ROD	Record of Decision
RMP	Resource Management Plan
RSFO	Rock Springs Field Office (BLM)
USGS	U.S. Geological Survey

INTRODUCTION

The Questar Exploration & Production Company and Wexpro Company (Operators) have proposed to drill exploratory and development wells in their leased acreage within the Hiawatha and Canyon Creek gas field (Project Area) located in Sweetwater County, Wyoming, and Moffat County, Colorado. The oil and gas leases covering 97% of these lands are issued by the Bureau of Land Management (BLM), the State of Wyoming, the State of Colorado, and private landowners. The BLM Rock Springs Field Office (RSFO) in Wyoming and the Little Snake Field Office (LSFO) in Colorado manage the BLM surface estate and federal mineral estate within the Project Area. Wells currently exist in the Project Area, and many of the oil and gas leases date back to the 1920s. For the Hiawatha Regional Energy Development Project (Proposed Action), the Operators propose to drill as many as 4,208 new wells.

The Project Area contains approximately 157,361 acres of mixed federal, state, and private lands in an area south of Rock Springs, Wyoming, and northwest of Craig, Colorado. The Project Area is generally located within Townships 11 through 14 North, Ranges 99 through 102 West, 6th P.M.

In compliance with the National Environmental Policy Act (NEPA), the BLM RSFO and LSFO initiated a scoping process to determine issues related to the preparation of the EIS for the proposed project. This report describes the scoping process, public comment retrieval and analysis methods, and a summary of issues brought forward during scoping that are categorized by resource area.

SCOPING PROCESS

Scoping is the process required by NEPA in the early stages of developing an EIS to determine the range and significance of issues related to the Proposed Action (40 CFR 1501.7). This process helps identify issues important to the management of the area, as well as issues to be examined in the planning process, which allows for an accurate and timely environmental analysis. The scoping process is designed to encourage public participation and to solicit public input. Although only one of the many steps in the planning process, scoping is essential to ensuring that all issues are brought to the table. Rationale will be provided in the EIS for each issue included. Alternatives that incorporate the issues identified during the scoping process will then be developed and analyzed, and the Draft EIS will be published and made available for public review.

The scoping process formally began on September 6, 2006, with the publication of the Notice of Intent in the Federal Register, which documented the BLM's intent to prepare an EIS (Appendix A). Throughout the scoping period, interested individuals and organizations; affected federal, state, and local agencies; and affected Native American Tribes were invited to submit comments to the BLM. Although the official scoping period ended on October 20, 2006, the BLM will consider issues brought forward at any time during the planning process. However, only the comments submitted during the scoping period are summarized in this report.

PUBLIC SCOPING MEETINGS

Public scoping meetings provide an opportunity for interested parties to submit scoping comments and are a part of the early and open scoping process required by NEPA (40 CFR 1501.7). These meetings are especially important when there is “substantial environmental controversy concerning the proposed action or substantial interest in holding the [meeting]” (40 CFR 1506.6c1).

The Public Scoping Notice (Appendix B) announced two public scoping meetings. Public notice of the scoping meetings was published in the *Rock Springs Rocket-Miner* and *Craig Daily Press* newspapers.

A press release was sent to all the above newspapers, as well as to local radio stations for airing of public service announcements. The public open house scoping meetings were held in Craig, Colorado, on September 27, 2006, and in Rock Springs, Wyoming, on September 28, 2006. Meetings were held from 4:00 p.m. to 7:00 p.m. at each location and included informative presentations of the project and the NEPA process. BLM resource specialists and representatives from the Operators were available to answer questions from the public. Registered attendance was 18 individuals at the Craig meeting and 13 individuals at the Rock Springs meeting, totaling 31 attendees. BLM and industry representatives attending the meetings are not included in this total.

Attendance at each public scoping meeting was recorded using a sign-in sheet at the registration station (Appendix C). A number of handouts were made available to the public, including the scoping notice, project information, and comment forms.

Comments were solicited in a manner that provided an opportunity for everyone attending the public meetings to offer input. Comment forms were distributed to attendees so that individual comments could be written and handed to a BLM representative or mailed to the RSFO. Three formal “written” comments were received during the scoping meetings.

INFORMAL MEETING COMMENTS

While each public scoping meeting raised unique issues and concerns, a number of common elements materialized. Informal comments addressed to BLM staff during conversations after the informative presentation were not formally recorded, but noted in general.

Some of the issues raised during informal conversations with BLM staff included:

- Decreasing the proposed 6-acre per well footprint
- Feasibility of directional drilling to reduce surface disturbance
- Minimizing impacts to visual resources and Citizen’s Proposed Wilderness areas
- Effects of market and economic considerations on BLM management decisions
- Creation of a reclamation plan and having adequate bonds for reclamation
- Forage loss and impacts on grazing permits

- Reconciling this EIS with the ongoing Little Snake Resource Management Plan (RMP) revision process
- Impacts to sage-grouse that move from Cold Spring Mountain and Pine Mountain into the Project Area
- Location of injection wells and ponds
- Surface and groundwater quality and the poor water quality in Canyon Creek to the south

WRITTEN SCOPING COMMENTS

In addition to receiving comments during the public scoping meetings, the RSFO also received comments through the mail, fax, and e-mail. Written comments summarized in this report include those received during the scoping period (September 6 to October 20, 2006), as well as comments that were received shortly after the deadline, yet postmarked by October 20, to compensate for mail delay.

METHOD OF SUBMITTAL

Written scoping comments received via mail, fax, e-mail, or during scoping meetings resulted in a total of 35 responses (Table 1). A response is defined as one letter, e-mail, or comment form. Responses were received from 11 government agencies (local, state, and federal), three industry groups, seven environmental organizations, one local landowner group, and 13 individuals. Because some responses had more than one comment, the total number of comments received is greater than the number of respondents, or individuals who submitted comments. For example, a person submitting a letter containing a comment on wildlife and a comment on grazing was calculated as one response and two comments.

Table 1. Comment Submittal Methods

	Responses Received
Mail	21
E-Mail	10
Scoping Meetings	3
	1
	35

NUMBER AND TYPE OF COMMENTS RECEIVED

Comments received during scoping were combined into one master database from which reports could be generated. Each response was read in its entirety, and all distinct comments were categorized for enumeration and analysis. Each comment was assigned an identification number that corresponded with the appropriate respondent information and organized by

category. Comments were cataloged using standard database and spreadsheet software, then analyzed collectively.

Comments were organized into 17 categories for analysis (Table 2). Individual comments were categorized by primary topic, regardless of the position of the comment towards the topic. Several comments addressed more than one comment category, or topic; these comments were categorized by the driving topic unless the associated topics were of equal importance to the issue being presented, in which case the comment was placed under both comment categories. For example, a comment concerning the visual and auditory impacts on historical trail use presents visual and noise concerns; however, the driving topic is preserving cultural resources.

Table 2 indicates the relative interest of respondents who submitted written comments slanted towards various broad topics. This enumeration is position-neutral and is not intended to show bias toward any issue. All issues will be addressed equally in the EIS. The responses contained 476 substantive comments (Appendix D). No non-substantive submittals were received.

Table 2. Comment Category Enumeration

Comment Category	Number Received	Percentage
ACECs/Citizens Proposed Wilderness	12	2.5%
Air Quality	31	6.5%
BLM General Management and Policy	18	3.8%
BMPs/Reclamation/Mitigation	30	6.3%
Cultural and Paleontological Resources	38	8.0%
Cumulative Impacts	15	3.2%
Development Practices	51	10.7%
Health and Human Safety	2	0.4%
Policy/NEPA	47	9.9%
Ranching and Grazing	21	4.4%
Socioeconomics	32	6.7%
Soils	9	1.9%
Transportation	19	4.0%
Vegetation/Weeds	13	2.7%
Visual and Noise	7	1.5%
Water	21	4.4%
Wildlife	110	23.1%
	476	100.0%

COMMENT SUMMARIES

The following sub-sections summarize the comments received during scoping by topic. This summary is intended to equally reflect all comments received during the scoping phase and does not attempt to assign weight or value to any input. This document is intended to assist the BLM in developing the scope of analysis to be conducted in the EIS on the basis of public input. Therefore, specific comments and context are not provided here, only ideas represented in those comments that can be applied directly to preparation of the EIS. For example, although some respondents provided their views on the value (negative or positive) of oil and gas development, only the issue areas they raised in conjunction with their views are presented in this scoping summary report. All comments, organized by topic, are found in Appendix D. Copies of the individual responses received during the scoping period are available for review at the RSFO.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN AND CITIZEN'S PROPOSED WILDERNESS

Most comments expressed concern for visual and other impacts within the Kinney Rim Citizen's Proposed Wilderness in the Red Desert. Comments focused on protection of roadless and wild areas for the benefit of people seeking primitive recreation opportunities and solitude, as well as for the benefit of wildlife. Respondents suggested adjusting the project boundary to exclude this area to maintain the area as roadless and primitive. Other areas of concern include the nearby Adobe Town Wilderness Study Area, the Irish Canyon Area of Critical Environmental Concern (ACEC), and the views from Lookout Mountain, Diamond Mountain, and Kinney Rim. One respondent suggested that the maps in the EIS not show the Citizen's Proposed Wilderness boundaries since they are not designated wilderness areas.

AIR QUALITY

Most comments directed toward air quality centered on the potential increase in emissions from sources such as drill rigs, compressors, wind erosion, and increased traffic into sites. Common air quality concerns included impacts to Class I and II areas, visibility impacts, fugitive dust, and compliance with national air pollution standards. Acid rain, ozone, and global warming were also issues of concern. Respondents suggested that cumulative impacts from all sources of regional emissions may exceed ambient air quality standards, prevention of significant deterioration (PSD) increments, and significance criteria.

Respondents suggested air modeling that analyzes impacts against set regulatory baselines for the area and that also determines increments that have already been consumed. One respondent noted that the BLM has an obligation to assess compliance with PSD increments and to adopt sufficient mitigation measures. In addition, the respondent felt that the BLM should implement these mitigation measures, and not delegate this responsibility to state agencies. Suggestions for dust control included base compaction prior to laying gravel on roads and use of non-chlorine based chemical dust abatement treatment. Suggestions for reducing emissions included requiring flareless well completions, using Tier 2 compliant technology for drill rigs, and applying Best Available Control Technology to equipment. Full

and adequate air pollution monitoring, to be funded by the Operators if necessary, was also mentioned.

BLM GENERAL MANAGEMENT AND POLICY

Comments in this category generally focused on the BLM's mission to protect multiple uses on public lands. Concerns raised include the need for finding the balance among wildlife habitat, recreation opportunities, cultural resources, resource extraction, and grazing. An implementation and monitoring program that involves the cooperators was suggested for this multi-jurisdictional project. Some respondents did not perceive the proposed density of well pads and associated roads and pipelines as a responsible plan for meeting the BLM's multiple use mission. Respondents felt that oil and gas development is not compatible with most other uses, therefore; the concept of multiple use should be applied to the entire public lands estate, not just to each individual unit. Respondents suggested an adequate review of all land uses and a development model that requires directional drilling, well clustering, phased development, and exclusion of sensitive lands.

Comments regarding BLM policy stressed compliance with the Federal Land Policy and Management Act (FLPMA), the Mineral Leasing Act, County Comprehensive Plans, and other BLM requirements intended to minimize environmental impacts and prevent unnecessary degradation of public lands. One respondent did not believe the Green River RMP would need to be amended and analyzed for this EIS.

BEST MANAGEMENT PRACTICES, RECLAMATION, AND MITIGATION

Many of these comments focused around use of Best Management Practices (BMPs) and mitigation measures to reduce overall surface disturbance and unnecessary degradation. Adoption of a comprehensive management plan was suggested. Additional comments related to BMPs, reclamation, and mitigation include:

- Locating utilities and pipelines in existing rights-of-way
- Remote monitoring of wells
- Low profile structures and minimal lighting
- Minimization of well pad footprint
- Interim reclamation
- Noise control mufflers
- Use of portable mat systems
- BMPs for wildlife exclusion/escape methods from reserve pits

Respondents stressed the need for analysis of a range of mitigation measures and adoption of a comprehensive reclamation plan that includes monitoring. Several comments expressed concern about the rate of reclamation success in the Project Area, as some past reclamation efforts in the area have failed. Suggestions also included analyzing the potential for seeding failure and considering other options, including off-site mitigation. Suggestions for timely reclamation included beginning seeding as soon as possible and not releasing bonds until successful reclamation has been demonstrated. One comment suggested placing the money for reclamation costs into an interest-bearing U.S. Treasury account upfront to ensure that

adequate bond money is available for reclamation at the end of the life-of-project, including inflation costs.

Respondents commented that reclamation should include areas of woody shrub species used by big game and sage-grouse. Respondents favor use of native seed mixes that include sagebrush and bunch grasses, and the planting of sagebrush container stock to ensure timely reclamation. Use of stockpiled topsoil and control of noxious weeds were also recommended.

Several respondents want to see monitoring methods and enforcement outlined in the record of decision (ROD) for the EIS or in a separate monitoring plan. Suggestions for ensuring proper implementation of mitigation measures include: identification of the entities responsible and accountable, consistent inspections, documentation, and record keeping.

CULTURAL AND PALEONTOLOGICAL RESOURCES

Comments primarily expressed concern for preserving unique historic and cultural resources, including historic properties, historic trails, historic freight roads, and petroglyphs. Respondents noted the importance of cultural and historic resources as recreational, educational, and tourism opportunities that should be protected for future generations. The respondents emphasized the need for compliance with Section 106 of the NHPA and consultation with state historical societies and Native American tribes early in the NEPA process. Since most of the Project Area has not been surveyed, baseline information on historical, cultural, and archaeological resources should be gathered for proper NEPA analysis. A complete survey of the Project Area by archaeologists for petroglyphs and Native American respected sites was also suggested. A BLM monitoring plan for discovered cultural resources should be developed, and Operators should not be relied on to monitor themselves. Respondents suggested that mitigation measures and cumulative impacts identified under Section 106 studies be incorporated into the EIS. They also suggested a 2-mile buffer along the Cherokee Trail to protect the visual and auditory enjoyment of the trail, and a ¼-mile buffer around petroglyph panels to prevent vandalism.

Paleontology comments focused on gathering baseline paleontological information for assessment. Respondents suggested that important fossil-bearing strata should be mapped and presented in the EIS and analyzed for potential impacts. Paleontologists should conduct full-scale paleontological surveys along rights-of-way and at well locations.

CUMULATIVE IMPACTS

Respondents noted the NEPA requirement to consider all connected, cumulative, and similar actions. Other drilling and seismic projects identified in the Washakie Basin include the Continental Divide-Creston, Atlantic Rim, Desolation Flats, South Baggs, Monell, Jack Morrow Hills, Seminoe Road, and Cherokee West projects. In addition to oil and gas development, cumulative impacts from logging, mining, grazing, and off-road vehicle use should be analyzed. Respondents expressed concern that the manner in which BLM is revising area RMPs avoids meaningful comprehensive environmental analysis of oil and gas impacts and does not consider reasonable alternatives or assess how development in southwestern Wyoming should occur. Respondents noted that the Hiawatha EIS should fully

analyze cumulative impacts on sagebrush avian communities, big game movement, sage-grouse habitat, habitat fragmentation, listed species, surface water, wetlands, air quality, and grazing.

Respondents suggested using airshed and watershed boundaries rather than political boundaries for analysis. They also noted that BLM should not avoid complete cumulative impact analysis by stating that mitigation measures will reduce impacts to a level of insignificance; any statement of mitigation measures reducing significant impacts should be supported with proof gathered from past mitigation projects in the Red Desert.

DEVELOPMENT PRACTICES

Comments in this category commonly expressed the need to reduce the density and footprint of wells and roads and any unnecessary surface disturbance. Respondents were concerned that the amount of surface disturbance will be similar to other gas developments in the area (e.g., Jonah Field). Several respondents suggested using directional drilling, particularly in areas around sensitive wildlife and habitat. One respondent noted that Shell Oil Company is drilling up to 32 wells per pad on the Pinedale Anticline and that this should be an alternative. Another respondent pointed out that the extra cost (cited as a 15-20% increase) of directional drilling could avoid reclamation and wildlife mitigation costs, as well as economic impacts on hunting and other recreation; an economic analysis of directional drilling should be completed. Respondents stated that the BLM should require directional drilling as a development practice if necessary to meet its multiple use directive. Suggested well density ranged from one to four wells per square mile. Respondents also suggested using the highest technology to reduce pad size, using S-turn directional technology, using existing infrastructure, and well clustering to reduce surface disturbance and fragmentation. A few respondents encouraged above-ground pipelines to reduce the visible lines of changed vegetation, which last for decades, resulting from buried lines.

Comments stated that pitless drilling or closed-loop drilling would reduce the footprint of the pads by alleviating the need for reserve pits; this would also reduce pit-related wildlife fatalities, decrease water use, and reduce truck traffic. Respondents also discouraged the use of misters to evaporate produced water in reserve pits, as this could increase toxic salts and heavy metals in the nearby soils, which would kill the vegetation and eventually run into nearby surface waters.

One respondent suggested that EIS preparation should be delayed until it is known if shale is basin-centered or in anticline traps, since this will determine the true scope of the project. Several respondents suggested a phased development alternative that limits the amount of equipment in use and surface disturbance at any one time, to protect displaced wildlife and to support the sustained yield of natural resources required by FLPMA. Evaluation of each development phase would allow for site-specific review and better planning for the next phases, which follows NEPA guidelines. A few of these respondents proposed the incorporation of the Moffat County 5% maximum surface disturbance standard and allowing year-round drilling.

HEALTH AND HUMAN SAFETY

Public comments for this category focused on the health and safety of people working in the field and nearby residents. One respondent suggested building a public restroom facility for the long-term needs of maintenance workers. Another comment discussed evaluation of environmental justice aspects of the project.

POLICY AND NEPA

Comments categorized as policy and NEPA include those addressing the range of alternatives and the alternatives development process; acquisition of up-to-date sound data and matching data across state lines; BLM instruction memoranda, laws, regulations, and court findings; general level of impact assessment; reasonably foreseeable development scenarios; the potential for an amendment to the Green River RMP; the purpose and need for the Proposed Action; and the public involvement process.

RANCHING AND GRAZING

Comments directed toward grazing focused on the loss of animal unit months (AUMs) and impacts on local grazing permittees and private landowners. Concerns included the effects of increased road traffic on livestock; increased noxious weeds and decreased palatable vegetation; effect on gates, fences, and cattle guards; and socioeconomic impacts on landowners and grazing permittees. Respondents suggested regular meetings among Operators, BLM, and grazing permittees to discuss any problems, corrective actions, mitigation options, and planning for the next grazing season. Some prefer a staged or phased development at a 5% maximum surface disturbance level to reduce disruptions to livestock operations. A plan to research and monitor the effects of this project on livestock in the grazing area was suggested. Respondents encouraged the study and documentation of domestic animals to the same degree as wildlife during the NEPA process, a discussion of the positive effects of grazing on the environment, and an evaluation of how the project limits these positive effects.

SOCIOECONOMICS

Comments directed toward socioeconomics included the economic effect to local economies, including towns, counties, and states. Housing, schools, waste, wastewater, and traffic were specifically mentioned. Comments highlighted the economic and social impacts on landowners and grazing permittees, and jobs and tax revenue from oil and gas activities for public services. It was recommended that BLM contact the Chamber of Commerce and Economic Development Associations of local communities for further information.

Some comments mention analysis of the economic effects of the proposal on all Americans, and suggest inclusion of information on the U.S. economy and energy demand. Another theme is the economic impacts of oil and gas drilling on tourism and recreation, as well as non-market costs and benefits, such as science, biodiversity, and quality of life. Recommendations for the level and methods of socioeconomic analysis were made, including use of USGS scientific data and current market costs and benefits.

SOILS

Comments related to soils focused on concerns about construction in areas with sensitive soils that are highly susceptible to erosion and degradation, including badland soil types. Comments also expressed concern for the length of time necessary for revegetation and reclamation in the soil types found in the Project Area. Respondents suggested mapping fragile soil types and mitigation measures to avoid hydric, sandy, and high-clay content soils, as well as badlands and steep slopes. Comments stated that impacts to soils must be analyzed once specific location of wells, roads, and pipelines are known to comply with NEPA, and that the EIS should discuss reclamation and mitigation of biological soil crusts. Respondents also suggested retention of topsoil for reclamation during all surface-disturbing activities.

TRANSPORTATION

Comments in this category expressed concerns about increased road density and traffic impacts the need for comprehensive transportation planning, maintenance of access roads to grazing and recreation, and maintenance of cattle guards and bridges. Agency comments referred to requirements for obtaining proper Wyoming Department of Transportation and County access permits. Respondents noted that culverts should be large enough to handle flood events and allow for fish migration. Erosion, sedimentation, and appropriate setbacks of roads from streams were cited as concerns. Numerous comments focused on the effects of increased traffic and speeding related to wildlife mortality and impeding migration routes. Enforcement of speed limits and road improvements were noted as mitigating measures for these concerns and for public safety. A few respondents would like to see the two counties coordinate transportation, and show all county and state roads on maps in the EIS.

VEGETATION AND NOXIOUS WEEDS

Common concerns in this category included removal of native vegetation, impacts to sensitive plant species, and increased noxious weeds. Specifically, respondents were concerned about impacts to Gibben's beardtongue, Crandall's rockcress, and desert glandular phacelia. Respondents suggested the EIS include a spatial analysis of potential habitat for sensitive plant species. There was also concern that salt sageflats would be impacted in order to avoid impacting sagebrush and that this could have adverse environmental impacts.

Respondents also suggested using "brush-hogging" as a lower-impact method of clearing rights-of-ways. Revegetation and reclamation should use performance-based standards and should emphasize the use of native plant species and native tree replacement. Some believe the 5% maximum surface disturbance proposal, adopted by Moffat County as part of the Sagebrush Initiative, should be applied to the project.

Comments also related to prevention of noxious weed invasions in the Project Area, particularly the spread of halogeton, and suggested stronger prevention measures than those currently in place. Suggested measures included using weed-free gravel and hay, power washing vehicles and equipment, reseeding disturbed areas as soon as possible, and coordination with the Northwest Colorado Weed Partnership.

VISUAL AND NOISE

Comments related to visual and noise impacts focused on how visual resource impacts and increased noise levels may disrupt visitor enjoyment of natural areas and scenic resources, such as Kinney Rim. Respondents suggest the assessment of visual impacts and mitigation and reclamation to minimize these impacts. Respondents also suggest analysis of light pollution and wasted energy from lighting systems. Mufflers were recommended to reduce noise impacts.

WATER

Comments related to water resources focused on potential effects to surface and ground water from releases of water used in construction or production and from increased surface run-off. There was concern that this water would contain elements from the soil or other pollutants. Additional water comments were related to stormwater management, hazardous spills, sedimentation, potentially toxic produced water, reserve pits and pitless drilling techniques, and impacts from magnesium chloride used for dust abatement. It was suggested that produced water be treated and used for dust abatement and reclamation.

Comments directed toward groundwater related to cross-contamination of aquifers, which could impact water wells and springs. Respondents recommended testing water wells routinely to detect contamination. Comments related to surface water included the following recommendations: requiring a 500-foot buffer from surface water and riparian areas; application of BMPs to reduce erosion; mapping of floodplains and setbacks from floodplains; wetland mitigation planning; delineation of seeps, springs, and wetlands; stabilization of stream banks using bioengineering techniques; and use of directional drilling techniques under waterbody crossings and floodplains.

WILDLIFE

A variety of wildlife concerns were raised during scoping. Primary issues included the protection of crucial ranges, winter relief habitat, and breeding/spawning/nesting and other reproduction areas. Species of concern mentioned were sage-grouse, mule deer, pronghorn, elk, white-tailed prairie dog, black-footed ferret, raptors, Colorado River fishes, and Great Basin spadefoot toad.

Sensitive habitats of concern included sagebrush steppes and fish-supporting waters. The general public had concerns about the effect of increased human activity on resident wildlife. Road-related issues included habitat displacement and fragmentation, more traffic/public access into habitats, and construction of roads on slopes causing more erosion and sedimentation. Produced water facilities and evaporation ponds were mentioned as responsible for waterfowl fatality. An issue was raised regarding requiring water depletion fees for potential impacts to Colorado River fishes from the entire project as a whole, not on a well-by-well basis. In addition, the following were included in wildlife-related comments: impact of power lines on predation, effects of development on periodic migration of pronghorn, timing stipulations for big game winter range, and the need for industry funding of wildlife surveys.

Specific mitigating measures mentioned in comments included maintenance of low road densities; use of appropriate seed mixes for reclamation, including sagebrush; expanded buffers around raptor nests and sage-grouse leks based on scientific literature; a wildlife monitoring plan; offsite mitigation, such as forage improvement projects at a rate of 3 acres of mitigation to each acre of disturbance; compensatory funds for habitat improvement projects; and phased development. Some suggest using a 5% maximum surface disturbance threshold in place of big game and sage-grouse timing limitation stipulations.

Numerous wildlife studies were enclosed and referred to in respondents' submittals, including research on mule deer, sage-grouse, and the Wyoming Game and Fish Department's "Minimum Recommendations for Development of Oil and Gas Resources Within Crucial and Important Wildlife Habitats on BLM Lands."

APPENDIX A
NOTICE OF INTENT

ACTION: Notice of invitation for coal exploration license application, Jacobs Ranch Coal Company, WYW172929, Wyoming; correction.

SUMMARY: The Bureau of Land Management published in the **Federal Register** of August 18, 2006, (71 FR 47826) a notice inviting all interested parties to participate with Jacobs Ranch Coal Company on a *pro rata* cost sharing basis in its program for the exploration of coal deposits owned by the United States of America. Inadvertently, the following lands included in the exploration license application were omitted from the notice.

T. 44 N., R. 70 W., 6th P.M. Wyoming
Sect 22: Lots 1–3, 5–10, 12–15.

SUPPLEMENTARY INFORMATION: Any party electing to participate in this exploration program must send written notice to both the Bureau of Land Management and Jacobs Ranch Coal Company no later than thirty days after publication of this invitation in the **Federal Register**.

August 21, 2006.

Alan Rabinoff,

Deputy State Director, Minerals and Lands.
[FR Doc. 06–7430 Filed 9–5–06; 8:45 am]

BILLING CODE 4310–22–M

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[WY–040–06–1310–DB, CO–100–06–1310–DB]

Notice of Intent (NOI) To Prepare an Environmental Impact Statement and Provide Notice of Public Meetings, Hiawatha Regional Energy Development Project, Sweetwater County, WY, and Moffat County, CO, and Notice of the Potential for an Amendment to the Green River Resource Management Plan

AGENCY: Bureau of Land Management, Interior.

ACTION: NOI to prepare an Environmental Impact Statement (EIS) and to conduct public scoping for the Hiawatha Regional Energy Development Project, Sweetwater County, Wyoming and Moffat County, Colorado, and notice of potential for an amendment to the Green River Resource Management Plan, Rock Springs Field Office.

SUMMARY: Under the provisions of section 102(2)(C) of the National Environmental Policy Act (NEPA), the BLM announces its intentions to prepare an EIS and to solicit public comments regarding issues and resource

information for the proposed Hiawatha Regional Energy Project, a natural gas development project consisting of conventional natural gas well development in established, producing fields.

DATES: The BLM can best use public input if comments and resource information are submitted within 45 days from publication of this notice. To provide the public with an opportunity to review the proposal and project information, the BLM will host two public meetings; one in Rock Springs, Wyoming, and another in Craig, Colorado. The BLM will notify the public of the date, time, and location of each meeting at least 15 days before the event. The announcement will be made by a news release to the media in Wyoming and Colorado, individual mailing of a scoping notice, and posting on the Web sites listed below.

ADDRESSES: Written comments or resource information can be mailed to the Field Office at: Bureau of Land Management, Rock Springs Field Office, *Attn:* Hiawatha Regional Energy Project, 280 Hwy 191 North, Rock Springs, WY 82901; the public may submit comments electronically at *Hiawatha_EIS_WYMail@BLM.gov*. Project information and documents will be available on the Web at <http://www.blm.gov/eis/wy/hiawatha>.

All comments and submissions will be considered in the environmental analysis process. If you do comment, we will keep you informed of decisions resulting from the analysis. Please note that public comments and information submitted in regard to this project, including names and street addresses of respondents, will be available for review and disclosure at the Field Office. Individual respondents may request confidentiality. If you wish to withhold your name, e-mail, and street address from public review or from disclosure under the Freedom of Information Act, you must state this plainly at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

FOR FURTHER INFORMATION CONTACT: For information regarding the project, please contact Susan Davis, Project Lead, at 307–352–0346.

SUPPLEMENTARY INFORMATION: The Hiawatha Regional Energy Project is generally located in Townships 11 through 14 North, Ranges 99 through

102 West, 6th Principal Meridian, Sweetwater County, Wyoming and Moffat County, Colorado. The project is located south of Rock Springs, Wyoming, and northwest of Craig, Colorado. The project area contains approximately 157,335 acres of mixed Federal, State, and private lands. The BLM Rock Springs Field Office manages public lands in Sweetwater County, Wyoming, and the BLM Little Snake Field Office manages public lands in Moffat County, Colorado. The Rock Springs Field Office will serve as the lead for this project.

Any authorizations and actions proposed for approval in the EIS will be evaluated to determine if they conform to the decisions in the 1997 Green River RMP. Actions that result in a change in the scope of resource uses, terms and conditions, and decisions of the Green River RMP may require amendment of the RMP. If the Bureau of Land Management (BLM) determines that a plan amendment is necessary, preparation of the Hiawatha Regional Energy Development EIS and the analysis necessary for the RMP amendment would occur simultaneously. Based on the information developed during the course of this analysis, the BLM may decide it is necessary to amend the 1997 Green River Resource Management Plan (RMP). The potential for amendment of the Green River RMP does not affect the Little Snake RMP.

The ongoing (2006) Little Snake Field Office land use plan revision (NOI November 18, 2004) contains an updated RFD that provides a reasonable estimate of projected oil and gas exploration and development for the entire Field Office planning area for the next 20 years. This reasonable foreseeable development (RFD) encompasses the project area to be analyzed and incorporates the level of development proposed in the Hiawatha Regional Energy Project EIS. The proposed action will be within the scope of the analysis for the ongoing Little Snake Field Office RMP revision and any land use planning decisions relating to the Hiawatha Project will be addressed as part of the ongoing Little Snake Field Office planning process. Further information of the status of this RMP revision may be obtained from the Little Snake Field Office's Web site at <http://www.co.blm.gov/lra/rmp>.

In March 2006, Questar Exploration & Production Company, Wexpro Company, and other natural gas development companies (hereinafter referred to as ("the Operators")) submitted to the BLM a proposal to expand natural gas exploration and

development operations in existing fields. The purpose of the proposal is to extract and recover natural gas for distribution to consumers. The Operators' proposal consists of development of up to 4,207 wells and associated facilities including but not limited to roads, well pads, pipelines, gas treatment and possible compression resulting in approximately 25,820 acres of short-term disturbance and 9,058 acres of life-of-project disturbance. Wells would be drilled using a combination of vertical and directional drilling techniques. The proposal calls for a 20- to 30-year construction and drilling period with another 30 years for the project operations.

The Hiawatha Regional Energy Development Project is located in an area of existing oil and gas development known as Canyon Creek, Trail, and Kinney Fields (also known as the Vermillion Basin area) in Sweetwater County, Wyoming, and the East and West Hiawatha/Sugarloaf Fields in Moffat County, Colorado. This project would meet the goals and objectives of the Energy Policy Act of 2005 and the President's National Energy Policy.

During the preparation of the EIS, development within the project area may be allowed in Wyoming as approved under the Modified Decision Record for the Vermillion Basin Natural Gas Exploration and Production Project. Other interim development will be subject to interim development guidelines on the Wyoming portion of the project.

The EIS will analyze the environmental consequences of implementing the proposed action and alternatives to the proposed action including the No Action alternative. Other alternatives under consideration include a range of drilling surface densities and pace, mitigation measures, best management practices and phased development.

Agency resource issues and concerns will be identified in the public scoping notice mailed to Federal, State and local governments, interested groups, individuals, and businesses under separate cover.

Dated: June 30, 2006.

Robert A. Bennett,

State Director.

[FR Doc. E6-14670 Filed 9-5-06; 8:45 am]

BILLING CODE 4310-22-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[MT-090-1610-DO-048E]

Notice of Intent To Prepare a Resource Management Plan for the Malta Field Office and Associated Environmental Impact Statement

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of Intent.

SUMMARY: Pursuant to the Federal Land Policy and Management Act (FLPMA) and the National Environmental Policy Act (NEPA) the Bureau of Land Management (BLM), Malta Field Office intends to prepare a Resource Management Plan with an associated Environmental Impact Statement (RMP/EIS). The planning area is located in Blaine, Choteau, Glacier, Hill, Liberty, Phillips, Toole, and Valley Counties, Montana. The public scoping process will identify planning issues and develop planning criteria, including evaluation of the existing RMPs in the context of the needs and interests of the public. This notice initiates the public scoping process.

DATES: To be most helpful you should submit formal scoping comments within 60 days after publication of this Notice. However, collaboration with the public will continue throughout the process. All public meetings will be announced through the local news media, newsletters, and the BLM Web site (<http://www.mt.blm.gov/mafo/rmp>) at least 15 days prior to the event. The minutes and list of attendees for each meeting will be available to the public and open for 30 days to any participant who wishes to clarify the views they expressed.

ADDRESSES: Written comments should be sent to Bureau of Land Management, G. Claire Trent, RMP Project Manager, Malta Field Office, 501 S 2nd St. East, Malta, MT 59538; Fax—406-654-5150. Documents pertinent to this proposal may be examined at the Malta Field Office. Respondents' comments, including their names and street addresses, will be available for public review at the Malta Field Office during regular business hours from 7:45 a.m. to 4:30 p.m., Monday through Friday, except holidays, and may be published as part of the EIS. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning

of your written comments. Such requests will be honored to the extent allowed by law. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be available for public inspection in their entirety.

FOR FURTHER INFORMATION CONTACT: For further information and/or to have your name added to our mailing list, contact G. Claire Trent at (406) 654-5124 or e-mail at: MT_Malta_RMP@blm.gov.

SUPPLEMENTARY INFORMATION: The BLM will work collaboratively with interested parties to identify the management decisions that are best suited to local, regional, and national needs and concerns. Public meetings will be held throughout the plan scoping and preparation period. In order to ensure local community participation and input, public scoping meeting locations will be rotated among the towns of Big Sandy, Billings, Browning, Chester, Chinook, Cut Bank, Fort Benton, Glasgow, Great Falls, Harlem, Helena, Havre, Hays, Malta, Opheim, Rocky Boy, Shelby, Turner, and Whitewater. Early participation is encouraged, and will help determine the future management of public lands administered by the Malta Field Office. In addition to the ongoing public participation process, formal opportunities for public participation will be provided upon publication of the Draft RMP/EIS, the final Proposed Plan, and Record of Decision.

The Bureau of Land Management's Malta Resource Management Plan and Environmental Impact Statement incorporates a planning area administered by three BLM offices: the Glasgow and Havre Field Stations, and the Malta Field Office. These offices were recently combined under the Malta Field Office [Notice of Montana/Dakotas Administrative Boundaries Resulting from the Havre Field Station Realignment and other Organizational Changes, (IM No. MT-2005-041)]. The land area to be covered under the Malta RMP/EIS is approximately two and a half million surface acres (~2,500,000) and three- and a half million subsurface acres (~3,500,000) of public land in the north-central tier of the State of Montana. Currently, land resources are managed under the following decisions: the 1988 West HiLine RMP as amended in 1992, for portions of the planning area administered by the Havre Field Station; and the 1994 Judith, Valley, Phillips (JVP) RMP for the remainder of the planning areas administered by the Malta Field Office and Glasgow Field

APPENDIX B

PUBLIC SCOPING NOTICE AND COMMENT FORM

PUBLIC SCOPING NOTICE

**HIAWATHA REGIONAL ENERGY DEVELOPMENT PROJECT
ENVIRONMENTAL IMPACT STATEMENT**

**DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ROCK SPRINGS FIELD OFFICE WYOMING
and
LITTLE SNAKE FIELD OFFICE COLORADO**

SEPTEMBER 2006



1.0 INTRODUCTION

The Bureau of Land Management (BLM), Rock Springs Field Office (RSFO) and Little Snake Field Office (LSFO) are preparing an environmental impact statement (EIS) for an expanded natural gas development proposal to be known as the Hiawatha Regional Energy Development Project (Hiawatha Project). This project arises from a proposal by Questar Exploration & Production Company, Wexpro Company, and other natural gas development companies to further develop natural gas resources within the existing Canyon Creek, Trail and Kinney natural gas fields (also known as the Vermillion Basin area) in Sweetwater County, Wyoming, and the East and West Hiawatha/Sugarloaf Fields in Moffat County, Colorado. The BLM has determined that an environmental impact statement (EIS) is necessary to process the company's proposal.

In March 2006, the BLM RSFO received from Questar Exploration & Production Company, representing themselves and other lease holders, a proposal to drill and develop up to 4,208 new wells beyond the number of wells that currently exist within the Hiawatha Project area. It is estimated that approximately two-thirds (2,805) of the potential wells could be located within the Wyoming portion of the project area and the remaining one-third (1,403) could be located within the Colorado portion of the project area.

The BLM, State of Wyoming, State of Colorado, and private land owners have issued oil and gas leases covering 97% of these lands. Many of these leases date back to the 1920's, with the Hiawatha discovery well drilled in 1927. Other early wells in the Hiawatha Project area were the Canyon Creek discovery well drilled in 1941 and the Trail discovery well drilled in 1958.

2.0 PURPOSE OF THIS SCOPING NOTICE

The BLM has prepared this scoping notice to:

1. Describe the proposed project;
2. Identify the rules, roles, and obligations of agencies involved;
3. Describe the role of the public in the EIS preparation process;
4. Set forth preliminary issues that we have identified for the project; and
5. Inform the public and agency officials regarding the proposed project.

We hope that you will review this scoping notice document and provide us with your comments on the proposed project.

3.0 PROJECT DESCRIPTION

The Hiawatha Project involves approximately 157,361 acres of mixed federal, state, and private lands in Sweetwater County, Wyoming, and Moffat County, Colorado. Surface ownership or management responsibility is approximately 91% federal (143,159 acres), 2% private (3,058 acres), 1.4% State of Colorado (2,151 acres), and 0.6% State of Wyoming (907 acres). The BLM Rock Springs Field Office manages the federal surface lands and the federal mineral estate within the project area in Wyoming, and the Little Snake Field Office manages the federal surface lands and the federal mineral estate within the project area in Colorado.

The project area is generally located within Townships 11 through 14 North, Ranges 99 through 102 West, 6th P.M., as shown on Map 1. It lies in an area south of Rock Springs, Wyoming, northwest of Craig, Colorado, and is bisected by Wyoming State Highway 430 and Moffat County Road 10 through its western quadrant.

The proposal includes drilling and developing up to 4,208 wells with 40-acre downhole well spacing per section, if approved by the Wyoming Oil and Gas Commission and the BLM. Associated facilities include additional roads, gas pipelines, compressor stations, one major pipeline, and an addition to a gas treatment facility. The potential effects of the Hiawatha Project on the area are described in Table 1.

Table 1 - Preliminary Estimate of Surface Area Disturbance¹

Facility Type	Initial (Short Term) Disturbance Area ² (acres)	Area of Operations ³ (Long-Term Disturbance Area) (acres)
Well Pad Sites ⁴	12,624	4,208
Roads ⁴	6,312	3,787
Pipelines ⁴	6,312	0
Major Transmission Pipeline ⁵	1,166	0
Addition to Gas Treatment Facility, Compressor Sites, Pig Launching Facilities ⁶	80	80
Total Disturbed Area ⁷	26,494	8,075
Percentage of the Total Project Area ⁸	16.84%	5.13%

¹ This table represents the total area estimated to be disturbed at the Hiawatha Project during its 20- to 30-year construction and 30-year operational life.

² The initial disturbance represents the area disturbed as a result of drilling and associated construction of well pad sites, roads, gas pipelines (facility and major), compressor sites and adding on to an existing gas treatment facility.

³ Following drilling and associated construction, part of the initial disturbance would be reclaimed. The area not reclaimed would be used for operations. Once the gas resource is extracted, facilities would be removed and the area reclaimed entirely.

⁴ An estimated 4,208 well bores would be established in the project area. Initial (Short Term) Disturbance Area: The initial well pad site disturbance for a well would average 6.0 acres per well pad site which includes 3.0 acres for the well pad, 1.5 acres for an access road, and 1.5 acres for pipeline. Area of Operations (Long-Term Disturbance Area): Following drilling and well installation, reclamation would reduce the well pad sites to approximately 1.9 acres which includes 1.0 acres for the well pad and 0.9 of an acre for a road.

⁵ One major transmission pipeline would be needed. It will run from the Canyon Creek Gas Treatment Facility to the Interstate 80 corridor. The width would be 175 feet and the length 55 miles. Pipe diameter would be a maximum of 42 inches.

⁶ It is assumed that one gas treatment facility will be expanded, and estimated to affect approximately 20 acres. It is assumed that 8 additional compressor stations would be required for the project. An estimated five acres would be physically affected at each compressor station site. Several Pig Launching facilities would be required for a total of 20 acres of disturbance.

⁷ This percentage is based on the 157,361 acres within the EIS analysis area.

⁸ Once pipelines are constructed and buried, the disturbed area would be reclaimed in its entirety.

Several geologic formations will be targeted for development including the Fort Union, Lewis, Almond, Ericson, Baxter, Frontier, Dakota, and Nugget formations with well density varying depending on the formation. A 20- to 30-year development period is planned with a 30-year operational period.

At the end of the operational period, surface disturbance including wells pads, roads, and other sites will be reclaimed in consultation with the landowner or BLM to return the land to as close to its original condition and vegetation composition as possible.

4.0 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The BLM has the legal authority to regulate oil and gas operations on BLM-administered lands, pursuant to the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976. In this case, the BLM has determined that an environmental impact statement is required to fulfill the requirements of NEPA. This type of analysis is used to assess the effects of implementing the development proposal by looking at the overall proposal (4,208 wells, roads and pipelines, etc.) and its effects within the area. This document will disclose the environmental effects anticipated, timing of the EIS, and general mitigation and must, by law, comply with the decisions and direction of the applicable RMP. The applicable RMPs are the Green River Resource Management Plan (October 1997) for Wyoming and the Little Snake Resource Management Plan (June 1989) for Colorado. Following the issuance of a Record of Decision, Applications for Permit to Drill (APDs) may be submitted to the BLM for approval on federal surface and minerals.

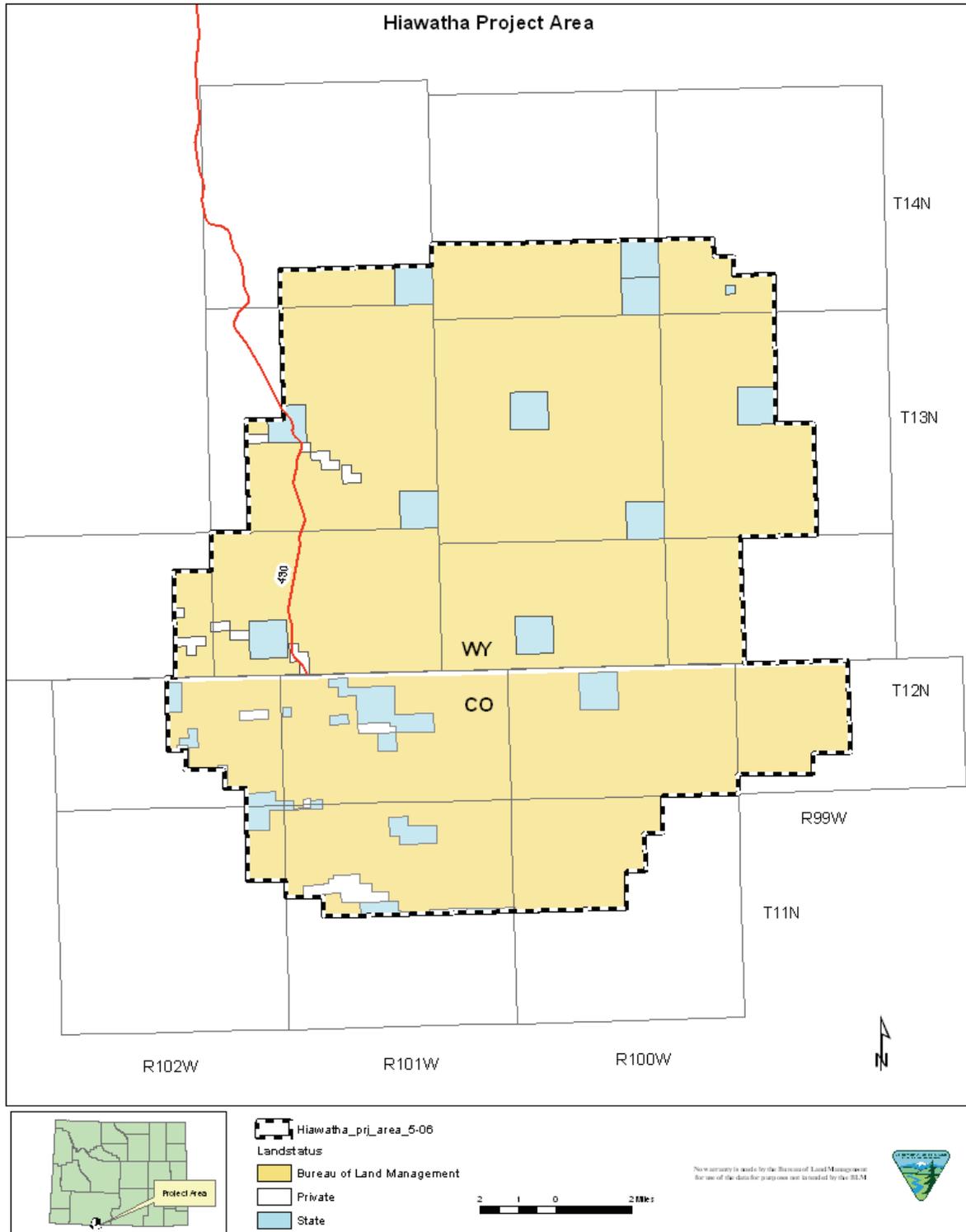
Under BLM regulations, APDs must be submitted and approved prior to any ground disturbing activity on federal minerals and federal surface. APDs are required to contain the detailed, site specific information necessary to assess the effects of the actions proposed and generally are limited to a single discrete proposed action (a well pad site with a road, a single compressor facility, etc.). The type of environmental analysis used is generally an Environmental Assessment (EA). This EA “tiers” to or complies with the provisions and decisions of the larger scale EIS completed for the Project, and the even larger scale RMP. Most project-scale EISs result in a large number of tiered APDs as the operator develops the project.

Section 390 of the Energy Policy Act of 2005 established five new statutory Categorical Exclusions (CX) that apply to oil and gas exploration and development activities. The Section 390 CXs are not subject to the 12 “extraordinary circumstances” that apply to the Department of the Interior Bureaus. The CXs exclude the proposed actions from the need to conduct additional NEPA analysis. All exclusions contemplate some type of previous NEPA analysis.

The environmental analysis actions leading to a final EIS are prescribed by NEPA and consist of the following:

1. Scoping
2. Analysis Actions
3. Documentation
4. Implementation

Map 1 - Hiawatha Project Area



4.1 Scoping

The scoping process will help determine the extent of the environmental analysis necessary for a decision on the project. Elements in the scoping process include the following:

1. Development of the description of the proposed action,
2. Preliminary identification of potential effects caused by the project;
3. Collection of data and information that address the project and general area;
4. Initiation of public participation in the EIS process;
5. Determination of the type and extent of interdisciplinary analysis to be used in the preparation of the draft and final EIS documents;
6. Identification of government agencies involved;
7. Plans for preparation of the draft and final EIS, including selection of a format organization for the document and development of a tentative schedule for EIS completion and publication; and
8. Identification of cooperating government agencies and the assignment of required tasks to the BLM interdisciplinary (ID) team.

4.2 Analysis Actions

Based upon the results of the scoping effort, the following process will be used to assess the nature and significance of the physical, biological, and socioeconomic effects of the proposal:

1. Collection and interpretation of background and baseline data. Data collection will focus on the present and expected physical, biological, and socioeconomic conditions affecting or affected by the proposal.
2. The development of alternatives to respond to important issues identified in the scoping process. Where adverse environmental impacts are identified, appropriate operating measures will be considered and evaluated. A no action alternative will be addressed to provide a baseline for estimating the effects of other alternatives.
3. Assessment of the effects of each alternative. Direct, indirect, and cumulative effects will be considered. Effects will be described as changes in the physical, biological, and socioeconomic environment. These changes will be further described by the magnitude, duration, frequency, reversibility, and significance of the effects.

4.3 Documentation

The BLM published its Notice of Intent (NOI) to prepare the EIS in the Federal Register on September 6, 2006.

4.4 Implementation

The BLM will work with the public, cooperating agencies, and other involved federal, state, and local government authorities prior to making any final decisions on the project. As appropriate, environmental monitoring programs may be developed to respond to site-specific conditions and concerns and will be described in the final EIS. As a matter of law,

and regulation, the BLM monitors oil and gas projects from initial development through final closure to ensure that environmental safeguards are achieved and maintained.

5.0 EIS ORGANIZATION

The organization of the Hiawatha Project EIS effort will be based on legal requirements, Council on Environmental Quality NEPA regulations, and BLM guidelines. The BLM has decided to use the services of an independent third-party contractor to aid in the analysis of the project and the preparation of the EIS document. The EIS organizational responsibilities are described in this section.

5.1 Bureau of Land Management

The BLM is the lead agency responsible for the preparation of the EIS. In this role, there are several levels of responsibility established to fully meet NEPA obligations.

5.1.1 Responsible Official

Wyoming has been designated the Lead Office for the Hiawatha Project. Bob Bennett is the State Director for the BLM's Wyoming State Office. He is directly responsible for the scope and content of the EIS, and ultimately, it is his decision to select which alternative to adopt under this proposal.

5.1.2 EIS Coordinator

The BLM has assigned Susan Davis from the Rock Springs Field Office and Barb Blackstun from the Little Snake Field Office as the EIS Co-Leads. Their responsibilities include coordinating various aspects of the EIS effort including study design, public involvement, outside contracts, review of data collection and analysis, and final preparation of the EIS documents. The EIS Lead is the primary liaison between the BLM, the companies, the third-party contractor, and other agencies and organizations.

5.1.3 Interdisciplinary (ID) Team

The BLM ID team consists of BLM technical specialists. They will be assigned to the project at the request of the Field Managers of the Rock Springs and Little Snake Field Offices and will work under the direction of the EIS Co-Leads. The primary responsibilities of the ID team will be to furnish guidance to the third-party contractor, provide technical information, and participate in the evaluation and presentation of data in the draft and final EIS documents. They will also work with technical specialists from the third-party contractor, cooperating or other interested government agency personnel, and other organizations in the area of their expertise.

5.2 Questar Exploration & Production Company and Other Participating Companies

Questar Exploration & Production Company is the lead company for preparation of the EIS. Questar is responsible for representing the companies to the BLM, and for the exchange of information between the BLM and the companies. Questar will be responsible for the collection and preparation of project plans and for obtaining any additional information as may be required to address the environmental impacts of their proposal. In addition, as specified in the Memorandum of Understanding (MOU) between Questar and the BLM, Questar, on behalf of the participating companies, will be responsible for funding the

independent third-party contractor who will assist in preparing and printing the EIS and related documents under the supervision of the BLM.

5.3 Independent Third-Party Contractor

The contractor retained by the BLM will work under the provisions of the MOU to develop data, analyze effects, and document conclusions leading to the final EIS. The consultant will assign a Project Manager to act as the liaison between the BLM Co-Leads and the contractor's team. The contractor's Project Manager will be analogous to the BLM EIS Co-Leads. The consultant will retain the necessary technical resource specialists who will assist the Project Manager in analyzing data, estimating effects, identifying and evaluating alternatives, formulating mitigation measures, and drafting technical sections of the draft and final EIS documents.

5.4 Cooperating Agencies

At the request or invitation of the BLM, other government agencies may decide to participate in the preparation and review of the EIS documents. This participation is based upon legal requirements, including special expertise and Agency jurisdiction by law. Cooperating agencies will participate not only as reviewers of the draft and final EIS documents but also throughout the analysis process to ensure that relevant issues are addressed. The BLM has initiated contacts to potential cooperating Federal, State, and local agencies and is in the process of establishing their respective agency status. Cooperating Agency invitation letters were sent out in May 2006 to bring the project to the attention of locally interested State, Federal, and local agencies. As of July 26, 2006, the following have agreed to be cooperating agencies on this EIS: Wyoming Department of Agriculture, Wyoming Game & Fish Department, Wyoming Department of Environmental Quality, Wyoming State Geologic Survey, Wyoming Department of Transportation, Dinosaur National Monument, Moffat County Commissioners, Colorado Department of Natural Resources, Sweetwater County Commissioners, and Sweetwater County Conservation District.

6.0 PUBLIC'S ROLE IN THE PROCESS

Public involvement is an important part of the scoping and the environmental analysis process. The BLM wants to ensure that the general public actively participates in the decision-making process and communicates issues and concerns so they can be addressed in the EIS.

To maintain public participation throughout the project, the BLM, as necessary, will put news releases on the radio, in local papers, and on the Hiawatha Project web site (www.blm.gov/eis/wy/hiawatha). In addition, the BLM will mail information to interested parties, conduct public open house meetings, and address local government and civic organization meetings. The input received at the public open house meetings will be coupled with other input to identify the concerns and issues that will be used to develop the draft and final EIS documents. Details of timing and location of these meetings can be found in the "Dear Reader" cover letter for this document. Public involvement will continue throughout the scoping process through receipt of written comments regarding concerns and issues. Written comments or resource information can be mailed to the BLM, Rock Springs Field Office, Attention: Hiawatha Regional Energy Project, 280 Highway 191 North, Rock Springs, Wyoming 82901. Additionally, the public may submit comments electronically at Hiawatha_EIS_WYMail@blm.gov. Project information and documents will be available on

the web at www.blm.gov/eis/wy/hiawatha. A “Scoping Comment Sheet” is included on page 11 for your convenience.

7.0 RELATIONSHIP TO EXISTING PLANS AND DOCUMENTS

7.1 *The Green River Resource Management Plan*

The Green River Resource Management Plan (RMP) (October 1997) directs management of BLM-administered lands within Wyoming in the project area. Based on the information developed during the course of this analysis, the BLM may decide it is necessary to amend the 1997 Green River Resource Management Plan.

7.1.1 Plan Criteria

An amendment to the Green River Resource Management Plan (October 1997) may become necessary. In accordance with BLM Handbook H-1601-1, as part of the planning process, preliminary planning criteria have been developed and are available for review on our website www.blm.gov/eis/wy/hiawatha and upon request in the Rock Springs Field Office. Planning criteria guide development of the potential plan amendment by helping define the decision space or “sideboards” that define the scope of the plan amendment. Final planning criteria will be developed based upon public comment received during this scoping period.

7.1.2 Vermillion Basin Natural Gas Exploratory and Development Project

The Vermillion Basin Natural Gas Exploratory and Development Project Environmental Assessment (2000) and Modified Decision Record (2002) is the current document that allows development in the project area in Wyoming.

7.2 *The Little Snake Resource Management Plan*

The Little Snake Resource Management Plan (June 1989) directs management of BLM-administered lands within Colorado in the project area. There is a 1991 Oil and Gas Amendment to this RMP. This RMP is currently being revised and updated with completion targeted for 2008.

7.3 *Use Authorizations*

Use authorizations (rights-of-way, permits, etc.) for well site facilities, roads, powerlines, and pipelines will be processed through the BLM APD and Sundry Notice permitting process. Any facility located off-lease would require individual right-of-way permits. The Wyoming and Colorado DEQ offices also have responsibilities for issuing various permits for oil and gas development activities under State and Federal Law.

7.4 *Lease Stipulations*

Some leases within the project area include special stipulations on occupancy. These special stipulations are in addition to the standard lease terms. Such special stipulations are imposed to protect surface resources such as soils, water, and wildlife by restricting periods of activity in specific areas. Application of these lease stipulations will be handled on a case-by-case basis for each APD submitted to the BLM.

8.0 SCHEDULE

As part of EIS scoping, a comprehensive project schedule will be prepared which identifies critical target dates and other time frames so the EIS process may be conducted in a systematic and orderly fashion. This schedule will be completed as part of the EIS effort following the closure of the scoping comment period.

9.0 ISSUES

Review of the proposed project has allowed the BLM to identify some preliminary issues associated with the Project. These concerns, along with those developed from scoping, will drive the preparation of the draft EIS. The BLM asks you review these issues in detail and advise us of what issues you believe are significant, or of any other issues that you believe are appropriate for our analysis.

Twelve preliminary issues have been identified for the Project. Please note that this list is not meant to be all-inclusive, but rather it is a starting point for public review and comment and a means for identifying the resource disciplines needed to conduct the analysis.

9.1 Air Quality

1. Ozone, nitrogen, and particulate matter concentrations near the project.
2. Impacts to visibility in Class I areas in the region.

9.2 Cultural Resources

1. Impacts to cultural/historic resources, interpretation, and educational opportunities.

9.3 Hydrology

1. Impacts to water quality, flow levels, groundwater, and aquifers.
2. Impacts to Lower Green River Watershed.
3. Impacts to non-point source water quality.

9.4 Land Use

1. Compatibility of development with existing land uses.

9.5 Livestock Grazing

1. Impacts to existing range improvements and loss of forage.
2. Potential need for new range improvements.

9.6 Reclamation

1. Timing and effective reclamation.
2. Halogeton control.
3. Short- and long-term surface disturbance.

9.7 Recreation

1. Access to public lands for recreational opportunities.
2. Impacts of resource development on recreational opportunities.
3. Off-highway vehicle management.

9.8 Socioeconomic Resources

1. Social, economic, and infrastructure effects from increased work forces.
2. Impacts of development on community infrastructure and tax revenue.
3. Impacts from temporary work force.

9.9 Soils and Vegetation

1. Short-term and long-term erosion.
2. Impacts to riparian habitat from noxious weeds and other invasive species.

9.10 Transportation

1. Impacts of field access roads (construction, placement of culverts, surfacing, maintenance, and prevention of erosion).
2. Transportation planning and dust abatement.
3. Adequate road maintenance through utilization of required road use and maintenance agreements.

9.11 Visual Resources

1. Visual resource sensitivity and reduced visual quality.

9.12 Wildlife and Fisheries

1. Impacts to greater sage-grouse winter habitat, breeding, nesting, and disruption of lek activities.
2. Impacts to winter ranges of all species.
3. Development of habitat management plans.

10.0 PUBLIC PARTICIPATION

Federal, state, and local government agencies and organizations that were mailed a copy of this Scoping Notice are listed in Appendix A.



U.S. Department of the Interior
Bureau of Land Management
Rock Springs Field Office – Rock Springs, Wyoming
Little Snake Field Office – Craig, Colorado



Hiawatha Regional Energy Development Project

Scoping Comment Sheet

Please leave your comments at the registration table or mail them to:
Bureau of Land Management, Attn.: Susan Davis, Rock Springs Field Office,
280 Highway 191 North, Rock Springs, Wyoming 82901

Please Read Carefully

Comments, including names and street addresses of respondents will be available for public review at the Rock Springs Field Office, 280 Highway 191 North, Rock Springs, Wyoming, during regular business hours (7:30 a.m. to 4:30 p.m.) Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish to withhold your name or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your comments. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses will be made available for public inspection in their entirety.

Name/Organization:

Address:

Zip Code:

Comments:

Appendix A

Initial Mailing List

The Scoping Notice initial mailing distribution includes the following list of agencies, individuals, industries, organizations and media.

Government Offices

Bureau of Land Management
Colorado State Office
Little Snake Field Office
Rock Springs Field Office
Wyoming State Office
Colorado State Agencies
Environmental Protection Agency, Region 8
Office of the Governor, State of Colorado
Office of the Governor, State of Wyoming
U.S. Department of the Army, Corp of Engineers
U.S. Fish and Wildlife Services
Wyoming State Agencies

Elected and Other Officials

Colorado State Representative: Al White
Colorado State Senator: Jack Taylor
Mayor of Craig, Colorado
Mayors of Rock Springs, Green River, and Superior, Wyoming
Moffat County Commissioners
Sweetwater County Commissioners
Sweetwater County Libraries
Sweetwater County Planner
U.S. Congresswoman Barbara Cubin (Bonnie Cannon, Representative)
U.S. Senator Craig Thomas (Pati Smith, Representative)
U.S. Senator Mike Enzi (Lyn Shanaghy, Representative)
Wyoming State Representatives*
Stephen Watt
Marty Martin
John Hastert
Bill Thompson
Wyoming State Senators*
Rae Lynn Job
Tex Boggs
Stan Cooper
(*subject to change)

Public Land Users and User Groups

Biodiversity Conservation Alliance
Center for Native Ecosystems
Colorado Big Country RC&D

Public Land Users and User Groups (continued)

Colorado Environmental Coalition
Colorado Mountain Club
Colorado Weed Management Association
Colorado Wilderness Network
Colorado Woolgrowers Association
Earthjustice Legal Defense Fund
Environmental Defense Fund
Independent Petroleum Association of Mountain States
Land and Water Fund
Little Snake Motorcycle Club
Mesa County Wilderness Coalition
National Wildlife Federation
Native American Tribes
 Eastern Shoshone
 Shoshone
 Ute
 Northern Arapaho
 Shoshone-Bannock
People for the West
Petroleum Association of Wyoming
Rock Springs Grazing Association
Rocky Mountain Elk Foundation
Sierra Club
 Northern Plains Representative
 Rocky Mountain Chapter
Southern Utah Wilderness Alliance
Southwest Wyoming Industrial Association
The Environment Protection Foundation
The Nature Conservancy Northwest Colorado Program
Theodore Roosevelt Conservation Partnership
Western Colorado Congress
Western Slope Environmental Resource Council
Wilderness Society
Wyoming Association of Professional Archaeologist
Wyoming Chapter of the Sierra Club
Wyoming Outdoor Council
Wyoming Public Lands Council
Wyoming State Grazing Board
Wyoming Wildlife Federation

Media

Local newspapers
Radio and television stations

APPENDIX C

PUBLIC MEETING SIGN-IN SHEET



REGISTRATION
U.S. Department of the Interior
Bureau of Land Management
Rock Springs Field Office and Little Snake Field Office
Open House for Hiawatha Regional Energy Development Project
Rock Springs, Wyoming
September 28, 2006

Copies of this Registration will be available for public review at the local BLM office during regular business hours. **Individuals requesting that their name and address be withheld from public review** or from disclosure under the Freedom of Information Act **must check "YES" in the "Personal Information" column.** Such requests will be honored to the extent allowed by law.

Name, Mailing Address & Email Address <i>(Please Print Or Write Legibly)</i>	Do you want your personal information withheld?	Do you want a copy of the HREDP Draft EIS?	What are your Public Land Interests?
	YES <input type="checkbox"/> NO <input type="checkbox"/>	Entire DEIS <input type="checkbox"/> Exec Sum <input type="checkbox"/> CD ROM <input type="checkbox"/>	<input type="checkbox"/> All <input type="checkbox"/> Realty <input type="checkbox"/> Grazing <input type="checkbox"/> Minerals <input type="checkbox"/> Recreation <input type="checkbox"/> Wildlife <input type="checkbox"/> Paleo/Cultural <input type="checkbox"/> Other _____
	YES <input type="checkbox"/> NO <input type="checkbox"/>	Entire DEIS <input type="checkbox"/> Exec Sum <input type="checkbox"/> CD ROM <input type="checkbox"/>	<input type="checkbox"/> All <input type="checkbox"/> Realty <input type="checkbox"/> Grazing <input type="checkbox"/> Minerals <input type="checkbox"/> Recreation <input type="checkbox"/> Wildlife <input type="checkbox"/> Paleo/Cultural <input type="checkbox"/> Other _____
	YES <input type="checkbox"/> NO <input type="checkbox"/>	Entire DEIS <input type="checkbox"/> Exec Sum <input type="checkbox"/> CD ROM <input type="checkbox"/>	<input type="checkbox"/> All <input type="checkbox"/> Realty <input type="checkbox"/> Grazing <input type="checkbox"/> Minerals <input type="checkbox"/> Recreation <input type="checkbox"/> Wildlife <input type="checkbox"/> Paleo/Cultural <input type="checkbox"/> Other _____
	YES <input type="checkbox"/> NO <input type="checkbox"/>	Entire DEIS <input type="checkbox"/> Exec Sum <input type="checkbox"/> CD ROM <input type="checkbox"/>	<input type="checkbox"/> All <input type="checkbox"/> Realty <input type="checkbox"/> Grazing <input type="checkbox"/> Minerals <input type="checkbox"/> Recreation <input type="checkbox"/> Wildlife <input type="checkbox"/> Paleo/Cultural <input type="checkbox"/> Other _____
	YES <input type="checkbox"/> NO <input type="checkbox"/>	Entire DEIS <input type="checkbox"/> Exec Sum <input type="checkbox"/> CD ROM <input type="checkbox"/>	<input type="checkbox"/> All <input type="checkbox"/> Realty <input type="checkbox"/> Grazing <input type="checkbox"/> Minerals <input type="checkbox"/> Recreation <input type="checkbox"/> Wildlife <input type="checkbox"/> Paleo/Cultural <input type="checkbox"/> Other _____
	YES <input type="checkbox"/> NO <input type="checkbox"/>	Entire DEIS <input type="checkbox"/> Exec Sum <input type="checkbox"/> CD ROM <input type="checkbox"/>	<input type="checkbox"/> All <input type="checkbox"/> Realty <input type="checkbox"/> Grazing <input type="checkbox"/> Minerals <input type="checkbox"/> Recreation <input type="checkbox"/> Wildlife <input type="checkbox"/> Paleo/Cultural <input type="checkbox"/> Other _____
	YES <input type="checkbox"/> NO <input type="checkbox"/>	Entire DEIS <input type="checkbox"/> Exec Sum <input type="checkbox"/> CD ROM <input type="checkbox"/>	<input type="checkbox"/> All <input type="checkbox"/> Realty <input type="checkbox"/> Grazing <input type="checkbox"/> Minerals <input type="checkbox"/> Recreation <input type="checkbox"/> Wildlife <input type="checkbox"/> Paleo/Cultural <input type="checkbox"/> Other _____

APPENDIX D

SUBSTANTIVE SCOPING COMMENTS

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
AC	60	2	Individual	Close proximity to Citizen Proposed Wilderness will require BLM to develop a process to minimize visual, air and other impacts that will degrade wilderness character from the area.
AC	68	2	Individual	Areas suitable for Wilderness designation and included in the Kinney Rim Citizen's Proposed Wilderness are included in this plan. The BLM should only consider a plan that excludes these areas so that they remain roadless and primitive.
AC	68	11	Individual	protecting unroaded and wild areas for the benefit of ...people seeking primitive recreation opportunities and solitude must be part of any plan.
AC	69	1	Individual	After reviewing the proposal to allow rampant drilling of the Questar Hiawatha Project, I was appalled at the wanton disregard for the protection of the magnificent Red Desert and the Kinney Rim proposed wilderness. This spectacular area should be protected for future generations to inherit and to enjoy in a natural state that preserves its awesome beauty and isolation. I find it difficult to comprehend that the BLM would even consider opening so much of this Wyoming jewel for destruction and exploitation by corporate interests.
AC	69	2	Individual	This absurd project should not even be considered until the BLM takes into account the following factors. 1. Protection of the Kinney Rim citizens' proposed wilderness
AC	71	1	Individual	The Questar Hiawatha drilling project boundary should be adjusted to exclude all roadless lands within the Kinney Rim citizens' proposed wilderness. While BLM dismisses these lands as "common grazing land," the agency does recognize them as roadless, and there are outstanding primitive recreation opportunities along the magnificent heights of the Kinney Rim. Full-field development should not be allowed to swallow up the roadless lands along the base of the rim.
AC	73	2	Biodiversity Conservation Alliance	There are several important environmental considerations for this project. First, the project area encompassed substantial expanses of the Kinney Rim South and Kinney Rim North citizens' proposed wilderness areas, and also is adjacent to citizens' proposed wilderness units in the Vermillion Basin of Colorado. These areas are easily as spectacular as the Vermillion Basin citizens' proposed wilderness areas on the Colorado side of the line, with similar scenery. The project area boundary should absolutely be modified to exclude all citizens' proposed wilderness lands, which have high value to the public (regardless of whether they have high value to the BLM). This would be an easy way for the BLM to reduce the controversy surrounding this project.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
AC	73	43	Biodiversity Conservation Alliance	The BLM should recognize the multiple use aspects and the full extent and value of existing wilderness character as a resource within and near the proposed project area. BLM lands within Moffat and Sweetwater counties contain pristine wildlands, including the sage grouse leks and Citizens' Proposed Wilderness Areas. The multiple benefits that derive from protecting wilderness quality lands include positive economic impacts to local communities. This project should prevent oil and gas development on all existing lands with wilderness character in a manner that protects against impairment and also ensures the existence of wilderness within the proposed project area for future generations.
AC	78	1	Individual	The proposed wilderness are of 30,000 acres of the Kinney Rim are included in the drilling project boundary. While BLM dismisses these lands as "common grazing land," the agency does recognize them as roadless, and there are outstanding primitive recreation opportunities along the magnificent heights of the Kinney Rim. Full-field development should not be allowed to swallow up the roadless lands along the base of the rim. The boundary of the project boundary should be adjusted to exclude all roadless lands within the citizens' proposed wilderness.
AC	80	26	Wyoming Outdoor Council	The area where the Hiawatha Project would be build is visually and ecologically stunning, and BLM should recognize and seek to protect this through the Hiawatha Project EIS. It is home to or immediately adjacent to wilderness quality lands surrounding the Adobe Town Wilderness Study Area. The Vermillion Basin is an austere moonscape that is incredibly striking, and is home to proposed wilderness areas. Lookout Mountain, Diamond Mountain, and Kinney Rim, all amazing vantage points with sweeping 100 mile views, ring this area; their views are largely defined by what lies below in the Hiawatha Project area. The Irish Canyon Area of Critical Environmental Concern in nearby. The EIS must recognize this amazing landscape, recognize its grandeur. The ROD must ensure it is protected.
AC	82	4	Individual	There are more specific issues as well. The proposed development includes about 30,000 acres of the citizen's proposed wilderness and much of this land is considered "roadless." This is EXTREMELY rare in Wyoming and we need to maintain the area in this condition.
AC	94	5	Individual	I also propose that on the BLM maps or in this draft EIS there should not be a listing or lines drawn around the citizen's proposed wilderness areas of Vermillion Basin and Kinney Rim, because these are not considered as wilderness and should be not shown on the map as proposed areas.
AQ	73	139	Biodiversity Conservation Alliance	AIR QUALITY When combined with existing, permitted, and reasonably foreseeable future emission sources, we have substantial concerns that the Hiawatha Project will result in a significant cumulative increase in regional emissions of air pollutants which poses a significant threat to air quality related values throughout Wyoming, as well as in northern Colorado. In the past, the BLM has systematically underestimated the air quality and visibility impacts associated with oil and gas projects and as a result has failed to meet the basic "hard look" requirements mandated by the National Environmental Policy Act. The forthcoming EIS must comply with BLM's non-discretionary duty under the Federal Land Policy and Management Act

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				(FLPMA) to "provide for compliance with applicable pollution control laws, including state and federal air ...pollution standards or implementation plans[.] 43 USC 1712(c)(8), and to "require compliance with air and water quality standards established pursuant to applicable Federal and State law." 43 CFR § 2920.7
AQ	73	140	Biodiversity Conservation Alliance	<p>The Draft EIS must include all sensitive receptors potentially impacted by this and other developments that should be included in the cumulative effects analysis.</p> <p>The EIS must analyze cumulative effects on all airsheds that might potentially be affected by the project, including the Bridger, Popo Agie, Savage Run, Mt. Zirkel, Teton and Washakie wilderness areas, and Rock Mountain and Grand Teton National Parks, all of which are mandatory Class I areas, and all or portions of which are included in the modeling domain (Figure 4-1). Because NEPA requires a hard look at all potential direct, indirect and cumulative effects of a proposal, the far field analysis should have included these sensitive receptors. The need to do so is particularly urgent because other recent analyses (see, e.g., Powder River Basin Oil and Gas Project EIS, Pinedale Anticline EIS) reveal significant cumulative impacts to air quality related values in these areas, to which any addition of pollutants from the Hiawatha project would increase and further exacerbate the already significant impacts.</p>
AQ	73	141	Biodiversity Conservation Alliance	<p>The Draft EIS must include all reasonably foreseeable future emission sources.</p> <p>A scientifically defensible and legally adequate environmental disclosure requires consideration of all reasonably foreseeable emission sources, not just those related to oil and gas activities. The EIS should include an expanded inventory that lists all expected increases in emissions from both mobile and stationary sources in the study area , including projected increases in railroad and highway traffic, as well as mines, power plants, and other emission sources.</p> <p>Second, with respect to reasonably foreseeable future natural gas activity, the EIS must include many significant proposed projects which have either been approved or are presently undergoing NEPA review, including but not limited to:</p> <ul style="list-style-type: none"> * Powder River Basin Oil and Gas Development Project Record of Decision (WY-070-02-065), 51,000 CBM wells (April 2003); * South Piney CBM Project - 210 wells, Sublette County, (68 Fed. Reg 4513, January 29, 2003); * EnCana, Inc's Jonah Field Infill Drilling Project, Sublette County, 3,100 wells; * Seminoe Road CBM Project, 1,240 wells, Carbon County, (68 Fed.Reg 12101, March 13, 2003); * Atlantic Rim CBM Project, 2,000 wells, Carbon County, (66 Fed. Reg. 33975, June 26, 2001); * Wind River Natural Gas Development Project, Fremont County, 325 wells (being added to existing field consisting of 160 wells never previously analyzed in NEPA document) (68 Fed. Reg 3543, January 24, 2003); * Big Porcupine CBM Project, TBNG, 453 CBM wells; * Kennedy Oil Pilot Exploratory CBM Project, 20 wells, Rock Springs Field Office, Sweetwater County;

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<ul style="list-style-type: none"> * Copper Ridge Shallow Gas Project, 89 wells, Rock Springs Field Office, scoping ended November 15, 2002, EA pending; * Pacific Rim Coalbed Methane Project; * Bitter Creek CBM Project; * Oil and gas developments in the Little Snake Field Office in Colorado; * Continental Divide – Creston Project (8,950 new wells); * Reasonably foreseeable oil shale development, including the proposed leasing project proposed by Anadarko north of Kinney Rim plus projects in NW Colorado; * Little Monument Unit Natural Gas Project, 31 additional wells in the Fontenelle National Gas Infill Drilling Project area in Sweetwater County; * Moxa Arch Infill Project.
AQ	73	142	Biodiversity Conservation Alliance	<p>The DEIS must include emission sources located outside the study area that will impact Class I sensitive receptors.</p> <p>The forthcoming EIS must consider existing and reasonably foreseeable future emissions from coal bed methane (CBM) and other industrial (i.e., mineral and energy) developments in the Powder River Basin. This significant new source of regional emissions cannot be ignored. As the BLM knows, the Powder River Basin Oil and Gas Project FEIS (January 2003) discloses significant direct and cumulative impacts to air quality in western Wyoming, including significant impacts to air quality related values in several Class I areas that are also affected by this project, including the Bridger and Fitzpatrick wildernesses. See Final Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project, Volume 2, Chapter 4 (discussion of cumulative impacts beginning at page 4-386); and Volume 3, Appendix F – Air Quality Technical Support Document (showing significant visibility impacts in Bridger, Fitzpatrick and Washakie Wilderness areas, among others). Thus, the Draft EIS must not seriously underestimate the potential cumulative air quality impacts by ignoring emissions from existing and proposed industrial developments in the Powder River Basin. Including these air pollutant loads, projected cumulative impacts to air quality related values in western Wyoming would potentially exceed applicable ambient air quality standards, PSD increments, and established significance criteria.</p>
AQ	73	143	Biodiversity Conservation Alliance	<p>The BLM must ensure compliance with air pollution standards.</p> <p>The BLM is required under NEPA to thoroughly analyze whether implementation of the Hiawatha Project, together with other existing and reasonably foreseeable future actions, will violate state or federal ambient air quality standards or exceed increments established for Class I and II areas. Specifically, to satisfy NEPA's requirements, the Draft EIS must contain sufficient information to enable decisionmakers to determine whether existing, permitted and reasonably foreseeable industrial and energy development in Wyoming will comply with ambient air quality standards and Prevention of Significant Deterioration (PSD) increments established under the Clean Air Act, 42 U.S.C. §§ 7401 et seq. This analysis is also required to ensure that BLM complies with Federal Land Policy Management Act regulations requiring that "each land use authorization shall ... (3) Require compliance with air and water quality standards established</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
AQ	73	144	<p>Org. Biodiversity Conservation Alliance</p> <p>NEPA regulations also require that an EIS discuss the “possible conflicts between a proposed action and the objectives of Federal, regional, State and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned.” 40 C.F.R. § 1502.16(c); see also 40 C.F.R. § 1502(d) (requiring discussion of “any inconsistency with any approved State or local plan and laws (whether or not federally sanctioned)”). In addition, an EIS must discuss the “significance” of the environmental effects of a proposed action, 40 C.F.R. § 1502.16(a) and (b) – a term that requires consideration of “[w]hether the action threatens a violation of Federal State or local law or requirements imposed for protection of the environment.” Id. § 1508.27(b)(10). These requirements are reinforced by Section 202(c) of FLPMA, the BLM’s “organic act” and substantive law governing activities on BLM-administered lands, which requires the agency to “provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans ...” 43 U.S.C. § 1712(c)(8). The analysis in this Draft EIS must meet these basic requirements.</p> <p>1) The Draft EIS' Must Conduct Complete Increment Consumption Analysis Pursuant to FLPMA and NEPA.</p> <p>The significance criteria for potential air quality impacts includes a violation of the National, Colorado and Wyoming Ambient Air Quality Standards and any exceedance of the PSD increments for Class I or Class II areas. The forthcoming air quality assessment must include a complete increment consumption analysis sufficient to determine whether increments have been exceeded, and must represent a regulatory PSD increment consumption analysis.</p> <p>a) Appropriate Baselines.</p> <p>The essential element of an increment consumption analysis is a determination of the extent to which the allowable increment has been consumed since the baseline was set for the area affected by the proposed projects. The significance criteria for potential air quality impacts include PSD increments, which limit the incremental increase of NO₂, SO₂, PM₁₀ and PM_{2.5} concentrations above legally defined baseline limits. The Draft EIS must analyze potential air quality impacts against realistic baselines that conform with the requirements of the Clean Air Act. Under the Clean Air Act, PSD increments are “maximum allowable increases over baseline concentrations.” 42 U.S.C. § 7473(b) (emphasis added). The Act defines “baseline concentration” as: with respect to a pollutant, the ambient concentration levels which exist at the time of the first application for a permit in an area subject to this part, based on air quality data available in the [EPA] or State air pollution control agency and on such monitoring data as the permit applicant is required to submit. . . . Emissions of sulfur oxides and particulate matter from any major emitting facility on which construction commenced after January 6, 1975, shall not be included in the baseline and shall be counted against the maximum allowable increases in pollutant concentrations established under this part.</p> <p>42 U.S.C. § 7479(4) (emphasis added); see also 40 C.F.R. § 52.21(b)(13)(i). State and federal implementation plans must contain measures assuring that these “maximum allowable increases over baseline concentrations . . . shall not be exceeded.” 42 U.S.C. § 7473(a) (emphasis added).</p> <p>The BLM’s analysis of the direct and cumulative effects on Class I and Class II increments must satisfy the definition of “baseline concentration” prescribed by the Clean Air Act. The Draft EIS must identify the minor source baseline dates for any of the pollutants in both Wyoming and Colorado. (The NO₂ baseline area in Wyoming is Statewide. The minor source baseline date was set February 28, 1988, soon after the February 8, 1988, trigger date established by EPA. See 53 Fed. Reg. 40656 (October 17, 1988). For particulate matter, the trigger date was in 1978, and the minor source baseline dates were set soon thereafter in both states). Thus all new sources, both major and minor stationary sources, as well as additional mobile source emissions, consumed the allowable increment after those dates.</p> <p>Given the level of industrial development in Wyoming since the establishment of the regulatory baselines, including major sources such as power plants and gas treatment facilities, the sources omitted from the consumption analysis are likely significant if only newer sources are considered, and major consumers of increment. If BLM chooses to consider only the sources permitted and expected to be permitted after 1995, the consumption of increment that has occurred from earlier development is not counted in the current increment calculations. All emission sources (major or minor, stationary or</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
		Org.	<p>mobile) that may affect Wyoming's Class I area -- whether within or outside the study area -- must be included in the modeling analysis to understand the consequences of new development for full increment consumption in the Class I areas.</p> <p>This has potentially significant consequences for the EIS because Class I and Class II increments have already been partially consumed, an important point that must be taken into account in the analysis. The failure to include a comprehensive increment consumption analysis would render the EIS inadequate because without such analysis it is impossible to determine whether increments have been consumed by prior development, or whether the proposed actions will cause the increments to be exceeded. Such an analysis would be seriously deficient with respect to characterizing the magnitude of increment consumption that must be identified before the BLM may issue a decision approving the proposed action. Without a proper "regulatory" increment consumption analysis, the BLM is unable to demonstrate compliance with state and federal air quality standards.</p> <p>b) Omission of Reasonably Foreseeable Future Projects.</p> <p>The BLM must not exclude reasonably foreseeable future actions from its consideration of cumulative air quality impacts, as this would substantially skew the analysis of air quality effects on Wyoming and Colorado PSD increments, ambient air quality standards, visibility goals in Class I area, and impacts to ANC at sensitive alpine lakes. The Draft EIS must include air emissions from the 3,880- to 1,900-well Atlantic Rim project, as well as emissions from a large number of other industrial developments proposed in Wyoming, including but not limited to nearly a dozen other natural gas projects totaling over 50,000 wells.</p> <p>Taken together, these projects will be major sources of air emissions with significant impacts upon PSD increments, ambient air quality, visibility and ANC at sensitive lakes. BLM cannot ignore these otherwise "reasonably foreseeable" future projects from consideration in its analysis of the cumulative effects on air quality results in an analysis that substantially underestimates the cumulative air quality impacts of this Project.</p> <p>2) BLM may not rely on State regulatory programs to satisfy its independent obligations under FLPMA and NEPA to assess air quality impacts and compliance with air quality standards. Reliance on the State's regulatory program cannot be substituted for the affirmative duty imposed on BLM to provide for compliance with NAAQS and the increments, both because FLPMA requires that BLM comply with state standards, and because BLM has no assurance that the State will perform a complete increment consumption analysis before the proposed actions are substantially underway and contributing to additional emissions that may add to further exceedances of increments or cause increments to be violated. For these reasons, the EIS must include the increment consumption analysis so that BLM's obligation to develop and adopt sufficient mitigation measures may be performed as part of the project NEPA analyses and adopted as conditions in the ROD. The fact that the State has a legal responsibility to protect increments does not mean that BLM is thereby relieved of its independent responsibility under FLPMA to "provide for compliance with pollution standards," or its obligation under NEPA to fully describe the cumulative impacts of the proposed projects and identify mitigation measures to prevent adverse impacts. Simply put, BLM's obligations to assess and provide for compliance with PSD increments cannot be delegated to a State agency.</p> <p>Emissions from the projects under review are associated with a large number of small to medium sized sources that are not expected to exceed the threshold for "major stationary source." The Wyoming PSD SIP only requires that major sources perform an increment consumption analysis and an assessment of visibility impairment in Class I areas. See Chapter 6, Permitting Requirements, Section 4 PSD. The provisions governing the permitting of minor sources only require that the applicant demonstrate that "the proposed facility will not cause significant deterioration of existing ambient air quality in the Region as defined by any Wyoming standard or regulation that might address significant deterioration." Chapter 6, Section 2(c)(iii). This provision does not explain what standard, if any, applies, nor does it describe the "region" that must be considered, whether emissions from the minor source must be considered together with emissions from other permitted and reasonably anticipated sources, or what pollutants are to be considered. Moreover, the DEQ's Air Quality Administrator has indicated that the state has never performed any increment consumption analysis to determine</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				if the Wyoming PSD SIP is being complied with." See Letter from Dan Olson, Administrator, DEQ/AQD to Dan Heilig, Director, WOC, dated May 19, 2003.
AQ	73	145	Biodiversity Conservation Alliance	<p>NEPA and FLPMA require a thorough discussion of mitigation measures to prevent air quality violations, exceedance of increments and adverse impacts to AQRV.</p> <p>The CEQ regulations interpreting NEPA require that the EIS identify the "means to mitigate adverse environmental impacts," 40 CFR 1502.16(h), and "include appropriate mitigation measures already included in the proposed action or alternatives." 40 CFR 1502.14(f). "Mitigation" is defined to include "(a) avoiding the impact altogether by not taking a certain action," and "(b) minimizing impacts by limiting the degree or magnitude of the action." 40 CFR §1508.20. Where federal or state environmental standards are shown to be adversely affected by the proposed action (e.g., cumulative visibility impacts in the Bridger Wilderness), the NEPA review must at least identify sufficient mitigation measures that will prevent the adverse impact. This obligation is reinforced by FLPMA which establishes the obligation to "provide for compliance with pollution standards." Thus the DFEIS is inadequate both because it fails to describe the full magnitude of the exceedances of increments that will result from adding emissions from the proposed project and other reasonably foreseeable future actions, and it fails to identify the mitigation measures that will effectively prevent those adverse impacts.</p> <p>The Draft EIS must identify exceedances of near-field Class II increments in the project area, as well as Class I and II exceedances in far-field areas. The BLM must conduct a full modeling analysis of all emissions to determine the amount of increment that is available for new emissions. BLM must prepare a proper and thorough air quality analysis, and then identify mitigation measures sufficient to prevent any clean air violations. BLM's obligation is not limited to considering the direct impacts of the proposed project. It must consider the cumulative impacts of the proposed project, including impacts in areas where the NAAQS and increments are currently violated or where additional emissions will cause those standards to be violated. If the revised DEIS identifies expected violations of the federal pollution standards, 43 USC §1712(c)(8) prohibits the project from being approved until sufficient mitigation measures are adopted to prevent or remedy these violations. The kinds of mitigation measures that should be identified and evaluated for effectiveness in the Draft EIS include phased development of the fields, emissions reductions from other stationary sources, low-emission drilling rigs powered by natural gas or electricity, and more stringent emission control technologies.</p>
AQ	73	146	Biodiversity Conservation Alliance	<p>Visibility Impairment in Class I areas must be prevented.</p> <p>The Clean Air Act imposes on the Secretary of the Interior, as a Federal Land Manager ("FLM"), "an affirmative responsibility to protect the air quality related values (including visibility) of any such lands within a Class I area and to consider, in consultation with the Administrator, whether a proposed major emitting facility will have an adverse impact on such values." 42 USC §7475(d)(2)(B).</p> <p>The Secretary's affirmative responsibility to protect visibility in these Class I areas is not limited by the Act to major stationary sources. Indeed, EPA's PSD rule requires the FLM to "consider, in consultation with the Administrator, whether a proposed source or modification would have an adverse impact on such values." 40 CFR §51.166(p)(2). Under the PSD rule, "Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant subject to regulation under the Act." Id., §51.166(b)(5). This obligation is therefore not limited to "major stationary sources."</p> <p>The Secretary's affirmative responsibility applies not only to the review of permits for major stationary sources, but also applies to the implementation of RMPs under FLPMA. Under FLPMA, public lands are to be managed to "protect the quality of ...ecological, environmental, air and atmospheric, water resource and archeological values; [and] that where appropriate, will preserve and protect certain public lands in their natural condition." 43 USC §1701(a)(8). When the Secretary, acting through the BLM, is also authorizing major action for other federal public lands where the activities being authorized are shown to interfere with the express policies enacted to protect parks, wilderness and monuments under</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	<p>her stewardship, then the Secretary must exercise her authority under FLPMA to ensure that the air and atmospheric resources (including visibility) in Class I areas are protected.</p> <p>The Draft EIS must model cumulative visibility impacts to wilderness areas affected by the Hiawatha project. The cumulative visibility impacts in these Class I areas are likely much greater than shown because Powder River Basin emissions sources and other reasonably foreseeable future emission sources were ignored. The Draft EIS must take into account this evidence of deterioration in visibility, and must explain how the FLM will carry out the affirmative responsibility to protect visibility in these areas. The Act requires protection of visibility in Class I areas which is not determined by one source, or one set of sources, but by all sources adding emissions since the national goal was enacted. It is visibility impairment caused by these cumulative impacts that must be addressed and prevented. In addition to the affirmative responsibility to "protect" visibility in Class I areas under her charge as an FLM, the Secretary acting through BLM under FLPMA, also has a responsibility to ensure the national visibility goal established by the Clean Air Act is implemented in all Class I areas likely to be impacted by emissions from developments authorized by BLM. The CAA "declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution." 42 USC §7491(a)(1). EPA has promulgated rules to implement this national goal. 40 CFR Part 51, subpart P. These regulations include requirements defining reasonable progress toward the national goal. "The reasonable progress goals must provide for an improvement in visibility for the most impaired days over the period of the implementation plan and ensure no degradation in visibility for the least impaired days over the same period." 40 CFR §51.308(d)(1). This rule has been affirmed by the D.C. Circuit Court of Appeals in response to an attack by industry arguing that EPA is not authorized by the Act to establish a "no degradation" standard. <i>American Corn Growers v. EPA</i>, 291 F.3d 1 (D.C. Cir 2002) ("Petitioners' claim that the agency is without authority to mandate attainment of the national goal is therefore meritless.")</p> <p>This standard for reasonable progress must be addressed in the EIS. At a minimum, the EIS must identify the visibility for the least impaired days in each of the Class I areas where significant impacts are predicted, and the extent to which the additional emissions from the projects combined with other regional emissions increases would cause degradation on those days. The results of that analysis should then be considered for the purpose of identifying the kinds of mitigation measures necessary to achieve the no degradation standard. This should also be addressed before any final action to approve the project or adopt final mitigation measures as part of the ROD.</p>
AQ	73	147	Biodiversity Conservation Alliance	<p>Acid rain impacts should not be underestimated.</p> <p>The BLM must undertake a legally and technically sufficient cumulative effects analysis, including analysis of Acid Neutralizing Capacity levels and their relationship to established Limits of Acceptable Change. The BLM must consider impacts from all identified reasonably foreseeable future actions, including the Powder River Basin developments. Mitigation measures should fully ameliorate any exceedences which occur as a result of increased air pollution</p>
AQ	73	148	Biodiversity Conservation Alliance	<p>Compression emissions. The horsepower of proposed compressors and their resulting emissions must be fully documented in the Draft EIS.</p>
AQ	73	149	Biodiversity Conservation Alliance	<p>Gas treatment plant emissions. The number and type of gas treatment plants (and their site locations) must be fully disclosed in the Draft EIS, and the amount and type of resulting air pollution must be modeled.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
AQ	73	150	Biodiversity Conservation Alliance	Well production emissions. The Draft EIS must identify well production emissions. The emissions inventory must include VOC (including HAP) emissions from well "blow downs," a common, yet often overlooked (in air quality analyses), technique used to enhance production. In addition, VOC emissions from condensate tanks must be thoroughly analyzed and evaluated for all alternatives.
AQ	73	151	Biodiversity Conservation Alliance	Fugitive dust. The Draft EIS must disclose fully the impacts of fugitive dust, and the effectiveness of mitigation measures. Watering costs operators money, so it is rarely done. In our experience, 50% control efficiency for particulates cannot be realistically achieved, and in fact is not achieved in any oil and gas project under BLM's jurisdiction.
AQ	73	152	Biodiversity Conservation Alliance	<p>Wind Erosion Emissions. Wind erosion estimates cannot be provided for the construction period only; they must include emissions from continued wind erosion that will occur over the life of the project. A specific problem area of the emission inventory is that existing techniques for estimating fugitive dust emissions are incomplete, inadequate, and probably severely underestimate the actual PM10 and PM2.5 emissions. A recent report prepared for the Western Regional Air Partnership by a panel of experts (WGA, 2001) has extensively examined the issue of fugitive dust. Specific findings from this effort that apply directly to this impact analysis are:</p> <ul style="list-style-type: none"> · Fugitive dust emission factors need to be appropriate. · Fugitive dust emissions are not continuous processes. · Source activity levels need to be accurate. · Annual fugitive dust emission inventories are not sufficient. · Spatial allocation of fugitive dust emissions is important. · The fine fraction of fugitive dust emissions is not adequately characterized. · Disturbed surfaces produce significantly more fugitive dust than undisturbed surfaces. <p>The air quality analyses presented cannot rely on the out-dated EPA emission factors and thus underestimate fugitive dust emissions</p> <p>In addition to the use of out-dated emission factors, major sources of fugitive dust emissions directly associated with the proposed Project must be included in the air quality analysis:</p> <ul style="list-style-type: none"> · Increased road dust emissions due to increased non-project travel (recreational, curiosity, miscellaneous) on new dirt roads developed specifically for the Project; · Increased wind blown dust from surfaces disturbed by development due to the fact that disturbed surfaces produce significantly more fugitive dust than undisturbed surfaces (WGA, 2001);
AQ	74	5	United States Environmental Protection Agency, Region 8	The potential project activities will result in emission of atmospheric pollutants. The EIS should incorporate an assessment of current and future air quality conditions. It should use suitable data sets from ambient air monitoring programs and appropriate approved air modeling techniques. The assessment should cover the full development, including wells, compressors, and other surface facilities, as well as associated transportation activities, and address all categories of emissions that will occur during the construction and operating phases. The cumulative impact of energy-related activities and other reasonable foreseeable energy development and other activities that may affect air quality in the area should be included. Examining anticipated activity trends in the study area, not just already approved "on-the-ground" projects, is appropriate for inclusion. Examining activity trends in other areas with similar uses and

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>contributory metrics can also be useful in this analysis.</p> <p>Based upon the results of the assessment, the EIS should disclose the reasonably foreseeable impacts of air pollutants. It should disclose impacts to applicable National Ambient Air Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) increments, as well as on air quality related values in Class I areas. Specific pollutants of concern include NOx, Sulfur Dioxide (SO2), and fine particulate contributions to regional haze. Impacts to visibility and the potential for regional haze from the range of alternatives need to be estimated. The potential for near-field exceedance of the PM10 NAAQS is a concern because of road dust emissions. Also, so is the exceedance of the NAAQS for ozone due to the project's potential emissions of ozone precursor compounds (i.e., Nox and VOCs).</p>
AQ	74	6	United States Environmental Protection Agency, Region 8	<p>The EIS should identify all relevant, reasonable mitigation for air quality impacts, even if they are outside the jurisdiction of BLM. The probability of the mitigation measures being implemented should also be discussed. Potential mitigation measures being implemented should also be discussed. Potential mitigation measures may include, but not be limited to, best available diesel engine technology, natural gas rigs, recent "flex-rig" technologies, and fugitive dust control measures for roadways. Other technologies may need to be considered which can reduce venting and flaring. Such technologies to consider include flareless flowback and flash tank separators, vapor recovery units on dehydrators and instrument air or electric pumps instead of gas-driven pumps. We recommend that the EIS indicate a path assure compliance with the NAAQS. Specifically, the EIS should outline both regulatory and non-regulatory processes that are in place to address air quality concerns in the project area, as well as include all mitigation.</p>
AQ	74	11	United States Environmental Protection Agency, Region 8	<p>Dust particulates and sediment resulting from construction and ongoing operations on roadways are important concerns, including indirect impacts on plants due to deposition. Please include detailed plans for addressing dust control for the projects. Items in the plan should include, though not necessarily limited to, dust suppression methods, inspection schedules, and documentation and accountability processes. Construction techniques such as 95% base compaction prior to placement of gravel on gravel roads, use of concrete or asphalt roads, culverts for water drainage, steep slope construction measures to prevent erosion, and appropriate dust control methods (such as placement of a non-chlorine based dust abatement chemical treatment), are important dust suppression and sediment reduction techniques</p>
AQ	74	22	United States Environmental Protection Agency, Region 8	<p>Greenhouse gas emissions The development of oil and gas projects will generate greenhouse gases, including methane and CO2. The EIS should include an evaluation of project greenhouse emissions and their potential control technologies to provide public disclosure of this environmental impact. Analysis of the CO2 emissions is consistent with the Administration's policies to reduce U.S. greenhouse gas emissions over the next 10 years without sacrificing economic growth. (See the Council on Environmental Quality's Climate VISION web site). An analysis of this reduction of CO2 emissions, covering the expected design life of the project, would seem appropriate. Addressing CO2 emissions in proposed federal actions subject to NEPA is also consistent with the 2005 decision from the 8th Circuit Court of Appeals on the proposed DM&E Railroad as analyzed in the Final EIS prepared by the Surface Transportation Board (Mid States Coalition For Progress, et al. v.</p>
AQ	77	2	Individual	<p>The emissions from production equipment and operations should be accurately measured or estimated on each well site. Level controllers, dump valves temperature controllers and other equipment are usually operated on produced natural gas resulting in a quantity of hydrocarbon emitted to the atmosphere. This value is available from the equipment manufacturer. Natural gas condensate storage tanks emit hydrocarbon vapors as condensate is dumped to the tanks. This volume may equal 20 percent, or more, of the recovered condensate values. This value is measurable. The weight</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>volume of these emissions should be calculated based on a chromatographic analysis of the natural gas or natural gas liquids produced. Production facilities require the burning of produced gas as a heat medium and, in some cases, to reduce hydrocarbon emissions from stock tanks. This burning can result in the emission of unburned hydrocarbon and other pollutants and will produce carbon dioxide, a greenhouse gas. These volumes should be stated. The value of these emissions must be added to the values of the current emissions of the existing field to obtain accurate cumulative emissions value.</p>
AQ	80	1	Wyoming Outdoor Council	<p>The EIS must address direct and cumulative impacts to visibility in Class I areas. Class I areas of special significance include Rocky Mountain National Park, the Bridger Wilderness Area, the Flat Tops Wilderness Area, and the Mount Zirkel Wilderness Area, although a number of other Class I areas and areas of great public concern (e.g., Dinosaur National Monument) may be affected and should be considered. WE request that BLM use 0.5 dv as the measure of significant impacts to Class I areas. This is in accordance with Forest Service and Park Service policy and guidance. We request that BLM consider and abide by the Federal Land Managers Air Quality Related Values Working Group (FLAG) guidelines, available at http://www.fs.fed.us/r6/qaq/natarm/Flag_final.pdf. As the Federal Land Manager of these areas, BLM should give deference to these policies regarding significance and protection of visibility in Class I areas. BLM must prevent significant impacts in order to comply with the national goal of preventing any impairment to visibility in Class I areas, not merely analyze them, and the record of decision (ROD) for this project should so provide.</p>
AQ	80	2	Wyoming Outdoor Council	<p>The EIS must fully consider and the ROD prevent deposition of compounds that acidify or fertilize alpine ecosystems at levels that harm air quality related values in Class I areas. In this regard, we request that BLM consider and abide by the critical loads developed for Rocky Mountain National Park and abide by those standards in all Class I areas affected by deposition from the Hiawatha Project. See http://www.cdphe.state.co.us/ap/rmnp/rmnpCLLetter.pdf. See also http://www2.nature.nps.gov/air/Pubs/pdf/2005CriticalLoadBioSci.pdf (establishing critical load levels for Rocky Mountain National Park).</p>
AQ	80	3	Wyoming Outdoor Council	<p>Ozone is a critical issue that the EIS must address. The Rawlins Resource Management Plan documented that ozone levels were already 94 percent of the National Ambient Air Quality Standard (NAAQS) in this general area and exceedances of the NAAWS are being recorded in the Jonah Field. Significant increases in ozone levels are being detected in Rocky Mountain National Park. http://www2.nature.nps.gov/air/Pubs/pdf/grpa/Grpa2005_report_03202006_Final.pdf. The Denver area is struggling to avoid non-attainment status for ozone. With respect to ozone, we specifically request that BLM not employ the Scheffe method to estimate ozone levels, that that it instead use a modern and scientifically valid model such as CAMQ or CAMX. The Scheffe method has been found by its developer to have no scientific validity. Exhibit 1. Other, valid methods, such as CAMQ, are available and have utility in rural areas. Exhibits 2 and 3. We ask that Exhibit 2 be generally considered relative to the ozone analysis and not just with respect to the method that will be employed. WE would note that even if the EPA and state environmental quality agencies were to acquiesce in the use of the Scheffe method, that would not change the fact that it has been deemed scientifically invalid by its own developer, and thus it could only be used upon an objective showing of its validity for application to this project. Last, because the Denver is area is trying to avoid non-attainment status for ozone, the EIS must consider the impact of the precursors to ozone formation generated by the</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
AQ	80	4	Wyoming Outdoor Council	The scoping notice does not identify hazardous air pollutants as an important issue. The EIS should address emissions of hazardous air pollutants because oil and gas development leads to emissions of a number of these compounds in significant quantities.
AQ	80	5	Wyoming Outdoor Council	On September 21, 2006, EPA adopted a new NAAQS for PM2.5. http://www.epa.gov/pmdesignations/ The air quality analysis should recognize and ensure compliance with this new NAAQS.
AQ	80	6	Wyoming Outdoor Council	Because the Hiawatha Project will be built in both Colorado and Wyoming, there could be different air quality standards imposed by the different states. We request that BLM require the most stringent standard that may be applicable be adopted for the entire project, regardless of the state where the development is located. BLM has this authority. 43 U.S.C. 1712(c)(8) (BLM is given authority to "provide for compliance" with air quality standards). As a particular example, there may be some variation in the requirements for regulating ozone precursors (NO2 and VOC) established by Wyoming relative to Colorado, and BLM should adopt the most stringent requirements. Issues related to the differences between the two states are touched on in Exhibit 4 on pages 3-4, and we ask that they be considered.
AQ	80	7	Wyoming Outdoor Council	The EIS must provide an assessment of the amount of increment that will be consumed for various pollutants in this prevention of significant deterioration (PSD) area. In this respect, we ask that BLM determine how much increment has been consumed since the relevant baseline date, and how much additional increment it predicts will be consumed by the Hiawatha project. We specifically ask that BLM not add the predicted amounts of new pollution to background amounts and claim this provides a measure of increment consumption because background amounts have no relationship to how much increment has been consumed since the baseline date. Whether PSD increments will be consumed or are threatened to be exceeded is certainly a very significant environmental concern, and therefore must be considered in the EIS. AS EIS is invalid if it fails to consider the health effects of air pollution, and even a marginal degradation of air quality is environmentally significant. Public Citizens v. Department of Transp., 316 F.3d 1002, 1024 (9th Cir. 2000), rev'd on other grounds, 541 U.S. 752 (2004). We are not asking that BLM do a "regulatory" increment consumption analysis, but under the National Environmental Policy Act (NEPA), an EIS must consider all significant environmental issues, and this is certainly such an issue, being a Clean Air Act requirement. While BLM may not take any "regulatory" action based on this analysis, it still must consider and analyze this issue in the EIS to meet the requirements of NEPA.
AQ	80	8	Wyoming Outdoor Council	We also ask that BLM use appropriate "cutoff dates" for emissions inventories that will be used in this EIS. We have seen as number of BLM EISs where the cutoff date was several years prior to the publication of the draft EIS. The emissions inventory was ancient history. This must be avoided here, and an analysis based on the current status of emissions must be provided. We believe that appropriate cutoff date should be the publication date of the draft EIS, and if there is a substantial delay between publication of the draft EIS and the final EIS, the inventory must be updated.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
AQ	80	9	Wyoming Outdoor Council	The cumulative impacts analysis must fully consider all the various contributors to emissions in this area. This certainly includes a number of other oil and gas projects that are approved or in the process of being approved, including the Atlantic Rim project, Seminole Road project, Continental-Creston Project, Desolation Flats Project, Jonah Project, Pinedale Anticline Project, and the Moxa Arch Infill Project. BLM should not ignore these projects just because they may not have received final approval; they are all far enough along in the decision-making process (they are all formal proposals and EISs are actively being prepared) to be anything but "speculative." And together, they represent something like 20,000 to 25,000 wells, which is certainly a level of impact that cannot be ignored, even if these projects have not received absolute final approval. Likewise, the cumulative impacts in Rocky Mountain National Park due to the project and due to the contributions from Denver, and in the Denver area due to the contributions of the project and those from the
AQ	80	10	Wyoming Outdoor Council	As part of the record of decision in this matter, BLM must establish and ensure that there is full an adequate monitoring of air pollution from the Hiawatha Project. If BLM does not have the funding available to accomplish this, it should require that the operators fund and provide such monitoring. This is an entirely appropriate exercise of BLM's obligation to "provide for compliance" with the Clean Air Act, and is being required in other areas, such as the Pinedale Anticline and Jonah fields. Similarly, the EIS should fully consider and as necessary require that the rate of drilling in the Hiawatha Project be limited as necessary to protect air quality. This is an obvious way to reduce air quality impacts, and unlike other means to protect air quality, it is totally within BLM's authority – only BLM approves APDs (See Part III of these comments for further discussion of this issue). Furthermore, we request that BLM consider and as necessary adopt in the ROD requirements for flareless well completions, the use of Tier 2 compliant technology for drill rigs, and application of the Best Available Control Technology (BACT) on well equipment and infrastructure, with the most stringent state BACT being applied throughout the project area, regardless of the state the well is located in.
AQ	80	11	Wyoming Outdoor Council	Last, we ask that issues related to global warming be considered. We ask that there be an estimate of how much carbon dioxide will be emitted by this project, and consideration given to the implications of global warming in the project area itself and in this region on a cumulative basis. There is increasing evidence of the substantial impacts global warming is having on western forests, so this is a relevant issue that must be considered. Exhibits 5 and 6. Exhibit 5 shows that warming temperatures are strongly associated with increased wildfire risk, and Exhibit 6 shows warming temperatures are implicated in the increased prevalence of forest disease, both environmentally significant issues.
AQ	87	1	Individual	<p>The most obvious problem I've encountered with the extensive drilling taking place around Parachute and along the I-70 corridor is the DUST in the air. It is inconceivable to me that regulations do not require at least protection of air quality to a small extent. As a passerby in that area (who would want to live there now!?) I can't help but be angry that not only are these companies making money hand over fist, but they are degrading our environment seemingly without any regulation or oversight. This is the 21st century and we still disregard any serious considerations or attempts to preserve air quality or maintain habitats for wild animals.</p> <p>Please make all efforts to keep the number of wells to a minimum, the roads and other waste space to a minimum, the noise to a minimum and do your utmost the improve air quality and habitat for wild animals.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
BL	67	1	Individual	The citizen's proposed wilderness, the roadless areas, endangered/sensitive species, the watershed, the historic Cherokee Trail. Protect our public lands.
BL	68	1	Individual	The proposed plan would permit more than 4000 wells at a well-space density of up to 16 wells per square per mile. This high-density construction and the associated roads and pipelines is not a reasonable or responsible plan for development. It does not give any credence to the BLM's mission to protect its multiple resources. The BLM must have a plan that weighs resource extraction with the protection of wildlife habitat recreation opportunities (including opportunities for solitude), air quality, and cultural and historical resources.
BL	68	6	Individual	In a region where the population is growing and pressure is mounting from various user-groups, the BLM must view this land as more than simply 'common grazing land' and adequately review all of the uses.
BL	73	6	Biodiversity Conservation Alliance	The Preferred Alternative for the BLM's Roan Plateau FEIS, while a disappointing prescription for the sensitive landscapes it covers, offers the appropriate model for developing the non-sensitive portions of the Hiawatha project area. This alternative requires directional drilling and well clustering for a maximum surface density of 4 wellpads per square mile, the standard well spacing for Wyoming gas projects. Furthermore, it requires phased development the division of the project area into six production zones; the first zone must be fully reclaimed before Operators can begin development of the second zone, and so forth. This model, along with putting sensitive lands (citizens' proposed wilderness, sensitive wildlife habitats) off-limits to surface occupancy provides a satisfactory model for developing the Hiawatha play. As this is a fully reasonable (and indeed, the ideal) alternative for developing the Hiawatha play, we fully expect BLM to consider this
BL	73	8	Biodiversity Conservation Alliance	There are two key goals that must be achieved through this project: (1) the impacts of the drilling must be minimized; (2) the special places and sensitive wildlife habitats within the project area must receive strong, rather than token, protection.
BL	73	9	Biodiversity Conservation Alliance	The bottom line is that we believe that this project can move forward in a responsible manner that is compatible with BLM's stewardship responsibilities of BLM while yielding the operators all or most of the gas reserves underlying the project area. But this can only be accomplished if the BLM, for the first time, requires responsible drilling practices and well-designed project layout, instead of approving the cheap and dirty methods that might be most profitable to the
BL	73	42	Biodiversity Conservation Alliance	BLM must recognize Wilderness characteristics and other natural qualities as a valuable resources that provide multiple uses for the public. Multiple use of BLM and other public lands does not preclude wilderness designation or other protective designations for certain special areas. The concept of multiple use encompasses the entire public lands estate, not each and every individual unit. Some lands will be used for extracting resources, while others will produce the many benefits associated

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				with wilderness and wildlands. It is illogical to call oil and gas development "multiple use." It is essentially a single use, since most other uses are not compatible with such development.
BL	73	45	Biodiversity Conservation Alliance	<p>BLM has identified "wilderness characteristics" to include naturalness or providing opportunities for solitude or primitive recreation and provided for their continuing protection in land use planning. See, IM No. 2003-274, 2003-275; see also, IM AZ-2005-007. FLPMA also envisions protection of a multitude of uses and values on the public lands. These values should also be identified and protected in this EIS. The planning area is located near substantial lands with wilderness character and encompasses lands with other values. The BLM should recognize the wide range of values associated with these lands and take the potential impacts to these characteristics into account when making decisions for the Hiawatha Project:</p> <p>a. Scenic values – FLPMA specifically identifies "scenic values" as a resource of BLM lands for purposes of inventory and management (43 U.S.C. § 1711(a)), and the unspoiled landscapes of lands with wilderness characteristics generally provide spectacular viewing experiences. The scenic values of lands within the planning area will be severely compromised if destructive activities or other visual impairments are permitted. For example, air pollution from compressor stations include precursors to ozone, which when combined with the dust from truck traffic on roads can decrease visibility and hence scenic quality. Such impacts must be accounted for. It is also possible to model what the visual impacts to the landscape might be from drilling.</p> <p>b. Recreation – FLPMA also identifies "outdoor recreation" as a valuable resource to be inventoried and managed by BLM (43 U.S.C. § 1711(a)). Lands with wilderness characteristics provide opportunities for primitive recreation, such as hiking, camping, hunting and wildlife viewing. The Rock Springs and Little Snake Resource Areas both include a wide range of recreation opportunities. Most, if not all primitive recreation experiences will be foreclosed or severely impacted if the naturalness and quiet of these lands are not preserved. Impacts to primitive recreation will accrue both from the noise from gas facilities and the presence of motor vehicles (those servicing the natural gas drilling operations, as well as the motorized recreation which is likely to take advantage of the gas development roads). The proposed Hiawatha Project would ensure that almost the entire basin would be committed to full-field gas development, effectively precluding recreational opportunities.</p> <p>c. Wildlife habitat and riparian areas – FLPMA acknowledges the value of wildlife habitat found in public lands and recognizes habitat as an important use (43 U.S.C. § 1702(c)). Due to their unspoiled state, lands with wilderness characteristics provide valuable habitat for wildlife, thereby supporting additional resources and uses of the public lands. As part of their habitat, many species are also dependent on riparian and other wetland habitats, especially during either seasonal migrations or seasons and years when surrounding habitats are dry and unproductive. Wilderness quality lands support biodiversity, watershed protection and overall healthy ecosystems. The Rock Springs and Little Snake Resource Areas contain significant wildlife habitat in a region already burdened by oil and gas development. Oil and gas development has documented impacts on wildlife which extend beyond the immediate footprint of development. The network of well pads, roads and pipelines associated with such an enormous development will reduce and fragment the habitat over much of the project area.</p> <p>We refer BLM to the following reports on this issue prepared by The Wilderness Society, enclosed and available on-line:</p> <ol style="list-style-type: none">1) Fragmenting our Lands: The Ecological Footprint from Oil and Gas Development - http://www.wilderness.org/Library/Documents/upload/Energy-Footprint-Full-Report.pdf;2) Ecological Effects of a Transportation Network on Wildlife - http://www.wilderness.org/Library/Documents/upload/Missouri-Breaks-Transportation-Effects-full-report-w-o-covers.pdf;3) Protecting Northern Arizona's National Monuments: The Challenges of Transportation Management" - http://www.wilderness.org/Library/Documents/AZStripTransportation.cfm; <p>and</p> <ol style="list-style-type: none">4)"Wildlife at a Crossroads: Energy Development in Western Wyoming." – http://www.wilderness.org/Library/Documents/pinedale.cfm

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>The BLM must consider the value of the proposed development area for wildlife habitat, assess the potential impacts from this project and implement appropriate mitigation measures, as discussed in further detail in these reports.</p> <p>d. Cultural resources – FLPMA also recognizes the importance of “historical values” as part of the resources of the public lands to be protected (43 U.S.C. § 1702(c)). The lack of intensive human access and activity on lands with wilderness characteristics helps to protect these resources.</p> <p>e. Economic benefits – The recreation opportunities provided by wilderness quality lands also yield direct economic benefits to local communities. According to the U.S. Fish & Wildlife Service, in 2001, Wyoming and Colorado residents and non-residents spent \$2.6 billion on wildlife recreation in the two states. (USFWS 2001, National Survey of Hunting, Fishing and Wildlife-associated Recreation - http://www.census.gov/prod/www/abs/fishing.html). In addition, local communities that protect wildlands reap measurable benefits in terms of employment and personal income. A recent report by the Sonoran Institute (Rasker et al, 2004) found that: Protected lands have the greatest influence on economic growth in rural isolated counties that lack easy access to larger markets. From 1970 to 2000, real per capita income in isolated rural counties with protected land grew more than 60 percent faster than similar counties without any protected lands.</p> <p>These findings confirm earlier research, showing that wilderness is in fact beneficial for local economies. Residents of counties with wilderness cite wilderness as an important reason why they moved to the county, and long-term residents cite it as a reason they stay. Recent research also indicate that many firms decide to locate or stay in the West because of scenic amenities and wildlife-based recreation, both of which are strongly supported by wilderness areas (Beyers and Lindahl 1996, Deller et al. 2001, Johnson and Rasker, 1993 and 1995, Rasker and Glick 1994, Low 2004, Morton 2000).</p> <p>Other “non-market” economic values arise from the ability of wildlands to contribute to recreation and recreation-related jobs, scientific research, scenic viewsheds, biodiversity conservation, and watershed protection (Morton 1999, Loomis 2000, Pickton and Sikorowski 2004). All of these economic benefits are dependent upon adequate protection of the wilderness characteristics of the lands.</p> <p>f. Quality of life –Public wildlands help define the character of this area and are an important component of the quality of life for local residents and future generations. Their protection enables the customs and culture of this community to continue.</p> <p>g. Balanced use – The vast majority of BLM lands are open to oil and gas development. FLPMA recognizes that “multiple use” of the public lands requires “a combination of balanced and diverse resource uses” that includes recreation, watershed, wildlife, fish, and natural scenic and historical values (43 U.S.C. § 1702(c)). FLPMA also requires BLM to prepare land use plans that may limit certain uses in some areas (43 U.S.C. § 1712). Many other multiple uses of public lands are compatible with protection of wilderness characteristics – in fact, many are enhanced if not dependent on protection of wilderness qualities (such as primitive recreation and wildlife habitat). Protection of wilderness</p>
BL	75	6	Sweetwater County Planning Department	<p>Protection of Unique Natural Features: The Sweetwater County Comprehensive Plan - 2002 calls for Sweetwater County to: "Encourage a balance between resource development and environmental protection" and to "Identify and protect the County's unique cultural, recreational, environmental and historical resources." In consideration of these policies, the Sweetwater County Planning Department supports efforts by Questar and the BLM to ensure gas field development occurs in a manner which meets the above stated Sweetwater County goals.</p>
BL	75	15	Sweetwater County Planning Department	<p>Enforcement: Sweetwater County strongly encourages the BLM to commit the necessary monetary and staff resources to ensure that the Hiawatha project is implemented in a manner that complies with the final EIS.</p>
BL	80	18	Wyoming Outdoor	<p>We request that BLM consider the relationships and interactions between terms in BLM's standard lease form (especially</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #		Comment Text
			Wyoming Outdoor Council	<p>section 6) and its regulation at 43 C.F.R. § 3101.1-2. We request that BLM address the provision in the standard lease form and the regulation stating that the “reasonable measures” BLM can require include certain measures “but are not limited to” those measures. Similarly, we request that BLM address the language in the regulation stating that “at a minimum” certain reasonable measures are consistent with the lease rights granted. It is our view that BLM has retained substantial rights to condition oil and gas exploration and development activities, and that view is supported by the language in both the standard lease form and in the regulation.</p> <p>Under the standard lease form, the intent is to “minimize” environmental impacts, and BLM is given the right to require reasonable measures that are deemed necessary to meet the “intent” of minimizing impacts, but those measures “are not limited to” modifications of siting, design, or timing of operations, or the specification of reclamation measures, and the specified reasonable measures that are deemed consistent with the lease rights granted are “at a minimum” of BLM authority. And overlying all of this is the obligation to prevent unnecessary or undue degradation of the public lands pursuant to FLPMA, 43 U.S.C. § 1732(b), which is clearly a nondiscretionary statutory command, which under the regulation gives BLM continued complete authority to regulate development.</p> <p>Consequently, we ask that BLM discuss in the EIS and provide as ROD decisions the other reasonable measures it will impose on the Hiawatha Project that are consistent with lease rights. It is our view that BLM has far more retained rights to condition development than it typically claims. But under the mandates and intent of numerous statutes (the Federal Land Policy and Management Act, NEPA, Endangered Species Act, Clean Air Act, Clean Water Act, etc., etc.), we believe BLM has a responsibility to assert that it has the maximum retained rights possible, and additionally under these statutes BLM must use this retained authority to maximize environmental protection.</p>
BL	80	21	Wyoming Outdoor Council	<p>Last, BLM must carefully discuss whether and when it might seek to invoke a categorical exclusion pursuant to the Energy Policy Act of 2005 (EPAAct) for Applications for Permit to Drill (APD) that might be processed in the future. To the extent there will be no future NEPA compliance, and a categorical exclusion invoked, that compliance must be provided, in detail at a site-specific level, in the Hiawatha Project EIS.</p> <p>Additionally, if one of the five categorical exclusions established in the EPAAct is used in the future to approve a well, BLM should recognize in the Hiawatha EIS that it has continuing obligations and commit to meeting those obligations in the Hiawatha Project ROD. The EPAAct is explicit that its categorical exclusion provisions apply “if the activity is conducted pursuant to the Mineral Leasing Act for the purpose of exploration or development of oil and gas.” 42 U.S.C. § 15942. Thus, if BLM invokes these categorical exclusions from NEPA compliance, it is also acknowledging that it must comply with the Mineral Leasing Act. 30 U.S.C. § 181 et seq. The EIS should recognize this.</p> <p>Section 17(g) of the Mineral Leasing Act sets out important provisions that BLM must abide by in approving oil and gas wells. 30 U.S.C. § 226(g). “No permit to drill on an oil and gas lease...may be granted without the analysis and approval by the Secretary concerned of a plan of operations covering proposed surface-disturbing activities within the lease area.” Id. (emphasis added). Prior to approving an APD BLM must engage in an analysis of the surface-disturbing activities that would occur under the proposed plan of operations and “regulate” those surface disturbing activities as needed “in the interest of conservation of surface resources.” Id. In order to accomplish the “analysis” that is required by the Mineral Leasing Act to ensure that a plan of operations is in place to “regulate all surface-disturbing activities...in the interest of conservation of surface resources,” we believe the BLM will have to consider the alternative we presented above, and we ask that it do so.</p> <p>In addition to requiring the above analysis, the Mineral Leasing Act, pursuant to which any categorical exclusion under the EPAAct would be pursued, also requires BLM to ensure the “complete and timely reclamation of the lease tract.” 30 U.S.C. 226(g) (emphasis added). We request that BLM document that this will indeed be the case. Moreover, the BLM should follow the detailed guidance on reclamation in its Gold Book.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Organization	Comment Text
BL	83	2	Oil and Gas Association	Balancing Multiple Uses Under the FLPMA: Nearly one-third of the United States is owned in common by its citizens, but is managed by BLM for divergent purposes -- including conservation of natural resources, recreation, resource extraction, and grazing. The Federal Land Policy and Management Act of 1976 (FLPMA) directs land managers to promote multiple uses of federal lands in a manner that will ensure sustained yields from natural resources. The FLPMA requires land managers to balance the needs of the American public for open space and preservation, but also for natural resources that maintain and improve our quality of life. Multiple use management is a complicated task, requiring BLM to strike a balance among many competing uses in order to sustain the health, diversity, and productivity, of the public lands for the use and enjoyment of present and future
BL	91	8	Vermillion Ranch Limited Partnership	The scope of the project and the significant issues require BLM to use the newer data and studies. VRLP has common interests with BLM and the project proponent in understanding vegetation and wildlife dynamics. VRLP, in cooperation with BLM, has been doing extensive monitoring of range conditions in all of its allotments. VRLP is also cooperating with Colorado Division of Wildlife (CDOW) study of sage grouse in the project area. VRLP urges the BLM to use the most recent data developed by CDOW and VRLP and to take advantage of ongoing studies and vegetation treatments being funded by NRCS and other agencies. For
BL	91	33	Vermillion Ranch Limited Partnership	The decision should also adopt an project implementation and monitoring program that would include the cooperators. The multi-jurisdictional scope of the project and the issues support a monitoring and implementation phase that would involve the local agencies. First, there will need to be continued coordination on transportation and construction matters that occur in the respective counties. Second, there could be a number of changes in mitigation and status of wildlife that will also affect the project and the resource decisions made. Finally, monitoring will allow for course changes if some
BL	93	28	Sweetwater County and Sweetwater County Conservation District	BLM states that it may be necessary to amend the Green River RMP to address the additional surface disturbance included in the project. This does not make sense. The purpose of the EIS is to analyze the surface disturbance and the environmental effects. The fact that these impacts were not discussed in the RMP FEIS is irrelevant, when a second EIS is being written.
BL	93	38	Sweetwater County and Sweetwater County Conservation District	The decision should also adopt an project implementation and monitoring program that would include the cooperators for the implementation phase. The multi-jurisdictional scope of the project and the issues support a monitoring and implementation working group. First, there will need to be continued coordination on transportation and construction matters that occur in the respective counties. Second, there could be a number of changes in mitigation and status of wildlife that will also affect the project and the resource decisions made. Finally, monitoring will allow for changes if some

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
BL	95	1	Moffat County	As promised during the Cooperators Meeting this week, I am forwarding you the Habitat Fragmentation Proposal for consideration in the Hiawatha EIS. This is the same language that BLM Little Snake will be considering in the Little Snake RMP. Moffat County commented at the Craig Scoping Meeting that the earlier version of this proposal be brought forward in the scoping document. Since the proposal has been refined, as the attachment so reflects, please consider this email a formal comment from Moffat County requesting this proposal be incorporated in the Hiawatha EIS and that it be reflected in the Scoping Summary. Due to differences in leasing scenarios between the Little Snake RMP and the Hiawatha EIS, Moffat County suggests the Rock Springs field office and Cooperating Agencies discuss the pros and cons of amending the attached proposal to be mandatory rather than voluntary. This proposal was referenced by the Sweetwater County Commissioners and Sweetwater County Conservation District among other issues in their formal comments. Please consider this email an endorsement of the comments submitted by Sweetwater County and the
BM	62	5	Rock Springs Chamber of Commere	A comprehensive reclamation plan needs to be in place and monitored.
BM	66	2	RMEF	Require adequate bond money to ensure 100% company compliance with short-term and end-of-life reclamation. Today well reclamation may cost eg \$50k per well, times 4000 wells, equals \$200 million. Require that amount up front and place in interest-bearing U.S. Treasuries at currently about 5%. That inflation would be covered. In 60 years, amount to rehab area would be available about \$1.6 billion, which might be enough.
BM	68	4	Individual	Measures including directional drilling and other Best Management Practices must be included in the plan.
BM	71	4	Individual	The Hiawatha project targets tight shale formations that require hydraulic fracturing and possibly a high density of wellbores traveling through the reservoir rock, but these layouts do not require a high density of surface installations if diractional "S-turn"wells are used. The effectiveness of directional drilling has been proved for these types of situations throughout the region, and BLM must require the use of this Best Management Practice for the Hiawatha Project.
BM	73	36	Biodiversity Conservation Alliance	<p>BLM Must Analyze a Range of Possible Mitigation Measures, Including Effective Ones</p> <p>The failure to look at the full range of reasonable alternatives is related to BLM's duty in any EIS to develop, study, analyze and adopt mitigation measures to protect other resources. The ability to adopt post-leasing mitigation measures – see 43 C.F.R. § 3101.1-2 – is quite broad, as all reasonable measures not inconsistent with a given lease may be imposed by BLM. This is particularly true given that BLM, pursuant to FLPMA, must manage public lands in a manner that does not cause either “undue” or “unnecessary” degradation. 43 U.S.C. § 1732(b). Put simply, the failure of BLM to study and adopt these types of mitigation measures – especially when feasible and economic – means that the agency is proposing to allow this project to go forward with unnecessary impacts to public lands, in violation of FLPMA.</p> <p>Some examples of effectual mitigation measures which represent reasonable alternatives and which therefore must be evaluated in detail in the forthcoming EIS include:</p> <p>Ø Designing the surface placement of roads, wells, and tall structures to avoid the areas on or within 3 miles of known sage grouse leks;</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<ul style="list-style-type: none"> Ø Designing the surface placement of roads, wells, and tall structures to avoid the areas on or within ¼ mile of prairie dog colonies; Ø Designing the surface placement of roads, wells, and tall structures to avoid the areas on or within ½ mile of raptor nests, and on or within 1 mile of ferruginous hawk nests; Ø Requiring "green completions" that forbid the use of pit flaring; Ø Requiring closed-loop drilling, which reduces the surface footprint of individual wellpads; Ø Requiring that wells and roads be sited outside the viewshed of the Cherokee Trail; Ø Requiring that all surface-disturbing activities be site cleared by a professional paleontologist and by a professional archaeologist prior to commencement of activities; Ø Setting a maximum well density that prevents new wellpad construction within 3 miles of other existing or proposed wellpads (this is readily achievable through various directional well designs of the operator's choice); Ø Requiring the underground injection of all coalbed methane produced water, if applicable; Ø Requiring that pipeline rights-of-way be brush-hogged rather than bladed to reduce impacts to native vegetation; Ø Requiring the use of electric – or natural gas – powered (or other low-pollution) drilling rigs to protect air quality; Ø Identifying and setting aside important scenic and undeveloped areas (including the Kinney Rim citizens' proposed wilderness units) within the project area so that the public has a few unimpaired lands left to visit after this project is underway. <p>We specifically request that BLM analyze in detail and adopt each of these proposed mitigation measures for the Hiawatha project.</p> <p>In the past, the BLM has analyzed only a single suite of ineffectual mitigation measure to protect a given sensitive resource, and the agency has failed to provide any analysis of its effectiveness. For example, the BLM's proposal to mitigate for impacts to sage grouse leks with a No Surface Occupancy (NSO) buffer of only ¼ mile, rather than the 2-3 mile buffer that is supported in the scientific literature; the BLM's maximum of a ¼ - mile NSO buffer for the Cherokee Trail, without considering a much larger (3-5 mile) buffer that would protect the trail's viewshed and setting; and the BLM's maximum NSO buffer of only 1,250 feet for raptor nests, when studies indicate that a buffer of ¼ mile to 2 miles is warranted, all in the Desolation Flats EIS.</p>
BM	73	126	Biodiversity Conservation Alliance	<p>Reclamation</p> <p>We are concerned that many of the scars that occur under the project could take decades to heal even after reclamation efforts, and that some of these impacts may never disappear. What is the expected rate of success for reclamation in the project area? Wells in this area, operated by the same actors who are the proponents of this new project, have repeatedly failed to reclaim wellpads back to smaller sizes for years following completion, in violation of their original requirements. In light of this fact, what is the expected compliance rate for reclamation?</p>
BM	73	127	Biodiversity Conservation Alliance	<p>In addition, native seed mixes, including sagebrush, should be required. What is the success rate of sagebrush establishment from seed in the project area? If sagebrush recruitment from seed stock is poor in this area, then the planting of sagebrush seedlings should be required to restore the natural, pre-disturbance distribution and mosaic of</p>
BM	74	16	United States Environmental Protection Agency, Region 8	<p>Equipment and materials should not be placed or stored in any environmentally sensitive areas. Where possible, excavation should be done from non-sensitive areas. Site preparation and construction activities should be timed to avoid disturbing plants and animals during crucial seasons in their life cycle. Appropriate project specific BMPs should</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
BM	74	26	United States Environmental Protection Agency, Region 8	With oil and gas projects and related activities there are many activities requiring management, mitigation, and monitoring of construction and operational project impacts, as well as reclamation status and effectiveness. Proper BMP and other mitigation measures implementation and maintenance are very important, and various impacts can be minimized or potentially eliminated if BMPs and other mitigation measures are properly implemented. Details should be provided for accomplishing these activities in the EIS. Also, it is important to specifically designate what entity (e.g., the BLM, the proponents, resource organizations, or some combination) will be in charge of which activities, and which will have specific enforceable accountability. In addition, the BMPs, mitigation measures and other related activities require inspection, documentation and record keeping. A "paper" documentation trail must exist to determine what was monitored, inspected, maintained, and completed. All management, mitigation, and monitoring should be verifiable, and an agency/entity needs to be held accountable for performance oversight, throughout the entire project construction and operating life. It may be appropriate the proponents to find an account from which 3rd party contractors can be contracted to perform inspections and monitoring, and/or the implementation of some of the mitigation measures. Please provide details on the issues discussed above in the EIS, preferably in a separate monitoring plan. It may be appropriate to have commitment for these activities placed in the ROD.
BM	75	13	Sweetwater County Planning Department	Disturbance and Reclamation: The Sweetwater County Comprehensive Plan -2002 encourages and supports environmentally responsible resource exploration/development within the region. With this goal in mind, Sweetwater County encourages Questar to utilize field development techniques that minimize disturbance and accelerate reclamation. Reclamation seed mixes should consider wildlife and noxious weed control.
BM	79	5	Environmental Protection Foundation	EPF is concerned about the single approach to rehabilitation proposed for this project; reseeding. We are concerned about the possibility of failure of the efforts. What happens if the attempts to reseed fail? What other options are available? Examples of other options might include, but not necessarily be limited to, improvements to existing or
BM	80	19	Wyoming Outdoor Council	Pursuant to this high level of retained rights, we believe that BLM should adopt the following as conditions of well approval in the Hiawatha Project area in order to maximize environmental protection, and we ask that BLM consider these requirements as an alternative in the EIS and to in fact adopt them in the ROD: 1. Construction of wells will not exceed a well density that would cause unnecessary or undue degradation of the public lands when also considering the cumulative effect of all other existing sources of disturbance in the area; provided, however, that if such a density would be exceeded the well may be permitted if it can be drilled directionally from an existing well pad (see element 2). 2. Wells will be drilled directionally from an existing well pad or similarly disturbed area. This element does not apply if BLM determines the distance from an existing well pad or similarly disturbed area exceeds that which can be drilled using the best available technology. 3. Existing roads will be utilized for access to well sites to the maximum extent possible, and road construction will be minimized to the maximum extent possible. BLM will determine whether it is environmentally appropriate or desirable to require construction of any roads to the levels and specifications in guidance such as the "Gold Book" and will consider options for lesser levels of roads as also provided in the Gold Book. 4. All powerlines, pipelines and other facilities will be located on existing rights-of-way to the maximum extent possible and such infrastructure will be buried underground to the maximum extent possible, unless BLM determines that burying infrastructure would cause greater environmental impacts than above-ground infrastructure. In all cases, anti-perching devices and construction techniques will be required to the maximum extent possible for all above ground structures. 5. "Closed-loop" drilling fluid systems, with no reserve pit permitted, will be required to the maximum extent possible. Non-toxic drilling and fracking fluids will be required to the maximum extent possible. If fluids are generated or used during well drilling they will be disposed of off-site at a licensed facility, with the exception of produced water, which to the

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
		Org.	<p>maximum extent possible will be disposed of by reinjection into the same formation from which the water was withdrawn, or into a formation that is as near as is possible to having the same characteristics as the source formation. Evaporation of drilling fluids and surface disposal of drilling residues following evaporation will not be allowed. During well drilling and the time any fluids remain in holding ponds the ponds will be covered with netting to prevent bird mortality. Any holding ponds necessary during drilling will be lined.</p> <p>6. No flaring will be allowed except in emergency situations where necessary to protect health and safety. All dirt roads will have dust suppression actions required. Electric compressors or muffled clean-diesel or natural gas compressors will be required to the maximum extent possible. The BACT to regulate air pollutants will be required to the maximum extent possible for compressors, dehydrators, and other sources of air pollution. Car pooling to and from the well site will be required to the maximum extent possible, including at every scheduled crew change during drilling.</p> <p>7. The BLM will fully utilize its authority to ensure and require that bonding is sufficient to ensure reclamation and compliance with all lease terms, stipulations, and conditions of approval before permitting the well. BLM will make determinations and increase bonds as needed to meet the requirements at 43 C.F.R. § 3104.5, and in particular will determine if the "total cost of plugging existing wells and reclaiming lands exceeds the present bond amount based on the estimates determined by the authorized officer." 43 C.F.R. § 3104.5(b). BLM will fully comply with Instruction Memorandum (IM) 2006-206.</p> <p>Monitoring to ensure reclamation is successful will be required. Reclamation will be initiated as soon as is possible and as much of the area disturbed by well drilling and operations will be reclaimed as is possible at the earliest possible time. Initiation of reclamation will not be postponed until when operations cease. Bonds will not be released until successful reclamation has been demonstrated.</p> <p>Full compliance with Executive Order No. 13112 (dealing with invasive species) will be determined and required. Any trucks or other equipment used at the drill site will be required to have been cleaned to ensure weeds are not transported onto the site.</p> <p>If the well site is in sagebrush habitat, reclamation to sagebrush habitat in a reasonable amount of time will be required in the reclamation plan, including but not limited to requiring the use of containerized stock or other methods to increase the rate and success of establishment of sagebrush, and so as to meet the requirement to ensure "timely" reclamation established by the Mineral Leasing Act. 30 U.S.C. § 226(g). This provision will apply to intermediate reclamation actions as well as to final reclamation following cessation of operations.</p> <p>8. Ongoing operations will be conditioned such that the minimum amount of disturbance occurs. Remote monitoring of well operations and conditions will be required to the maximum extent possible. Oil and gas will be removed from the site by pipeline and not by truck to the maximum extent possible; if such is not possible, removal of petroleum products will be done by means that require the minimum possible amount of ongoing disturbance. Noise from ongoing operations will be minimized to the maximum extent possible.</p> <p>9. The visual impacts of both well drilling and the completed well and its infrastructure will be minimized to the maximum extent possible. This will be achieved by, among other things, requiring the lowest profile structures possible, use of natural topography and terrain to the maximum extent possible to reduce visual impacts, avoidance to the maximum extent possible of terrain and topography where visual impacts would be extreme (such as ridgelines), and requirements to use appropriate coloration.</p> <p>10. Lighting, both during drilling and for ongoing operations, will be minimized to the maximum extent possible and legally permissible within BLM's authority, and the use of techniques to reduce the impacts of lighting (shading or redirection of light) shall be required to the maximum extent possible, again to the extent legally permissible within BLM's authority.</p> <p>11. The minimum possible well pad size will be determined, both for initial drilling and for ongoing operations, and this size pad will be required to the maximum extent possible, considering other relevant elements of this alternative, such as piping hydrocarbons away from the well site rather than trucking them away.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>12. The surface use plan of operations shall require compliance with and incorporate by reference of all applicable water pollution control requirements and permits of the Environmental Protection Agency, the State of Wyoming, and the State of Colorado, including any permits for the control of stormwater discharges.</p> <p>13. All normal conditions or attributes of well approval, such as adherence to stipulations, adherence to various protections for wildlife (e.g., no drilling in crucial big game winter ranges from November 15 through April 15), acceptable 13 point surface use plans, provisions for adequate inspection and enforcement, etc., shall be part of this alternative and required as part of the conditions of approval.</p> <p>14. BLM will consider and adopt the Best Management Practices shown at http://blm.gov/nhp/300/wo310/O&G/Ops/operations.html to the maximum extent possible. It will fully comply with Instruction Memorandum 2004-194.</p> <p>For purposes of this alternative and wells drilled pursuant to it, the term "Maximum extent possible" will mean and be determined as follows:</p> <p>a. BLM will determine the level of authority retained to it to condition development of the well pursuant to the applicable leave provisions and stipulations, 43 C.F.R. § 3101.1-2, 43 U.S.C. § 1732(b), and other relevant law (see discussion above at the beginning of section III). This determination will be documented and made public.</p> <p>b. If BLM determines that it retains complete authority to condition development, BLM will require all elements of this alternative to be implemented using the best available technology to prevent unnecessary or undue degradation of the public lands.</p> <p>c. If BLM determines that the lessee has been granted a property or contractual right that limits the ability of BLM to condition development, BLM will determine the extent of the limitations on its authority and require all elements of this alternative to be implemented using the best available technology that still allows the lessee to obtain a "reasonable profit" from its operations in the Hiawatha Project Area as a whole and consistent with the extent of the lessee's rights and BLM retained authority and its duty to prevent unnecessary or undue degradation of the public lands. See 43 C.F.R. § 3162.2-5 (presenting the concept of "reasonable profits" as a BLM-approved standard).</p> <p>For the requirement that "complete" reclamation be achieved, BLM should require the restoration of the native plant community in terms of plant species composition, structure, and ecological function. This is what will be required for the reclamation to be "complete." In that regard, we believe there should be at least two requirements established by the Hiawatha Project EIS and ROD: the use of containerized (i.e., already-started) stock (especially shrubs) coupled with the use of supplemental water (irrigation). Additionally, if the reclamation is to be complete in the sense of having the same ecological function as the original plant community, as required by the Gold Book, locally adapted genotypes of the plants will need to be used. Quite simply, unless there is assurance of restoration of native shrub communities there is no assurance of either complete or timely reclamation because these shrubs (especially sagebrush) are widely understood to be "keystone" species that affect and control the proper functioning of this entire ecological community.</p>
BM	80	22	Wyoming Outdoor Council	
BM	80	23	Wyoming Outdoor Council	<p>In addition, when invoking one of the EPA categorical exclusions, BLM must nevertheless "apply appropriate mitigation and BMPs to all permitted actions..." IM 2005-247 at 2. The effect of this provision is clearly to require that the provisions in IM 2004-194 must continue to be adhered to. That IM requires that BLM "shall incorporate appropriate BMPs into proposed APDs..." IM 2004-194 at 1. The BLM should recognize this and so provide in the ROD.</p>
BM	84	6	Wyoming	<p>Within the last few years, reclamation and weed control in Wyoming by energy developers has often been non-timely and</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Organization	Comment Text
			Department of Agriculture	<p>unsuccessful. Moreover, other energy development EISs have specified few, if any, enforcement mechanisms and set few, if any, consequences for poor or failed reclamation, weed control, and mitigation. Yet, timely and successful reclamation, weed control, and mitigation are needed and should be required. Both on-site and off-site mitigation should be considered. The EIS needs to include reclamation, weed control, and mitigation requirements and the consequences</p> <p>for energy operators failing to accomplish this reclamation, weed control, and mitigation. Given the poor reclamation, weed control, and mitigation performance by several energy operators and their tendency to disregard BLM's suggestions with few or no consequences, the EIS needs to reflect BLM's reinforced recommendations, requirements, repercussions, and resolve regarding reclamation, monitoring, and mitigation.</p>
BM	85	14	Colorado Division of Wildlife	<p>Best management practices should be implemented automatically. They should not take place of mitigation, but they should be applied to this project as standards. These practices should be used to protect wildlife and habitat. The DOW supports and recommends that the following BMP's be standard in oil/gas development in the Hiawatha area:</p> <ul style="list-style-type: none"> Interim Reclamation Three Phased Gathering Pipelines Multi-Well Pads Noise Control (Mufflers) Travel Management Remote Monitoring Clustered Development Phased Development Complete Wildlife Exclusion from Reserve Pits Centralized Production Facilities Placement of Utilities, Including Pipeline Corridors on or Next to Existing Roads
BM	85	15	Colorado Division of Wildlife	<p>Reclamation should focus on returning disturbed areas to productive winter range as quickly as possible after disturbance, with emphasis on establishing an herbaceous mix high in forbs and utilizing native grasses, including bunch grasses. Aggressive, non-native grasses, including crested wheatgrass, smooth brome, intermediate wheatgrass and pubescent wheatgrass should not be used for reclamation in this area.</p> <p>Woody shrubs for pronghorn and mule deer browse and sage-grouse nesting habitat are another critical part of effective big game winter range and sage-grouse habitat. At least 20% of disturbed areas should receive enhanced reclamation effort focused on rapid re-establishment of native woody browse species appropriate for pronghorn and mule deer winter range and other associated seasonal habitats, with particular focus on re-establishment of black sagebrush, Wyoming big sagebrush, or salt desert shrub stands in the area appropriate to the site. Within these shrub establishment areas, the performance based objective should be to establish sufficient shrubs that canopy cover of desirable shrubs reaches 15-20% at maturity. Woody browse should be re-established by seeding or transplanting of live materials. If seeded, woody shrubs will likely need to be applied separately and in geographically separate portions of the reclamation area to minimize competition from more aggressive species and thereby optimize their establishment.</p>
BM	85	16	Colorado Division of Wildlife	<p>Evaluation and monitoring of reclamation efforts should be required. Reclamation requirements need to be performance based rather than prescriptive (i.e. the operator will reclaim disturbed ground to achieve "x" % cover, versus operator will broadcast a certain amount of pounds of a required seed mix). Reclamation success should be monitored and</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				evaluated with a standard methodology. The goals of the reclamation should be clearly defined with regard to time frame, vegetative cover objectives, soil protection, and wildlife forage.
BM	85	17	Colorado Division of Wildlife	Interim reclamation should also be a requirement of operators and should be done as quickly as possible. Early interim reclamation, involving re-contouring surface disturbances up to the rig anchors early in the reclamation process is recommended. Production facilities should be located where service roads enter the pad allowing the far side of the pad to be reclaimed as soon as the drilling process is completed. This practice would help create some habitat before the final reclamation is implemented. Seed mixes that are beneficial to wildlife with a suitable mix of native
BM	85	18	Colorado Division of Wildlife	Situations may arise in which top soil must be stockpiled for storage. Native seed should be sown on stored topsoil, and piles should be kept at a depth of four feet or less. This practice will maintain the microorganisms and nutrient cycling of the soil and improve reclamation efforts when the topsoil is redistributed.
BM	85	19	Colorado Division of Wildlife	The proposed location lies in an area where native vegetation provides foraging, nesting, brooding, and cover habitats for numerous species of wildlife. The project area is arid and characterized by difficult, often saline, soils, making effective reclamation slow and uncertain. The removal and disturbance of native vegetation will negatively impact the native wildlife species associated with this project area. Upon rehabilitation of disturbed locations, negative impacts to wildlife can be offset by planting a suitable mixture of native grass/forb/shrub seed. Seed plantings on disturbed soils will have greater germination and survival rates when the soil surface has been prepared to hold moisture and runoff precipitation. Soils will exhibit increased moisture retention capabilities when the soil surface has been loosened with a "ripping tool" that creates a rough and uneven soil surface and seed bed. This treatment will increase seed germination, and will reduce the amount of surface runoff and soil erosion. On sites with terrain that permits the use of timber pads laid over native vegetation at drill sites will improve the effectiveness of reclamation efforts.
BM	85	20	Colorado Division of Wildlife	The invasion of non-native weeds reduces the density of native vegetation and lessens the habitat values for native wildlife species. Many of these non-native weeds are not used as forage by wildlife. Significant portions of the project area already have substantial weed issues resulting from previous gas development and other causes. Halogeton and cheatgrass are particular weeds of concern in the project area. The continual monitoring and control of non-native weeds on the disturbed/rehabilitated sites of these projects will help restore native vegetation that is valuable to wildlife. Undesirable weed infestation can be reduced through minimizing the amount of surface disturbance, early and effective reclamation, weed control and by requiring that vehicles and equipment be thoroughly washed regularly.
BM	91	15	Vermillion Ranch Limited Partnership	In the project area, BLM should permit seeding with a combination of native and desirable non-native plant species. Often non-native plants take hold more readily, while providing forage, habitat and erosion control. They can prevent or reduce noxious weed invasions and allow the slower growing native plants to more time to become established.
BM	91	28	Vermillion Ranch Limited Partnership	VRLP is concerned that there is pressure to avoid sage brush sites and thus drill sites will be placed on salt sage flats to avoid sage brush. These flat areas may be suitable for the use of portable mat systems to reduce the loss of vegetation, dust, and visual impacts at the well pad site. Much of the area consists of salt sage flats growing in a cold mountain desert. Reclamation takes longer to occur and it is difficult in the first instance to get native plants to grow once the land

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				has been excavated. The use of drilling mat systems at the drill site could reduce the amount of lost vegetation significantly and the cost should be relatively minor when compared to the higher costs of reclamation failure or delays.
BM	93	3	Sweetwater County and Sweetwater County Conservation District	SWCCD and SWC support the use and acquisition of sound and up-to-date base line data. This region is a difficult reclamation environment, especially if the objective is to return the vegetation to the current condition. The EIS must clearly articulate decisions for replacement vegetation and the respective seralstages. These decisions will depend on sound data regarding the existing habitat condition, vegetation, and soils. Reclamation and mitigation must be planned on a landscape basis rather than site by site.
BM	93	14	Sweetwater County and Sweetwater County Conservation District	It is expected that there will be pressure to move the project construction to the salt sage flats to avoid sagebrush habitat. SWC and SWCCD believe that the landscape reclamation is better served by placing construction in sagebrush habitat, because it is not currently functioning properly in many locations, it is easierto reclaim or regenerate sagebrush, and operators have gained sound experience with sagebrush habitat reclamation. Finally, this would avoid more difficult
BM	93	15	Sweetwater County and Sweetwater County Conservation District	Siting of construction should consider habitat condition and the ability to reclaim the vegetation. It makes more sense to reclaim fair or poor sagebrush habitat than salt sage brush habitat.
BM	93	16	Sweetwater County and Sweetwater County Conservation District	If construction is concentrated in salt sage flats, there will be greater adverse environmental impacts by increasing reclamation times, removing native vegetation, and disproportionately affecting livestock grazing operations and wildlife that prefer salt sage habitat. Revegetation takes much longer on the salt sage flats. The project area is classified as a cool mountain desert, where the lack of water, cold temperatures, and high altitude make reclamation more challenging. If all or most construction is pushed to the salt sage areas, halogeton and noxious weeds will replace slower growing native vegetation, thus destroying rangelands and forage values for livestock and wildlife.
BM	93	17	Sweetwater County and Sweetwater County Conservation District	In the project area, BLM should permit seeding with desirable non-native as well as native plant species. The non-native plants take hold more readily, while providing forage, habitat, and erosion control. They would prevent or reduce noxious weed invasions and allow the slower growing native plants to come in as well.
BM	93	34	Sweetwater County and Sweetwater County Conservation District	SWC and SWCCD foresee a risk that drill sites will be sited on salt sage flats to avoid sage brush habitat. These flat areas may be suitable for the use of portable mat systems to reduce the loss of vegetation, dust, and visual impacts at the well pad site. Much of the area consists of salt sage flats growing in a cold mountain desert. Reclamation takes longer to occur and it is difficult in the first instance to get native plants to grow once the land has been excavated. The use of drilling mat systems at the drill site could reduce the amount of lost vegetation significantly and the cost should be relatively minor compared to the cost of reestablishing salt sage and other expensive and difficult to grow

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
CU	64	1	Colorado Historical Society	<p>vegetation.</p> <p>In order to determine the effect of the proposed project on historic properties, we recommend that you coordinate your National Environmental Policy Act (NEPA) studies with the cultural resource studies required under Section 106 of the National Historic Preservation Act (NHPA). According to 36 CRF 800.8, "Federal agencies are encouraged to coordinate compliance with Section 106 and the procedures in this part with any steps taken to meet the requirements of the National Environmental Policy Act." Also, Section 110 of the National Historic Preservation Act states that Federal agencies should "coordinate with the earliest phases of any environmental review carried out under the National Environmental Policy Act."</p>
CU	64	2	Colorado Historical Society	<p>The findings from the Section 106 studies can inform the NEPA studies, such as including mitigation measures identified under Section 106 into the NEPA decision document. Once we receive the Section 106 studies, we will be able to fully complete our reviews under both Section 106 and NEPA.</p>
CU	64	3	Colorado Historical Society	<p>Previous inventories conducted in the vicinity of the project area have identified properties which may be eligible for the National Register of Historic Places (NRHP). In addition, properties which are eligible for the NRHP may be present within that portion of the proposed project area which has not been inventoried for cultural resources.</p>
CU	69	4	Individual	<p>This absurd project should not even be considered until the BLM takes into account the following factors. 3. Prohibiting all roads and wells within two miles of the Cherokee Trail or keeping intrusions completely hidden from view</p>
CU	70	1	Alliance for Historic Wyoming	<p>The Alliance represents several hundred concerned citizens throughout our state and across the nation concerned with preserving Wyoming's unique historic and cultural resources. Therefore, we request that the Alliance for Historic Wyoming be considered an interested party for the purposes of Section 106 consultation. In addition, we are interested in being included in the examination of the setting of the historic trails through the Canyon Creek area which we understand</p>
CU	70	2	Alliance for Historic Wyoming	<p>In reviewing the scoping notice, we are gratified to see that special notice has been given to the need for the EIS to address potential impacts of this proposal on the area's cultural and historic resources, including the interpretation of these resources and their potential value as educational opportunities. Although the scoping notice does reference general recreational opportunities, we note that it does not specifically mention these in relationship to the area's cultural properties. With heritage tourism representing the fastest growing aspect of the tourism industry, we would hope you will examine the specific recreational opportunities offered by the Cherokee Trail. These resources, largely untapped to date, offer a tremendous opportunity for the public to explore a world largely forgotten in the hustle and bustle of our current lifestyle. With appropriate interpretation and access, the Cherokee Trail in this area offers a wonderful opportunity for future generations to learn from the past and better understand the hardships endured by those who settled this great</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
CU	70	3	Alliance for Historic Wyoming	We would also call your attention to the need to study the ways in which this kind of large-scale drilling can disrupt the enjoyment of these historic trails, not just through actual disturbance of the involved sites but by creating visual and auditory intrusions into the setting of these historic trails. These unwanted intrusions can result from poorly sited facilities that intrude on the trail's visual setting, from degradation of the region's air and visual quality, and from auditory intrusions from nearby heavy machinery. We trust that, during the EIS process, all of these factors will be thoroughly considered in weighing the impacts that such development might have on the area's historic resources.
CU	70	4	Alliance for Historic Wyoming	Another issue we would hope to see addressed is the pressing need for intensive training regarding the importance of these trails for those who will be working in the field on such a project. In the past we have seen tragic degradation of precious trail resources simply because the people in the field working do not recognize the significance of the resources in front of them. We know how difficult it can be for the uninitiated to distinguish these historically rich emigrant trails from every day run-of-the-mill ranch roads. Therefore, we believe it is critically important that the BLM ensure that those who are working out in the field on these projects, and not just those who sit in offices and negotiate the lease terms, are thoroughly trained and educated in how to identify historic trails and their significance to our region and our nation. We believe this would go a long way towards preventing those unintentional errors that have occurred all too often with tragic
CU	70	5	Alliance for Historic Wyoming	Lastly, we would note the existence in this area of several territorial freight roads, including the Rock Springs-Brown's Park Road and the Salt Wells Freight Road, that deserve protection under the National Historic Preservation Act.
CU	71	5	Individual	The Cherokee Trail, a candidate for National Historic Trail status, crosses the Hiawatha Project area. The project should be designed to protect the setting of the Cherokee Trail by preventing road and well construction within 2 miles of the trail, except where intrusions would be completely hidden by the topography.
CU	72	3	Individual	The historic Cherokee Trail is also in that area.
CU	73	4	Biodiversity Conservation Alliance	Third, the setting of the Cherokee historic trail (both contributing and non-contributing segments) should receive adequate protection from visual intrusions, which means that wells and roads should be sited a minimum of 2 miles away from the historic trail alignment, except in cases where such visual intrusions are rendered completely invisible to people following the trail by intervening topography. Finally, in areas where industrial-scale development is not precluded by sensitive resource values, the drilling should be done right, using Best Management Practices described as follows.
CU	73	11	Biodiversity Conservation Alliance	The BLM's Hiawatha NEPA analysis must provide a full accounting and baseline information on historical, cultural, and archaeological resources in the project area, particularly the Cherokee Historic Trail (a candidate for National Historic Trail status) but also all other archaeological or cultural sites found within the project area as well. It must provide a complete, detailed, and site-specific analysis of the Hiawatha project's direct and cumulative impacts on these resources. And, for the first time ever, the BLM must apply adequate and proven mitigation measures to protect archaeological, cultural, and historical resources found within the project area and their settings in accordance with the

Hiawatha Scoping Comments by Category

Category	ID	Comment #		Comment Text
CU	73	12	Biodiversity Conservation Alliance	There are important known petroglyph sites to the east of the Project area near Upper Powder Springs, and also southwest of the project area in Irish Canyon. The entire project area should be block-cleared by archaeologists for petroglyph sites in particular as part of the NEPA process; information about the number and importance (but not location) of petroglyph panels should be presented in the EIS. There have been instances in Cedar Canyon in the Jack Morrow Hills planning area where petroglyph panels were vandalized through shooting after gas wellpads were emplaced nearby; wells must be sited farther than ¼ mile from petroglyph panels to mitigate this type of vandalism in the Hiawatha project.
CU	73	13	Biodiversity Conservation Alliance	<p>Section 106 of the National Historic Preservation Act (NHPA) requires BLM to take into account the effects of its actions on all affected historic resources eligible for or on the National Register of Historic Places, and to provide the federal Advisory Council on Historic Preservation (Advisory Council) a reasonable opportunity to comment, prior to making its decisions. 16 U.S.C. § 470f. Congress enacted the NHPA for the explicit purpose of preserving, in the public's interest, "historic properties significant to the Nation's heritage [which] are being lost or substantially altered, often inadvertently." 16 U.S.C. § 470. The Section 106 process carries out Congress' purpose for the NHPA by requiring Federal agencies to seek ways to avoid, minimize, or mitigate adverse effects on historic resources. 36 C.F.R. § 800.1(a).</p> <p>BLM's approval of the Hiawatha project requires compliance with Section 106, because an undertaking funded or licensed by a Federal agency triggers Section 106, especially where, as here, the record clearly indicates the presence of significant cultural resource values and sites within the proposed project area. 16 U.S.C. § 470(f). The Advisory Council's regulations define undertaking to include "project activit[ies] or program[s] funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including . . . those requiring a Federal permit, license, or approval. . . ." 36 C.F.R. § 800.16(y) (emphasis added); see also 16 U.S.C. § (7)(B). The Hiawatha project, which covers federal management on federal lands under a federal permit, unquestionably triggers NHPA and the Advisory Council's regulations, and therefore requires a Section 106 review of the proposed project area prior to granting approval.</p>
CU	73	14	Biodiversity Conservation Alliance	<p>The construction of roads, wellpads, and pipelines would certainly have an adverse effect on historical and cultural resources directly disturbed by construction activities, and also would have a visual impact to the setting(s) of historical and cultural sites within the viewshed of development. Federal regulation provides that,</p> <p>[a]n adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.</p>
CU	73	15	Biodiversity Conservation Alliance	36 CFR § 800.5(a)(1). To achieve compliance with the NHPA, BLM must determine how the project will adversely affect the identified and unidentified historic properties eligible for or on the National Register, and provide methods to avoid or mitigate such effects, prior to approval of the project.
CU	73	16	Biodiversity Conservation Alliance	The Section 106 regulations also confirm that the "[p]hysical destruction of or damage to all or part of the Property," "[a]lteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines" or the "[c]hange of the character of the property's use or of physical features within the property's setting that contribute to its historic significance" results in an "adverse effect" on historic properties. 36 C.F.R. § 800.5(a)(2)(i-ii, iv), emphasis added. The project should provide for a moratorium on off-road vehicle travel and construction activities within view of sites eligible for the National Register; such stipulations could mitigate adverse effects. Therefore, a thorough review of the impacts on historic and cultural resources must be done prior to approval of the project. Motor vehicle use could result in permanent damage to eligible sites.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	<p>The Advisory Council's regulations regarding timing of the Section 106 process require BLM to complete its obligations before approval of the TMP. The regulations, with respect to timing of Section 106, state:</p> <p>[Completion of a Section 106 review] does not prohibit agency officials from conducting or authorizing nondestructive project planning activities before completing compliance with section 106, provided that such actions do not restrict the subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking's adverse effects on historic properties.</p> <p>36 C.F.R. §800.1(c) (emphasis added). In the instant case, the implementation of the Hiawatha project, without even the consideration of alternative plans of development that would avoid archaeological or historical sites, would foreclose future alternatives to preserve archaeological and cultural sites and their settings. Further, the regulations instruct Federal agencies to initiate Section 106 early in an undertaking's planning to ensure that "a broad range of alternatives may be considered during the planning process for the undertaking." Id. (emphasis added). This must be done in the</p>
CU	73	17	Biodiversity Conservation Alliance	<p>These regulations apply directly to the Hiawatha project, which would certainly authorize ground-disturbing construction and drilling activities in previously undisturbed and undeveloped areas. BLM's discretion may be insufficient to fully protect special resource values if site-specific analysis is deferred to some later, unspecified time.</p>
CU	73	18	Biodiversity Conservation Alliance	<p>Because of the known presence of cultural and historical resources on these lands, BLM must conduct a Section 106 review prior to approval of this project. Approval of this project constitutes an irreversible and irretrievable commitment of resources inasmuch as once archaeological resources are destroyed by bulldozers and other heavy equipment, it is very difficult to put it back into its original condition, particularly with regard to fragile archaeological artifacts which may lie just below the surface of the soil. Allowing this project to proceed without first conducting Section 106 review forecloses BLM's ability to preserve cultural and historic values in violation of the mandates of the NHPA.</p>
CU	73	19	Biodiversity Conservation Alliance	<p>Section 110 Responsibilities</p> <p>In addition, federal agencies have special stewardship responsibilities with respect to historic resources on land that is under the agency's "jurisdiction or control." Section 110(a) of the NHPA requires that federal agencies "shall assume responsibility for the preservation of historic properties which are owned or controlled by such agency." 16 U.S.C. §470h-2(a)(1). All historic properties under federal jurisdiction or control must be "managed and maintained in a way that considers the preservation of their historic, archaeological, . . . and cultural values. . ." 16 U.S.C. §470h-2(a)(2)(B), and those properties must be "identified, evaluated, and nominated to the National Register." Id. § 470h-2(a)(2)(A); see id. §470h-2(a)(2)(E)(ii).</p> <p>The proposed action must adequately protect identified cultural and historic properties, and traditional religious and cultural properties. In 1992, Congress specifically amended Section 110 to increase Federal agencies' proactive, ongoing responsibility to locate, inventory, and nominate properties to the National Register, as well as assume the responsibilities for preserving historic properties. See 16 U.S.C. § 470h-2(a) (as amended 1992). Section 110 requires Federal agencies to adopt and utilize cultural resource management programs. Id. BLM adopted an agency-wide Cultural Resource Management Program (CRMP), which includes four manuals. The CRMP has three main components – identification, protection, and utilization. See BLM Manuals 8100 – Cultural Resource Management Plan; 8110 – Identifying Cultural Resources; 8120 – Protecting Cultural Resources; and 8130 – Utilizing Cultural Resources for Public Benefit. These four manuals direct BLM field offices to carry out their responsibilities under Section 110 of the NHPA.</p>
CU	73	20	Biodiversity	<p>Section 106 Responsibilities</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
Conservation Alliance			<p>In addition, BLM must consult with the Wyoming State Historic Preservation Officer (“SHPO”), as is required by the NHPA and the Wyoming State Protocol (which carries out the Nationwide Programmatic Agreement between the Advisory Council, BLM, and the National Association of State Historic Preservation Officers). As noted below, important archaeological and historical sites are present in the project area.</p> <p>The known presence of sites potentially eligible for the National Register triggers BLM’s affirmative obligation to conduct Section 106, as is discussed above, and to consult with the SHPO in accordance with the implementing regulations and the Wyoming State Protocol. 36 CFR § 800.2(c)(1). The Wyoming Protocol requires BLM to seek SHPO comments on eligibility and effect for “[u]ndertakings that adversely affect[] National Historic Landmarks or National Register eligible properties.” Wyoming State Protocol at 6-7. Failure to comply with required procedures would render the Decision Record in violation of the NHPA.</p> <p>The known presence of these sites triggers Section 106 of the National Historic Preservation Act, which requires, inter alia, consultation with the State Historic Preservation Officer. 36 CFR § 800.2(c)(1). This consultation must be performed before the Hiawatha project can be approved. The procedural nature of Section 106 reinforces the importance of strict adherence to the binding process set out in the ACHP’s NHPA regulations: “While Section 106 may seem to be no more than a ‘command to consider,’ . . . the language is mandatory and the scope is broad.” United States v. 62.20 Acres of Land, More or Less, 639 F.2d 299, 302 (5th Cir. 1981). The goal of the Section 106 process is not to generate paperwork, but rather to provide a mechanism by which governmental agencies may play an important role in “preserving, restoring, and maintaining the historic and cultural foundations of the nation.” 16 U.S.C. § 470.</p> <p>Section 106 of the NHPA requires BLM to take into account the effects of its actions on all affected historic resources eligible for or on the National Register of Historic Places, and to provide the federal Advisory Council on Historic Preservation (Advisory Council) a reasonable opportunity to comment, prior to making its decisions. 16 U.S.C. § 470f. Congress enacted the NHPA for the explicit purpose of preserving, in the public’s interest, “historic properties significant to the Nation’s heritage [which] are being lost or substantially altered, often inadvertently.” 16 U.S.C. § 470. The Section 106 process carries out Congress’ purpose for the NHPA by requiring Federal agencies to seek ways to avoid, minimize, or mitigate adverse effects on historic resources. 36 C.F.R. § 800.1(a). The preamble to the current NHPA regulations also make clear that A destruction of a site and recovery of its information and artifacts is adverse. It is intended that in eliminating data recovery as an exception to the adverse effect criteria,</p> <p>Federal agencies will be more inclined to pursue other forms of mitigation, including avoidance and preservation in place to protect archeological sites. @ 65 Fed. Reg. 77689, 77720 (Dec. 12, 2000) (Protection of Historic Properties - Final Rule; Revision of Current Regulations) (discussing intent of § 800.5(a)(2)(iii)). See Chevron U.S.A., Inc. v. Natural Resources Defense Council, 467 U.S. 837, 844 (1984) (A We have long recognized that considerable weight should be accorded to an executive department=s construction of a statutory scheme it is entrusted to administer.@) See 36 C.F.R. § 800.5 (broadly defining Aadverse effect@ to include direct, indirect, and cumulative effects).</p> <p>BLM’s approval of the Hiawatha project requires compliance with Section 106, because an undertaking funded or licensed by a Federal agency triggers Section 106. 16 U.S.C. § 470(f). The Advisory Council’s regulations define undertaking to include “project activit[ies] or program[s] funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including . . . those requiring a Federal permit, license, or approval. . . .” 36 C.F.R. § 800.16(y) (emphasis added); see also 16 U.S.C. § (7)(B). BLM’s promulgation of an EIS for the Hiawatha project, covering federal lands under federal jurisdiction, unquestionably triggers the Advisory Council regulations, and therefore requires a Section 106 review of the proposed project area prior to granting this approval. Regarding timing, The agency official must complete the section 106 process ‘prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license.’ This does not prohibit agency official from conducting or authorizing nondestructive project planning activities before completing compliance with section 106, provided that such actions do not restrict the subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking’s adverse effects on historic properties. 36 CFR § 800.1(c). Therefore, BLM’s approval of a full-field gas and CBM development project falls within the definition of an undertaking</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>requiring Section 106 review – especially when, as here, significant cultural resource values and sites are located in the proposed project area.</p> <p>The Hiawatha project could unquestionably have an adverse effect on historic properties present in the project area. Federal regulation provides,</p> <p>An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.</p> <p>36 CFR § 800.5(a)(1).</p>
CU	73	21	Biodiversity Conservation Alliance	<p>Tribal Consultation</p> <p>The Hiawatha NEPA process should include a full and complete consultation with applicable tribes (including Shoshone, Bannock, Arapaho, Ute, Comanche, Crow, Cheyenne, and Sioux) to identify respected sites and Traditional Cultural Properties and to provide mitigation measures which occur the maximum level of protection for these areas. In particular, any petroglyph sites found within the project area would almost certainly be TCPs, and it is imperative that the BLM bring tribal representatives to these sites in a field visit to assure that adequate mitigation measures are put in place. A mere letter to the tribes without follow-up will not satisfy BLM's consultation obligations; the tribes must be actively engaged in a dialogue by BLM to identify and protect respected sites and areas from damage which could otherwise result from the</p>
CU	73	101	Biodiversity Conservation Alliance	<p>Paleontological Resources</p> <p>Any formations listed as "Class 5" under the Probable Fossil Yield Classification system should be mapped and presented in the Draft EIS. The BLM must map outcroppings of the Fort Union formation and other important fossil-bearing strata in its NEPA document and fully analyze the site-specific impacts of various alternatives on fossil resources contained therein. Please note that in order to provide a credible "hard look" at impacts to fossil resources, exact locations of each road, pipeline, and wellpad must be known and fully disclosed in the EIS. If the proponents are</p> <p>unable to provide such detailed information on project disturbance locations, then they are indeed unready for full-scale approval of this project, which must be deferred until such time as the operators have a plan of development in hand. The agency should conduct full-scale paleontological surveys along proposed rights-of-way and well locations prior to issuing an decision on this project. Paleontologists, not archaeologists, should conduct these surveys as archaeologists possess a different skill set that will not necessarily notice, identify, and properly evaluate paleontological resources (Lillegraven, pers. comm.). The results of these surveys will then provide the necessary baseline information for BLM to make a reasoned assessment of impact levels under the various alternatives of the Hiawatha project.</p>
CU	73	102	Biodiversity Conservation Alliance	<p>Cultural Resources</p> <p>There are several known historical features within the project area which must be protected, including the historic Cherokee Trail. Rock art is known from the Powder Rim and Irish Canyon areas, and may be present throughout the Hiawatha project area. Surveys should be conducted as part of the agency's "hard look" at baseline information as required by NEPA, and if petroglyphs or pictographs are identified, they and their settings should be protected. Other Native American respected sites, such as rock cairns, tipi rings, vision quest sites, and other areas of cultural or religious significance must be identified (by quantity and general location but not specific location, which could lead to vandalism)</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				and protected. Ruins along the Cherokee Trail should be identified, and impacts to them and their settings must be
CU	73	103	Biodiversity Conservation Alliance	One of the enumerated purposes of NEPA is to ensure that decisions of the federal government and its agents "preserve important historic, cultural, and natural aspects of our natural heritage." 42 U.S.C. §4331(b)(4). BLM must take adequate procedural steps to ensure that important known and unknown cultural resources in the project area will be protected in the wake of increased energy development. BLM must take the legally required "hard look," not merely a cursory glance at the potential impacts to the cultural resources in the area. See NRDC, Inc. v. Morton, 458 F.2d 827, 838 (D.C. Cir. 1972).
CU	73	104	Biodiversity Conservation Alliance	To begin, BLM is required to provide an adequate description of the environment to be affected. 40 C.F.R. §1502.15. A complete archaeological and cultural survey of the project area is required. There simply can be no adequate description of the affected cultural environment if 95% of it has not been surveyed. Second, even if the cultural resources have been properly surveyed, the specific locations where surface disturbance will occur under the Proposed Action must be
CU	73	105	Biodiversity Conservation Alliance	BLM is also responsible for looking at ways to lessen the impacts of the Proposed Action on the cultural resources by establishing a full range of reasonable alternatives. 40 C.F.R. §1502.14. Each of the alternatives must specifically analyze these impacts to the cultural resources. 40 C.F.R. §1502.14(a).
CU	73	106	Biodiversity Conservation Alliance	BLM's mitigation program must sufficiently guarantee that the cultural resources in the Hiawatha project area will be preserved. See 40 C.F.R. §§1505.2; 1505.3. Avoidance of known sites must be mandatory. Mitigation can play an important role by reducing the impacts to the cultural resources, but a detailed plan of action is required. Federal courts have held that "where an agency's decision to proceed with a project is based on unconsidered, irrational, or inadequately explained assumptions about the efficacy of mitigation measures, the decision must be set aside as "arbitrary and capricious." Stein v. Barton, 740 F.Supp 743, 754 (D. Alaska 1990). See also Robertson v. Methow Valley, 490 U.S. 332, 352 (1989) ("[M]itigation [must] be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated..."); Neighbors of Cuddy Mountain v. United States Forest Service, 137 F.3d 1372, 1381 (9th Cir. 1998) ("mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA"). BLM's mitigation plan cannot be an ad hoc, piecemeal treatment of the effects to the cultural resources, but must instead be a well-thought-out, comprehensive strategy that would allow the BLM to take the legally required "hard look." Morton, 458 F.2d at 838.
CU	73	107	Biodiversity Conservation Alliance	Specific mitigation must be provided regarding the eligible historic trails, most notably the Cherokee Trail. The 0.25-mile buffer zone protected under previous BLM projects (and indeed codified in the Green River RMP) might protect the trails themselves, but may be insufficient to protect their historic and aesthetic viewshed and character, especially because the routes of the trails have not been verified in the field. The BLM should be aware that when the Green River RMP is in conflict with a higher legal authority, as in the case of historic trail protection, the higher authority is controlling. In the past, the BLM has also not provided analysis of impacts to the viewshed of the Cherokee Trail from developments that occur beyond the ¼-mile buffer but still inside the visual horizon of the Trail, and which could detract from the setting of these trails, and important component of their historical legacy. The BLM Field Office in Pinedale incorporated a 3-mile viewshed beyond the .25 protective buffer in order to offer further protection for the Lander Trail. ROD, EIS for the Pinedale

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	Anticline Oil and Gas Exploration and Development Project, July 2000, p.29. This is the minimal mitigation required to protect historic trails, and we recommend even stronger protections. The BLM should require at least a 2-mile no-surface-disturbance buffer around the Cherokee Trail, with COAs attached automatically as a condition of APD approval, and exceptions granted only in cases where surface impacts would be rendered completely invisible to visitors on the trails by intervening topography and/or vegetation.
CU	73	108	Biodiversity Conservation Alliance	BLM must also discuss concrete monitoring plans instead of relying on the Operators to monitor themselves and to report to BLM if cultural resources are discovered in the process of development. The DEIS must address the very real possibility that industry might choose not to disclose the discovery of cultural resources to the BLM. In its analysis of the impacts to cultural resources, BLM is required to assess the possibility that industry might not cooperate voluntarily. See <i>U.S. v. 27.09 Acres of Land</i> , 760 F.Supp. 345, 352 (S.D.N.Y. 1991) (explaining that the EA was “inadequate in its failure to consider the consequences of possible non-implementation or inadequacy of its anticipated mitigation measures.”) A more comprehensive treatment of mitigation and monitoring is necessary in order “to insure a fully informed and well-considered decision.” <i>Park County Resource Council, Inc. v. USDA</i> , 817 F.2d 609, 621 (10th Cir. 1987) (quoting <i>Vermont Yankee Nuclear Power Corp. v. NRDC, Inc.</i> , 435 U.S. 519, 558 (1978)).
CU	73	109	Biodiversity Conservation Alliance	<p>Requirements under the National Historic Preservation Act</p> <p>The policy behind NHPA is to preserve “the historical and cultural foundations of the Nation.” 16 U.S.C. §470(b). Congress recognized that “in the face of ever-increasing extensions of...industrial development,” the “preservation of this irreplaceable heritage” serves to maintain a “vital legacy...for future generations of Americans.” <i>Id.</i> Section 106 of NHPA mandates procedural requirements for agencies to follow when a federal “undertaking” is contemplated. 16 U.S.C. §470f. Additionally, agencies have substantive obligations under section 110 of NHPA. 16 U.S.C. §470h-2. BLM must provide an adequate analysis of the cultural resources in the project area to fulfill its responsibilities under NHPA.</p> <p>First, Section 106 of NHPA requires that an agency give the Advisory Council on Historic Preservation (ACHP) “a reasonable opportunity to comment with regard to such undertaking” when the undertaking may have an effect on “any...site...that is included in or eligible for inclusion in the National Register.” 16 U.S.C. 470f. Under this act, it is the State Historic Preservation Office [SHPO] that acts as the contact and is the “key participant in the review process.” <i>Utah Council, Trout Unlimited v. U.S. Army Corps of Engineers</i>, 187 F.Supp.2d 1334, 1350 (D.Utah 2002). The regulations interpreting section 106 of NHPA stress the importance of timing in the consultation process. 36 C.F.R. §800.1(c). “The agency shall ensure that the section 106 process is initiated early in the undertaking’s planning, so that a broad range of alternatives may be considered during the planning process for the undertaking.” <i>Id.</i> (emphasis added). The Wyoming state protocol agreement reiterates BLM’s responsibilities, stating that “[a]s major projects become known, each Field Office manager has the responsibility to contact the SHPO to discuss upcoming projects that are likely to affect cultural resources (i.e., large land disturbing projects...) This consultation should occur as early as possible in the planning process with the objective being to facilitate the accomplishment of these projects in ways that meet heritage preservation goals.” <i>State Protocol Agreement</i>, 4/15/99 (emphasis added). BLM should make consultation regarding the irreplaceable cultural resources found in the Hiawatha project area an immediate priority.</p>
CU	73	110	Biodiversity Conservation Alliance	BLM must also comply with Section 101(d)(6)(B) of NHPA. 16 U.S.C. 470a. The regulations interpreting this section explain that an agency official is “require[d]...to consult with any Indian tribe...that attaches religious and cultural significance to historic properties that may be affected by an undertaking.” 36 C.F.R. §800.2(c)(2)(ii). BLM states that “[c]onsultation with appropriate Native American tribes concerning areas of concern to them for traditional, cultural, and religious purposes would occur...within the context of specific development proposals, but would also be an ongoing

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	<p>process between BLM and affected Indian tribes and traditional cultural leaders.” DEIS at 3-83 (emphasis added). Again, the use and tense of the word “would” denotes a future, hypothetical consultation — not an actual, present consult as required by the regulations. Timing is crucial in order to ensure that tribes and organizations have “a reasonable opportunity to identify...concerns about historic properties...advise on the identification and evaluation of historic properties...articulate...views on the undertaking’s effects on such properties, and participate in the resolution of adverse effects.” 36 C.F.R. §800.2(c)(ii)(A). For this reason, “[c]onsultation should commence early in the planning process, in order to identify and discuss relevant preservation issues and resolve concerns...” Id. (emphasis added). In addition, “a mere request for information is not necessarily sufficient to constitute the ‘reasonable effort’ section 106 requires.” Pueblo of Sandia v. U.S., 50 F.3d 856, 860 (10th Cir. 1995).</p> <p>There are at least six Native American groups that may have an interest in the Hiawatha project area: The Northern Utes, the Eastern Shoshone, the Comanche, the Northern Arapahoe, the Sioux and the Northern Cheyenne. A letter to each tribe should be just the first step in BLM’s “reasonable and good faith effort” to attempt to include these groups in true consultation. 36 C.F.R. §800.2(c)(ii)(A).</p>
CU	73	111	Biodiversity Conservation Alliance	<p>Pursuant to §110 of NHPA, BLM must “establish...a preservation program for the identification, evaluation and nomination to the National Register of Historic Places [NRHP]...” 16 U.S.C. §470h-2(a). It is not possible to adequately assess, let alone avoid or mitigate the adverse effects under 36 C.F.R. 800.5 if the proper baseline information has not been collected. Even though the regulations allow for some phased identification and evaluation for large land areas, the Draft EIS must identify a responsible way this will occur. See 36 C.F.R. §800.4(b)(2). An “inventory through bulldozing” approach to cultural resource preservation is not legally sufficient. At the very least, BLM should act now to ensure that a proper evaluation is accomplished for the known sites currently unevaluated and implement a responsible identification plan for unknown sites consistent with the policy and mandates of NHPA.</p>
CU	73	112	Biodiversity Conservation Alliance	<p>The Draft EIS must comply with Executive Orders 11593, 13007, and 13287</p> <p>BLM has an obligation to respond to the policy directives in each of these Executive Orders with concerted effort and measurable action. Executive Order 11593 states that Federal Agencies shall “administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations...[and] initiate measures necessary to direct their policies, plans and programs in such a way that federally owned sites, structures, and objects of historical, architectural or archaeological significance are preserved, restored and maintained for the inspiration and benefit of the people...” Executive Order 11593, §1, May 13, 1971. BLM’s adherence to this mandate must be reflected in the EIS. BLM’s choice to increase oil and gas development through the proposed project is a choice not to preserve, restore and maintain the cultural resources of the area, but to breach its duty to act as a steward and trustee of these important sites and artifacts. This will be particularly obvious if BLM fails to assess the effects of development on the cultural resources by providing inadequate baseline data, providing no sufficient mitigation or monitoring plans for the known and unknown resources and ignoring its consultation and inventory duties under NHPA.</p> <p>BLM must make a timely and reasonable effort to contact the appropriate Native American tribes disregards Executive Order 13007. This Order requires Federal Agencies to “ensure that reasonable notice is provided of proposed actions or land management policies that may restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites.” Executive Order 13007, §2(a), May 24, 1996. 36 C.F.R. §800.2(c)(2)(ii) is also triggered here. The surface disturbing activities inherent in oil and gas development certainly threaten the physical integrity of potentially sacred sites; and as discussed above, BLM’s mitigation and monitoring plan must address this harm (particularly if the planning area remains unsurveyed.)</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	Executive Order 13287 builds on both previous Orders by encouraging Federal Agencies to “provide leadership in preserving America’s heritage by actively advancing the protection, enhancement, and contemporary use of the historic properties owned by the Federal Government...” and to “seek partnerships with State and local governments, Indian Tribes, and the private sector to promote local economic development and vitality through the use of historic properties in a manner that contributes to the long-term preservation and productive use of those properties.” Executive Order 13287, §§1-2, March 3, 2003.
CU	75	7	Sweetwater County Planning Department	The Cherokee Trail is one historic feature that may require special consideration.
CU	82	2	Individual	Our experience in other areas is that this density of development destroys critical animal habitat and other ecological values, as well as cultural (archeology), and scenic attributes. Areas like the Kinney Rim make Wyoming unique and
CU	93	27	Sweetwater County and Sweetwater County Conservation District	BLM has managed the Cherokee Trail as an historic trail, although it has never been formally designated nor identified for study. The EIS will need to deal with the potential historic trail issues.
CUM	62	2	Rock Springs Chamber of Commere	This is an existing field of operation for more than 50 years. Therefore it is appropriate to continue this same
CUM	73	7	Biodiversity Conservation Alliance	This project, together with the Continental Divide – Creston, Atlantic Rim, Desolation Flats, South Baggs, and Monell projects, would block up virtually the entire Washakie Basin for full-field gas development. It will be critically important for BLM to conduct a thorough cumulative impacts analysis taking into account the impacts of each of these drilling projects and also seismic exploration projects on big game migrations and crucial range use, sensitive species population viability, and air quality issues basin-wide.
CUM	73	38	Biodiversity Conservation Alliance	<p>The Hiawatha project occupies the southern Red Desert, where the Desolation Flats, South Baggs, Continental Divide – Creston, and Atlantic Rim projects are currently underway or in the approval pipeline. In addition, there are developments in Colorado that also will have cumulative effects on wildlife populations and recreation opportunities together with the Hiawatha project. With the Hiawatha project, virtually the entire Washakie Basin will be committed to full-field development. Thus, wildlife shifting away from the Wamsutter, Desolation Flats, and Atlantic Rim projects will have no undeveloped lands to shift to. In addition, there are known cross-boundary migrations of big game and other wildlife between Wyoming and Colorado. This illustrates the extreme need for a strong cumulative effects analysis in the forthcoming EIS.</p> <p>NEPA regulations define the circumstances under which multiple related actions must be covered by a single EIS. 40 C.F.R. § 1502.4. To determine the proper scope of an EIS, agencies must consider three types of actions: 1) connected actions, “which means that they are closely related and therefore should be discussed in the same impact statement;” 2) cumulative actions, “which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement;” and 3) similar actions, “which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography.” 40 C.F.R. § 1508.25. Furthermore, the regulations state</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #		Comment Text
			Org.	<p>that agencies such as the BLM should include such actions on once statement “when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.” Id.</p> <p>In <i>Kleppe v. Sierra Club</i>, 427 U.S. 390, 409 (1976), the Supreme Court noted that NEPA may require a comprehensive impact statement in certain situations where several proposed actions are pending at the same time. Thus, when several proposals for actions that will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental consequences must be considered together. Id. at 410. Therefore, where, as is the case in the Red Desert where several oil and gas development projects will have a cumulative or synergistic environmental impact on a region are pending concurrently before an agency, those environmental</p>
CUM	73	39	Biodiversity Conservation Alliance	<p>The Council of Environmental Quality (CEQ) regulations address the need to prepare programmatic impact statements. The regulations define “major federal actions” to include “adoption of programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive.” 40 C.F.R. §1508(b)(4).</p> <p>As the CEQ regulations and related case law make clear, the BLM’s lack of any programmatic, comprehensive analysis of cumulative actions in the same geographic area violates NEPA by restricting later alternatives and fragmenting the true impacts of the oil and gas development. For this reason, we ask the BLM to take a step back and take a comprehensive approach to its land management, and make this analysis available in the Hiawatha EIS. This will ensure that the agency can adequately address the ecological impacts of proposed oil and gas development on the region as a whole before proceeding with further action and will allow the agency preserve its ability to make important management decisions regarding the further oil and gas development in the Red Desert.</p> <p>The CEQ regulations also require broad federal actions to be evaluated (1) Geographically, including actions occurring in the same general location, such as a body of water, region, or metropolitan area and (2) Generically, including actions which have relevant similarities, such as common timing, impacts, alternatives, methods of implementation, media, or subject matter. 40 C.F.R. §1502.4(b). More important, environmental impact statements are to be prepared on these broad programs before they reach the stage of investment or commitment likely to “determine subsequent development or restrict later alternatives.” §1502.4(c). <i>Environmental Defense Fund, Inc. v. Adams</i>, 434 F. Supp. 402 (D.D.C.1977) (holding that the scope of a program impact statement required similar “geographic, temporal, and subject matter.”); <i>Natural Resources Defense Council, Inc. v. Hodel</i>, 435 F. Supp. 590 (D. Or. 1977), aff’d on other grounds sub nom. <i>NRDC v. Munro</i>, 626 F.2d 134 (9th Cir. 1980) (requiring a program impact statement for regional power planning in the Pacific Northwest).</p> <p>An evaluation of the BLM’s recent authorizations demonstrates a consistent lack of compliance with NEPA. The BLM has authorized and is currently authorizing numerous projects in the Upper Green Valley, while simultaneously revising its Great Divide, Kemmerer, and Pinedale Resource Management plans, in a manner that avoids any meaningful, comprehensive environmental analysis of the impacts of oil and gas development in southwestern Wyoming as a whole. This not only results in fragmented analysis but also forecloses any opportunity to look at reasonable alternatives and assess how development should occur. In addition to the two RMP revisions, the BLM is also proceeding with in the Red Desert with numerous individual projects including (1) the Continental Divide – Creston project, with 8,950 wells; the Atlantic Rim project, authorizing from 2,000 wells; the recently completed Jack Morrow Hills plan with 255 proposed wells; the Seminole Road Project, allowing development of up to 1,240 coalbed methane wells; the Desolation Flats project, with 385 wells; and the Cherokee West and other geophysical projects, each of which authorizes cross-country thumper-truck traffic. These projects are all in addition to the future developments that may be proposed under the aegis of the Great Divide and Pinedale RMP revisions.</p>
CUM	73	57	Biodiversity	Oil and gas development is occurring at a breakneck pace all across the Red Desert. The Hiawatha EIS must address

Hiawatha Scoping Comments by Category

Category	ID	Comment #		Comment Text
			Conservation Alliance	<p>the cumulative effects of the massive roading, habitat fragmentation, construction, and increased activity on the Red Desert's native wildlife. According to Ingelfinger's (2001) study of sagebrush birds in Wyoming, "the cumulative impact of state wide patterns of [oil and gas] development in sagebrush communities could cause substantial habitat fragmentation that impacts the sagebrush avian community negatively" (p.34), and "While the population consequences of development of one natural gas field may not be important, the development of multiple gas fields simultaneously, accompanied by historic sagebrush management practices, could have important long-term population ramifications. Given the inability of sagebrush obligate passerines to expand their populations quickly...it may take decades for sagebrush obligates to recover following reclamation" (p. 72). Similar cumulative effects are being felt by mountain plovers, prairie dogs, elk, pronghorns, sage grouse, and burrowing owls, all of which are sensitive to disturbance. Postovit and Postovit (1989) stated, "Although individual energy projects will seldom severely affect raptors over large geographic areas, such developments are often clustered and could thereby affect regional populations" (p. 171). Parrish et al. (1994) echoed these concerns regarding raptors, noting that "even less radical habitat alterations may have a significant impact over a large area – e.g., numerous small/medium alterations in close proximity, such as gas fields" (p. 53). Thus, a credible cumulative impacts analysis is needed on the basis of the ecological needs of wildlife on a regional scale.</p> <p>In lieu of a Cumulative Impacts Analysis on threatened, endangered, and sensitive wildlife species, the BLM often excuses itself from this important analysis by stating that mitigation measures will reduce impacts to a level of insignificance. NEPA does not allow the agency to skip a cumulative impacts analysis on the basis that agency personnel believe (in the absence of any scientific support) that mitigation measures are adequate to prevent cumulative impacts. If the agency is to rely on mitigation measures to reduce impacts to various resources to a level of insignificance, then the agency must also provide tangible proof of the effectiveness of said mitigation measures. Given that monitoring data has been gathered for Red Desert drilling projects for several decades, there should be ample fodder to test the hypothesis</p>
CUM	74	2	United States Environmental Protection Agency, Region 8	<p>In addition to the evaluation and discussion of direct and indirect impacts, the EA should provide cumulative impacts analyses for impacted resources of concern. The EIS should analyze impacts according to airsheds and watersheds, rather than political boundaries. The cumulative impact analysis should include additional energy development activities. At this time, it appears that cumulative impacts analyses should be undertaken for the following resources: surface waters (quality, quantity, and aquatic habitat), wetlands, local and regional air quality and wildlife habitat. 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. A cumulative impacts 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. In the analysis of present and reasonably foreseeable future actions, it is</p> <p>appropriate to examine anticipated activity trends in the study area. Examining activity trends in other areas with similar uses and consideration and the time frame to use when assessing cumulative impacts will vary for each resource under consideration.</p>
CUM	79	4	Environmental Protection Foundation	<p>Furthermore, Table 1 discloses nothing about the present state of depleted habitat, the cumulative impact totals beyond the projected 8,075 long term acres, or what eventual totals will be.</p>
CUM	80	27	Wyoming Outdoor Council	<p>More generally, we ask that the BLM consider in the EIS the question of whether "we are losing the last best places." This area, northwest Colorado and south-central Wyoming, has historically been one of the most remote and wild areas in the Lower 48. The road sign as one leaves Maybell, Colorado heading out in this direction on Colorado Route 318 reads</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	"Next Gas 100 Miles." There are not many places where you can read a sign like that. Not many places where you can get that "uh oh" feeling. Ask (or care), "Do we have any water?" BLM should recognize this uniqueness and address it in the EIS. While once it may have been viable to claim "there's lots more where that came from" and therefore the landscape was not so special or unique, that view is not longer viable given the immensity and ferocity of development forces that are at work. To address this issue properly, we believe BLM will need to hire a professional writer or a poet, and we ask that it do so. This issue is at the core of much of the interest in this project, and deserves the utmost attention.
CUM	84	5	Wyoming Department of Agriculture	In addition to individual impacts, the Rock Springs FO needs to evaluate the cumulative effects of this and the many other energy development projects in southern Wyoming. The development in the Hiawatha project area coupled with energy developments on federal lands in this region of the state could severely reduce Animal Unit Months (AUMs) and available pastures for livestock grazing and could cumulatively limit or terminate the ability of ranchers to graze their livestock and
CUM	86	2	National Wildlife Federation, Rocky Mountain Natural Resource Center	In determining the scope of the EIS, BLM must consider "connected actions," cumulative actions," and "similar actions." 40 C.F.R. § 1508.25. Connected actions include any reasonably foreseeable activities that would not occur "but for" the authorization provided in the Record of Decision. Similar actions include comparable activities on state and private lands in or adjacent to the geographic area of the EIS, as well as these activities on other federal lands in the area. For example, the environmental impacts of oil and gas development on private lands pm watershed or wildlife habitat also impacted by such development on the public lands of the project must be addressed. Most importantly, the BLM must consider the cumulative effects of the numerous other ongoing and/or proposed energy development projects in the
CUM	86	3	National Wildlife Federation, Rocky Mountain Natural Resource Center	Cumulative actions are actions that, when combined, have significant impacts, even if the impact of each individual activity is minor. Impacts that should be addressed in a cumulative fashion include, but are not limited to, soil and vegetation disturbance, changed habitat structure, habitat fragmentation, and air or water pollution. Such cumulative impacts result from a number of activities authorized on BLM-administered lands and other lands, including oil and gas development, logging, mining, grazing, and off-road vehicle (ORV) use. The EIS must include consideration of both direct and indirect effects of these activities. 40 C.F.R. § 1508.25.
CUM	86	11	National Wildlife Federation, Rocky Mountain Natural Resource Center	It is undeniable that intensified energy development in the Vermillion/Hiawatha area will have significant effects on big game and sage grouse habitat. Under CEQ NEPA regulations, BLM must make use of all the best available scientific information to assess these effects, including cumulative effects from other existing, proposed, or foreseeable
CUM	91	5	Vermillion Ranch Limited Partnership	VRLP supports the 5% surface disturbance proposal adopted by Moffat County as part of the Sagebrush Initiative. This 5% surface disturbance limit needs to be applied throughout the project area for a number of reasons...Third, this project is probably not the only energy project to be proposed in the region and any development and mitigation plan needs to anticipate additional development in the region.
CUM	91	7	Vermillion Ranch Limited Partnership	The notice of scoping identifies the project area as covering about 153,000 acres in northwestern Colorado and southwestern Wyoming. As discussed below, the cumulative impacts of the project in terms of surface use, livestock

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				operations, and wildlife, mean that a larger area is affected. Thus, for purposes of the analysis of direct, indirect and cumulative impacts, the EIS needs to cover a larger land area.
CUM	91	10	Vermillion Ranch Limited Partnership	The project must also consider cumulative effects from connected, similar and cumulative actions, including additional energy development. The EIS needs to disclose and address the cumulative effects on wildlife numbers, especially sage grouse, wildlife use and likely displacement of wildlife to other areas in the region. These indirect impacts will in turn have cumulative effects on livestock grazing operations and vegetation and habitat throughout the region
DP	60	1	Individual	Well pads must be kept to a minimum. 6 acres is not acceptable. Technology is here to develop small footprints < 1 acre.
DP	68	5	Individual	The BLM must be vigilant in requiring companies to implement the highest technology that offers the best protection for sensitive areas so that the use of one resource does not eclipse other resource uses.
DP	68	9	Individual	Directional drilling and lower density well-spacing must be part of any plan to extract resources in this area.
DP	69	3	Individual	This absurd project should not even be considered until the BLM takes into account the following factors. 2. Requiring that all new wells be drilled directionally from existing well pads at a maximum density of one per square mile to minimize impact on wildlife and land
DP	71	3	Individual	To prevent habitat fragmentation and outright bulldozing of habitat, the density of roads and wellpads in the in the area must be minimized to the greatest extent possible. The BLM should require a maximum well density of 4 well pads per square mile. The destruction of the Jonah Field must not be repeated on public lands. This requirement is being proposed by BLM on he Roan Plateau, and Shell is currently drilling up to 32 wells per pad using direnctional drilling on
DP	72	2	Individual	Why can't directional drilling and less wellpads be used?
DP	73	1	Biodiversity Conservation Alliance	Small parts of the proposed Hiawatha Project have already been subjected to gas development (the Canyon Creek field and small pods at the Trail and Kinney units), but the rest of the project area is largely undeveloped. According to the Operators, it is unknown at this time whether the tight shale play in the Hiawatha project is basin-centered (i.e., encompassing then entire project area) or restricted to anticline traps (requiring only infill in the Canyon Creek, Kinney, and Trail units but not broadly spread across the project area). If basin-centered, Operators will seek to drill 4,207 wells; if anticlinal, Operators will seek to drill 1,600 as infill in already-drilled areas. This is a major and important difference in the scope and level of impact of the potential project, and makes an enormous difference in how the environmental impacts under various alternatives will be measured. According to Questar, the success (or failure) of wells outside the existing

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				production units during the 2006 drilling season will determine whether this is a basin-centered or an anticline play. BLM should wait until these results are in, and the Operators can tell the agency exactly what they are proposing to do under
DP	73	5	Biodiversity Conservation Alliance	The proposed development is an unconventional tight-shale play, with poorly understood reservoir properties. We are concerned that the Operators will want to have high downhole well density (80-acre spacing or tighter), and to save money, they will want to drill these wells vertically instead of using S-turn directional technology; if vertical wells are used, the result will be an unacceptable level of surface damage and habitat fragmentation in developed portions of the project area. The current level of development of the Jonah Field, at 40-acre surface spacing, results in unnecessary and undue degradation to lands and wildlife. The mistakes of the current Jonah Field (let alone the excesses proposed in the Infill project) cannot be allowed to be repeated in the Red Desert. BP and other operators are already using directional drilling extensively in the Red Desert's Continental Divide – Wamsutter and Continental-Creston project areas; directional drilling has also been successfully implemented in the Kinney Unit itself. S-turn directional drilling and well clustering is the environmentally appropriate development pattern for this project. We incorporate by reference the report Drilling Smarter,
DP	73	35	Biodiversity Conservation Alliance	<p>Pitless Drilling</p> <p>BLM should not approve the use of reserve pits in lieu of the lower-impact "pitless drilling," or closed-loop technologies which are currently available. BLM should provide a complete feasibility analysis including any concrete evidence on comparative costs of reserve pits versus closed-loop drilling. In fact, these technologies are so affordable that they are actually less expensive than reserve pit construction. See Attachment 3. Because bulldozing a wellpad always destroys the habitat area of the disturbed land, there always is and always will be an identified resource use conflict between bulldozing the surface and virtually all other uses (habitat, watershed protection, grazing, recreation, etc.) of the land. Reduction of the footprint for each well pad should therefore be a prime priority for BLM. Because pitless drilling offers the same ability to produce the resources with a smaller footprint on the land, it represents a lower-impact alternative to the larger wellpads and possible poisoning of wildlife presented by reserve pits, and an alternative for which NEPA would</p> <p>therefore require detailed analysis</p>
DP	73	128	Biodiversity Conservation Alliance	<p>Directional Drilling</p> <p>The BLM must give detailed consideration and analysis to a directional drilling alternative. The costs to the natural gas operators should be a minor consideration; gas futures at the Henry Hub are expected to at \$10/tcf this coming winter, a price that would support any imaginable extra cost in the name of reducing impacts to the land and wildlife. The added costs associated with directional drilling will be mitigated by the benefits to the public in terms of avoided environmental impacts and impacts on hunting and other recreation. These benefits need to be estimated and included in the economic analysis for the EIS, and directional drilling should be considered with complete information. We incorporate by reference report, Drilling Smarter: Using Directional Drilling to Reduce Oil and Gas Impacts in the Intermountain West, to provide a detailed technical basis, founded on the petroleum engineering literature produced largely by the oil and gas industry itself, which concludes that directional drilling is feasible and economical in virtually any geologic setting, including the setting presented by the Hiawatha project. We incorporate this report and its conclusions in full into these comments, and expect the BLM to respond to it as the agency would to any other public comment in the NEPA process.</p>
DP	73	129	Biodiversity Conservation Alliance	<p>We would like to call attention to some specific resource protection issues which should automatically trigger the use of directional drilling technology:</p> <p>-Areas within 3 miles of a sage grouse lek;</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>-Key habitats for sensitive wildlife, including lands within ¼ mile of the Hiawatha prairie dog complex or other active prairie dog colonies;</p> <p>-Areas within 2 miles of an active or historic ferruginous hawk nest or 1 mile of the active or historic nests of other raptor species;</p>
DP	73	130	Biodiversity Conservation Alliance	<p>Furthermore, many directional wells have already been drilled in the area. Of the 17 diagonal wells drilled in the Wamsutter Field between 1994-1999, horizontal displacement ranged from 250-2450 feet. Desolation Flats FEIS at 2-43. According to BLM's own analysis in this document, "No completion problems were experienced with the S-shaped wellbores, therefore, this configuration was accepted as the preferred method of directionally drilling in the Wamsutter Field." Id. at 2-43. BLM must also study the possibility of slant-hole completions, which also do not experience difficulties from the standpoint of binding up the drilling string at bends in the wellbore.</p>
DP	73	131	Biodiversity Conservation Alliance	<p>In the past, BLM has argued that directional drilling should not be required due to potentially increased costs to Operators. Experiments in the Wamsutter Field found that directionally drilling 4 wells from a single pad cost 15-20% more than drilling 4 wells on separate pads. Desolation Flats FEIS at 2-44. Presumably, these wells were diagonal or S-turn, as they did not yield a greater product production than the vertical wells. Nonetheless, a 15-20% drilling cost increase is a small price to pay to gain the reduction in habitat fragmentation from such clustering; indeed, it is the least the BLM could require to mitigate for the habitat fragmentation inherent to the project. Many directional wells have been drilled during the past several years, and the performance and costs of these wells must be evaluated in an examination of directional drilling as the Preferred Alternative for the Hiawatha EIS. If the BLM is to live up to its multiple-use mandate, it must require Operators to spend the extra money to achieve substantial reductions in environmental impacts as a cost of doing</p>
DP	73	132	Biodiversity Conservation Alliance	<p>business on multiple-use public lands.</p> <p>The BLM must not report arbitrary and incorrect limits on the horizontal displacement achievable in the project area, particularly when the petroleum engineering literature is replete with more impressive achievements. The relatively short horizontal displacements in the Red Desert is largely an artifact of the current condition that it is impossible to find a spot more than a quarter-mile from an existing wellpad throughout much of the developed area. The puny horizontal displacements in this area therefore reflect not a lack of ability on the part of the operators but a lack of situations in which a longer horizontal displacement would be necessary. The undeveloped lands of the Hiawatha project present a new situation in which it is not only possible to find areas miles from the nearest current wellpad, but indeed necessary to drill long-reach directional (e.g., S-turn or horizontal) wells to avoid sage grouse breeding and nesting concentration areas. In addition, the entire range of well technologies is available to the Operators in the project area; they are able to truck in larger/more technologically advanced drilling rigs than are currently used here, which are capable of reaching much greater horizontal displacements if the BLM's development standards required them to do so.</p>
DP	73	133	Biodiversity Conservation Alliance	<p>In the past, the BLM has made the argument that because directional drilling costs are higher, some marginal wells may not be drilled, some leases would be undeveloped, and thus less gas would be produced. We agree with this assessment, but it does not indicate a problem. Gas prices are market-driven; as supplies increase, the price goes down, rendering some plays marginal. Low prices which would reduce the number of wells in the project area under directional drilling are indicative of a gas glut, when the nation does not need more natural gas. On the other hand, prices are driven higher when the national gas supply drops (and additional production is helpful), and under these conditions both directional and vertical drilling would be economically feasible. Thus, the overall public interest favors directional drilling, under which gas production is optimized when supplies are tighter, the same amount of gas ultimately gets to market, only when it is needed rather than during periods of glut, and the environmental impacts are simultaneously reduced. The argument that directional drilling reduces gas production is a false one over the long term, and the</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	argument that the public interest suffers when marginal plays go undeveloped during periods of glut is even more specious and unsupportable.
DP	73	134	Biodiversity Conservation Alliance	The BLM must therefore analyze at least one alternative that mandates the use of directional drilling to cluster wells and reduce impacts as well as to avoid surface disturbance to sensitive landscapes (big game crucial ranges, plover nesting concentration areas, prairie dog colonies, 3-mile buffers for sage grouse leks and 1- to 2-mile buffers for raptor nests), and should select this alternative for implementation in the Hiawatha project.
DP	73	135	Biodiversity Conservation Alliance	<p>Pitless Drilling</p> <p>One method that is universally applicable to reduce drilling impacts is "pitless drilling," entailing closed-loop systems that recycle drilling mud rather than dumping it into open pits. In addition to the elimination of toxic waste pits on the surface, this method reduces wellfield truck traffic by up to 75%, reduces water consumption by 80%, and is actually 8% less costly than constructing and maintaining a reserve pit (Longwell and Hertzler 1997). This method has proven successful in Alaska (Phillips Petroleum 2002) and Colorado (Longwell and Hertzler 1997), and is planned for the Sakhalin I project in Russia (Sumrow 2002). Due to its environmental advantage, pitless drilling should be mandated as a standard requirement for drilling operations under the Hiawatha project.</p>
DP	73	136	Biodiversity Conservation Alliance	<p>Produced water is typically either reinjected, evaporated from lined or unlined ponds, or trucked to a disposal facility. Water produced as a byproduct of natural gas production is likely to be highly toxic. A nearby disposal facility east of North Flattop Mountain, run by Devon Energy, utilizes sprayers to mist produced water into the air for evaporation. Waters of this low quality and high TDS content, if sprayed into the air for evaporative purposes, would result in a rain of toxic salts and heavy metals on nearby soils which would likely sterilize the soils, kill off the vegetation, and ultimately drain off into Muddy Creek or the Little Snake River during heavy rainfalls. If this method is to be used for wastewater disposal, its impacts must be fully evaluated and disclosed. The BLM could avoid all of these impacts through requiring Operators to employ</p>
DP	73	169	Biodiversity Conservation Alliance	<p>C. PHASED DEVELOPMENT</p> <p>Phased development is an overarching plan that spreads out the harms created by oil and gas exploration and development over time and/or over a geographic area so that other uses and values of the land can be sustained both during and after the lifetime of oil and gas extraction. Phased development can limit both the amount of equipment in use at any given time and amount of surface disturbance on a lease at any given time, and can require successful restoration before permitting additional disturbance. It can also allow for wildlife corridors to be left undeveloped to allow for wildlife movement. The legal framework governing this RMP Amendment obligate the BLM to consider a phased development alternative. BLM should incorporate a phased development alternative while placing the Kinney Rim and Adobe Town off limits to development all together.</p> <p>a. A phased development alternative is most consistent with FLPMA A phased development alternative that provides for oil and gas extraction while preserving other uses of the lands for future generations is most consistent FLPMA. Under FLPMA, the BLM is required to "manage the public lands under principles of multiple use and sustained yield." 43 U.S.C. § 1732(a).</p> <p>Phased development is consistent with the multiple use requirement that BLM manage their "public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people . . . a combination of balanced and diverse resource use that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including but not limited to recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values." 43 U.S.C. § 1701(c) (emphasis</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
		Org.	<p>added). This concept of stewardship also promotes the “harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.” 43 U.S.C. § 1701(c) (emphasis added). The long-term nature of phased development supports FLPMA’s requirement for “sustained yield” by allowing “the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources consistent with multiple use.” 43 U.S.C. § 1702(b).</p> <p>FLPMA’s provision that the Secretary of Interior shall take any action “necessary to prevent unnecessary or undue degradation of the lands” is consistent with the use of phased development. 43 U.S.C. § 1732(b). Further, the preservation of the economic and ecosystem resources of the land through the lifetime of oil and gas extraction in the region best fulfills FLPMA’s multiple use and sustained yield mandates. Planning so that development proceeds at a pace and in a manner that protects present uses and resources is the best way to ensure that it proceeds without permanent impairment of the productivity of the land that would defeat “the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources consistent with multiple use.” 43 U.S.C. § 1702(b).</p> <p>b. A phased development alternative is most consistent with the BLM’s NEPA obligations. In the context of this RMP Amendment, NEPA’s requirement that BLM “rigorously explore and objectively evaluate” a range of alternatives to proposed federal actions obligates the BLM to consider a phased development alternative. See 40 C.F.R. §§ 1502.14(a) and 1508.25(c). The range of alternatives is “the heart of the environmental impact statement.” 40 C.F.R. § 1502.14.</p> <p>NEPA’s requirement that alternatives be studied, developed, and described both guides the substance of environmental decision-making and provides evidence that the mandated decision-making process has actually taken place. Informed and meaningful consideration of alternatives -- including the no action alternative -- is thus an integral part of the statutory scheme.</p> <p>Bob Marshall Alliance v. Hodel, 852 F.2d 1223, 1228 (9th Cir. 1988), cert. denied, 489 U.S. 1066 (1989) (citations and emphasis omitted).</p> <p>As discussed in detail above, BLM violates NEPA if it fails to thoroughly consider reasonable alternatives, including more environmentally protective alternatives. Further, NEPA requires that an actual “range” of alternatives is considered, such that the Act will “preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e. the applicant’s proposed project).” Colorado Environmental Coalition v. Dombeck, 185 F.3d 1162, 1174 (10th Cir. 1999), citing Simmons v. United States Corps of Engineers, 120 F.3d 664, 669 (7th Cir. 1997). This requirement prevents the EIS from becoming “a foreordained formality.” City of New York v. Department of Transp., 715 F.2d 732, 743 (2nd Cir. 1983). See also, Davis v. Mineta, 302 F.3d 1104 (10th Cir. 2002). In this RMP Amendment for the Green River Resource Area, the BLM must not simply consider the development as proposed by the oil and gas companies that are funding this process. Rather, the agency must consider more environmentally friendly approaches to development, including phased development and the other measures described in these comments.</p> <p>In a recent decision, a federal court in Montana held that phased development falls within the “range” of alternatives to be considered. The court found that BLM’s approval of an RMP Amendment and FEIS that allowed full-field coal bed methane development without consideration of a phased development alternative violated FLPMA. Northern Plains Resource Council v. Bureau of Land Management, CV 03-69-BLG-RWA (D.Montana February 25, 2005). The court reiterated that “the agency must look at every reasonable alternative within the range dictated by the nature and scope of the proposal. The existence of reasonable but unexamined alternatives renders an EIS inadequate.” Northern Plains Resource Council, pp. 10-11, citing Friends of Southeast’s Future v. Morrison, 153 F.3d 1065 (9th Cir. 1998). The court then stated that phased development is “within the range of reasonable alternatives” and must therefore be “given detailed consideration” when the BLM is considering a plan for development rather than a site specific project. Lastly, the</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>court held that phased development "is not the functional equivalent of a no-action alternative" and should be considered in addition to other reasonable alternatives.</p> <p>Because NEPA documents have not been completed to evaluate the impact of increasing the amount of oil and gas wells in the Rock Springs Field Office which will change the character of these lands, this RMP Amendment is, as in the Montana case, "precisely the place for BLM to consider alternatives varying the pace and geographic sites of development." Northern Plains Resource Council, p. 19</p> <p>Recommendation: The BLM must uphold its responsibility to protect the abundant natural values present in the Rock Springs Field Office by considering a phased development alternative in the Green River RMP Amendment and evaluating its environmental consequences, as required by both FLPMA and NEPA.</p>
DP	74	18	United States Environmental Protection Agency, Region 8	<p>12. Phased Development and review of Development Plans.</p> <p>The EPA suggests that BLM consider project development in multiple distinct phases. The phases should be both geographic and temporal. BLM should sequentially and individually review all engineering/development plans for each phase, including performing site-specific environmental reviews conforming to NEPA regulations and guidelines. Experience and knowledge gained from each phase may allow better planning and implementation of the subsequent phases. Phasing may provide nearby "safe haven" relief for some of the area habitat, and allow monitoring data feedback to help better plan future development phases. A phased approach to development would also allow BLM to monitor current conditions and allow the gas industry to develop less intrusive methods of development and resource extraction, especially in the more sensitive areas. Aspects that should be addressed in evaluating each phase include: advancement in drilling techniques; engine technologies providing lower emissions; the development of improved BMPs that could be applicable in this project; the need for altering development approaches to prevent apparent impacts not anticipated earlier; and, changes in development plans in other areas that adversely impact the current or cumulative effects. EPA extends an offer to assist BLM in the evaluation of future specific engineering/development plans for each phase of project development.</p>
DP	74	19	United States Environmental Protection Agency, Region 8	<p>Consideration of Directional Drilling</p> <p>Directional drilling should be considered as an option to consolidate production facilities and further reduce surface impacts. While it is not always applicable to mandate directional horizontal drilling throughout an entire project area, for a number of technical and/or economic reasons, it may be applicable in certain specific drilling locations or general areas of a project. We suggest it be considered on a case-by case basis for specific drilling locations during each subsequent phase/periodic review (see comment #12). Experience and knowledge will be gained from each development phase, and there will be continued advancements in this technology. The information gained may enable better planning and implementation of subsequent phases, and may indicate that directional drilling is appropriate in some of the more sensitive areas. If this well drilling method is not applicable, the EIS and subsequent phase reviews should present</p>
DP	75	5	Sweetwater County Planning Department	<p>Sweetwater County Permits: Sweetwater County Oil & Gas Construction/Use Permits are required for all gas wells proposed to be developed by this project within Sweetwater County. Other County permits, such as Construction, Use, Conditional Use, and Zone Changes, may be required for other facilities such as compressors, processing/separation facilities and production water disposal facilities. Whether additional permits are required depends on the use, size and intensity of proposed field development facilities. For more information on zoning permits, please contact the Sweetwater</p>
DP	75	8	Sweetwater County Planning	<p>Work Camps: The Sweetwater County Comprehensive Plan - 2002 encourages "... the location of associated worker housing within existing communities where services are/can be provided." If a compelling need can be demonstrated, a</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Department	Comment Text
			Department	work camp may be permitted through the Sweetwater County Conditional Use Permit Process. This permitting process takes 45 to 60 days to complete. For more information on Sweetwater County Conditional Use Permits for work camps, please contact the Sweetwater County Planning Department at (307) 872-6476.
DP	77	6	Individual	Consideration should be given to combining the production from several wells to a central location even when directional drilling is not feasible. The concentration of production will reduce the production equipment requirements, travel, and well foot print as well as initial cost. Recovering the vented vapors from concentrated liquids is more efficient and cost effective. The concentration of production will reduce human impact on wildlife and livestock, and air and water quality
DP	78	3	Individual	The density of roads and well pads must be minimized to prevent habitat fragmentation and outright bulldozing of habitat to the greatest extent possible. The BLM should require a maximum well density of 4 well pads per square mile; the destruction of the Jonah Field must not be repeated on public lands. This requirement is being proposed by BLM on the Roan Plateau, and Shell is currently drilling up to 32 wells per pad using directional drilling on the Pinedale Anticline.
DP	78	4	Individual	The Hiawatha project targets tight shale formations that require hydraulic fracturing and possibly a high density of well bores traveling through the reservoir rock (but these layouts don't require a high density of surface installations if directional "S-turn" wells are used). The effectiveness of directional drilling has been proven for just these types of situations throughout the region, and BLM has no excuse for failing to require the use of this Best Management Practice
DP	80	20	Wyoming Outdoor Council	<p>In addition to the above consideration we ask that the EIS fully and carefully consider and the ROD provide for staged development of the Hiawatha Project. Phased or staged development is a concept that involves landscape-wide planning of the timing and location of development so as to prevent and mitigate environmental and societal harm. At its core, phased development entails an overarching plan of development that spreads out the harms of natural gas development over time and over a geographic area so that other uses and values of the land, including for example ranching and wildlife habitat, can be sustained both during and after the lifetime of natural gas extraction. Phased development can allow a deliberative adaptive management process, permitting strategies to be devised that prevent or reduce the detrimental effects of future development found to be irreparable or not capable of mitigation.</p> <p>There are at least two means by which phased development might be implemented. First, the Hiawatha Project proponents could be allowed to develop production in one geographic area at a time and when complete, move to another. Second corridors could be left undeveloped to allow for wildlife movement and protection.</p> <p>These concepts are good places to start in developing alternative approaches for pursuing phased development for various reasons. Developing on geographic area at a time could prevent or mitigate some surface impacts. By clustering development in one geographic area, development could be planned in such a way as to utilize common infrastructure such as roads, powerlines, and pipelines.</p> <p>Phased development to protect wildlife populations and habitat would need to concentrate on limiting the geographic and temporal scope of development in a given area in ways designed to leave enough habitat for species to coexist with development at each point in time during the life of the project, from drilling through extraction to reclamation.</p> <p>In addition to these concepts, BLM should consider the following in developing phased development alternatives:</p> <ol style="list-style-type: none"> 1. Clean up as you go: Operators should be required, consistent with applicable law and lease terms, to fully reclaim

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>disturbed areas prior to moving on to the next phase of development. Phased development of this type would provide that lands would be fully reclaimed before other areas are disturbed. This would provide adaptive management benefits in that information gained from earlier phases could be used to make subsequent phases better.</p> <p>2. Minimizing Surface Impacts by Planning for Shared Infrastructure: BLM-approved projects and wells should try to minimize surface impacts by utilizing, wherever possible, existing infrastructure such as power lines, pipelines, compressor stations, water treatment facilities, and rights-of-way.</p> <p>3. Directional Drilling: Directional drilling should be considered in conjunction with and as a means to effectuate developing leases in phases, as well as on its own. Requiring that directional drilling be utilized where viable would reduce surface impacts while at the same time allowing for more of a lease to be developed.</p> <p>4. Plan by Management Area: It must be emphasized that there is likely no one-size-fits-all phased development alternative that would best protect the important resources of a given area within the Hiawatha Project area. For example, important wildlife populations such as sage grouse maybe concentrated in certain regions. Therefore, BLM should create specific management areas and implement different concepts of phased development to protect the resources as they vary from one area to another.</p> <p>Phased development has become recognized as a requirement for BLM to fully consider. A phased development approach was recently proposed in the Seminole Road Draft EIS. In Northern Plains Resource Council v. BLM, No. CV 03-69-BLG-RWA (D. Mont. February 25, 2005) and Northern Cheyenne Tribe v. BLM, No. CV 03-78-BLG-RWA (D. Mont. February 25, 2005) the court held that BLM violated NEPA by not considering alternatives for phased development in the context of a coalbed methane development project. In the Pinedale Anticline EIS BLM acknowledged that, "BLM can regulate the manner and pace of development" and that pursuant to Interior Board of Land Appeals decisions, "consider[ing] staggering development over time [is] an "obvious alternative." Pinedale Anticline Draft EIS at 2-43 (citing Wyoming Outdoor Council, 147 IBLA 105 (1998) and Powder River Basin Resource Council, 120 IBLA 47 (1991) (emphasis supplied by BLM).</p>
DP	81	8	Wyoming Game and Fish Department	<p>The total disturbance from field development and production is an issue. Industry should minimize the disturbance whenever feasible through directional drilling, multiple-well pads, centralized gathering facilities and pipelines, remote monitoring of wells, and other methods.</p>
DP	82	6	Individual	<p>The BLM should require the use of directional drilling in the project to minimize the surface disturbance by reducing the density of well pads. High density surface occupation like that in the Jonah field is highly destructive for semi-desert ecosystems and also destroys scenic values. Directional drilling has the potential to reduce these problems.</p>
DP	85	21	Colorado Division of Wildlife	<p>CDOW encourages development in the project area to follow several key principles:</p> <p>Carefully plan exploration and development to minimize surface disturbance and fragmentation of habitat and duplication of facilities.</p> <p>Minimize the size and maximize the surface spacing between new gas facilities. Strive for an average surface spacing greater than or equal to 1 well pad/160 acres.</p> <p>Gas facilities (new and existing pads, access roads, pipeline corridors and other facilities) should not exceed 5% of the project area at any time using a performance based, rolling reclamation approach (i.e. reclaimed acreage with demonstrated establishment of desired plant communities is no longer considered disturbed for the purpose of</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>calculating 5% of the project area).</p> <p>Unavoidable surface disturbance in excess of 5% of the area should be balanced with an agreement to clean up and effectively reclaim existing and historic facilities within the project area over time to reduce the total amount of surface disturbance.</p> <p>Minimize the number, length and width of well pads, access roads and pipeline corridors. Use directional drilling technology, drill deep wells from existing shallow well pads, use existing road and pipeline corridors, run pipelines in roadways rather than in separate corridors, etc.</p> <p>Given the difficulty of reclamation within the project area, avoiding surface disturbance will be more effective than any</p>
DP	85	22	Colorado Division of Wildlife	The project description in the Scoping Notice appears to maximize the amount of surface disturbance with large, single well pads, separate road and pipeline networks, and excessive width for the transportation pipeline. This gratuitous surface disturbance is inconsistent with careful development in this fragile and difficult site and should receive careful reconsideration during development of the Environmental Impact Statement.
DP	88	1	Individual	My concerns regarding this kind of project are 1) that the land disturbing activities are kept to a minimum by such as combining roads and pipeline corridors,
DP	89	2	Western Business Roundtable	The EIS process should recognize operators efforts to assure environmentally-responsible development of the resource. We understand that the EIS is an effective means to ensuring the environmentally sound development of energy reserves on government-controlled lands. Oil and gas operators have, in recent years, refined an entire toolkit of technologies and practices they can draw upon to effectively mitigate the impacts of exploration and development activities. The EIS needs
DP	91	13	Vermillion Ranch Limited Partnership	VRLP has surface use agreements on Wyoming State lands where only 80 acre surface spacing is allowed but 160 acres per well location is preferred. The proposed project proposes much closer spacing which is at odds with current agreements. Moreover, the spacing modification will have much greater surface disturbance impacts that the EIS must
DP	91	24	Vermillion Ranch Limited Partnership	The proposed alternative for phased development should be modified to incorporate the Moffat County 5% surface disturbance standard. Otherwise the phased development will not necessarily reduce the effects on grazing, vegetation, wildlife and water resources. More importantly, phased development can only be effective if it includes rolling, intensive reclamation. In Vermillion's experience, salt sage requires about 20 years to reestablish in an area where the surface is disturbed. The project's success in meeting the stated outcomes depends on effective and intensive reclamation, such as irrigation and planting non-native desired plant species as part of the seed mix.
DP	91	25	Vermillion Ranch	VRLP supports looking at the entire potential build out rather than the current proposal. The sheer size of the project

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
			<p>Lim Corp Partnership highlights the need to build efficiencies for transporting gas, equipment, and personnel into the project from the very</p>
DP	91	26	<p>Vermillion Ranch Limited Partnership Phased or staged drilling and development held to the 5% rule will limit the surface disturbance acres, so that livestock grazing and wildlife use can continue throughout most of the project area. By requiring rolling intensive reclamation, the project could proceed to build out in an orderly fashion. This would also limit changes in wildlife habitat, possible erosion, dust and other indirect and cumulative effects of the project.</p>
DP	91	27	<p>Vermillion Ranch Limited Partnership Experience in other fields shows that phased development allows operators to centralize fracking operations and reduce vehicle trips. These save in operating costs as well.</p>
DP	91	29	<p>Vermillion Ranch Limited Partnership The current standards require 160 acre spacing for wells and the proposal seeks approval for much denser spacing. The denser spacing does not appear to meet the 5% surface disturbance rule and will have a number of environmental impacts. As a result, it is very important that the EIS vigorously explore the opportunities for directional drilling, or drilling</p>
DP	91	30	<p>Vermillion Ranch Limited Partnership Buried pipeline routes are still visible for decades in the Rocky Mountain deserts. This is due to the difficult reclamation environment and the changed vegetation that make the pipeline route itself very visible. It is less costly to keep the pipeline on the surface, unless the pipeline must be underground for technical reasons. It will reduce loss of vegetation, increased dust, and loss of habitat. This option would also decrease construction time and costs. When technical factors preclude surface pipelines, the pipelines should be ripped in.</p>
DP	91	31	<p>Vermillion Ranch Limited Partnership Avoid Redundant Delivery Systems and Unnecessary Road Construction For the same reasons described above, the pipeline collection and delivery systems should be designed efficiently. With phased development, this is more likely because infrastructure can be planned along with the wells and could be centralized.</p>
DP	91	32	<p>Vermillion Ranch Limited Partnership In the event that the above proposal does not sufficiently mitigate impacts, especially on the sage grouse, the EIS must explore off-site mitigation opportunities. Unfortunately, off-site mitigation has been equated with a large sum of money, when in fact NEPA requires that there be a clear connection between the compensatory mitigation and the impacts. In the context of this project, mitigation for impacts on sage grouse habitat needs to be directly connected to adjacent lands that will provide substitute habitat. VRLP is in a unique position to participate in that effort. There are a number of possible opportunities, including but not</p>
DP	93	30	<p>Sweetwater County and Sweetwater County Conservation District SWC and SWCCD support a preferred alternative that is based on a phased development approach with rolling, intensive reclamation.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Organization	Comment Text
DP	93	31	Sweetwater County and Sweetwater County Conservation District	SWC and SWCCD also support an alternative that establishes performance-based standards to be achieved, rather than prescriptive terms and conditions.
DP	93	33	Sweetwater County and Sweetwater County Conservation District	SWC and SWCCD also recommend that BLM include the Moffat County 5% surface disturbance restriction as an alternative. This restriction is intended to replace sage grouse and seasonal wildlife closures with a limit on surface disturbance within the project area as it applies to oil and gas development. This reflects a compromise that will be part of the Little Snake River RMP revision and should be part of the EIS analysis.
DP	93	35	Sweetwater County and Sweetwater County Conservation District	SWC and SWCCD understand there may be technical constraints on directional drilling or working from the same pad. There may however be cases where it is possible. If technically feasible and reasonably economic, this option should be explored. Putting additional drill holes on the same pad could help to reduce environmental effects of development, such as loss of vegetation and habitat that equally affects livestock grazing and wildlife.
DP	93	36	Sweetwater County and Sweetwater County Conservation District	<p>Experience in the Rocky Mountain deserts shows that buried pipeline routes are still visible for decades. This is due to the difficulty in reclamation and the changed vegetation makes the pipeline route itself very visible.</p> <p>It is less costly to keep the pipeline on the surface, unless the pipeline must be underground for technical reasons. It will reduce loss of vegetation, increased dust, and loss of habitat. This option would also decrease construction time and costs.</p> <p>Due to the properties and pressures of the gas, this may not be feasible throughout the project but there may be</p>
DP	93	37	Sweetwater County and Sweetwater County Conservation District	For the same reasons described above, the pipeline collection and delivery systems should be designed efficiently. With phased development, this is more likely because infrastructure can be planned along with the well pad sites and could be centralized.
DP	94	1	Individual	Surface spacing of the wells is a concern, and Questar did state where possible they would use the same well pads. We realize that the well pads will have to be extended due to the depth of the wells proposed.
DP	94	2	Individual	On the Colorado side we would ask that you offer the volunteer program proposed by the cooperators in the Draft Little Snake Resource Management Plan Revision, to waive sage grouse stipulations and big game stipulations providing they use the 5% disturbance area within 160 acres of their development. This would allow for the companies to have year around drilling. Year round drilling is a positive for the companies to get in develop and get operational, and move off the land quicker. It is also a positive for the habitat and the disturbance. If they could come in and

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	finish their development cycle at one time, and then move off the land and begin reclamation, the disturbance to the sage grouse and big game, would be lessened.
DP	94	4	Individual	There have been questions about directional drilling. My understanding is that it is not cost effective or technology is not here yet to directionally drill in these formations in Hiawatha. We do not know the gas producing capability of this field. Questar has an excellent presentation on directional drilling and it is not a process at this time they can use in this Hiawatha field.
HE	61	1	Individual	As a mitigation for the long term needs of maintenance people working on the developed field, BLM should consider building public rest room facilities similar to the facilities in place at camp sites etc
HE	74	25	United States Environmental Protection Agency, Region 8	Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," signed in 1994, applies to federal agencies that conduct activities that substantially affect human health or the environment. In accordance with this order, the EIS should disclose and evaluate any environmental justice aspects associated with impacts on rural low-income communities by either the proposed project, or the potential build-out for reasonably foreseeable development analysis. If there are no applicable environmental justice considerations, then that should be disclosed. Close coordination with any potentially future impacted Native American tribes, is important.
PO	62	1	Rock Springs Chamber of Commere	We support the Sweetwater County Commissioners status as a cooperating agency in this process.
PO	73	10	Biodiversity Conservation Alliance	<p>CONCERNS REGARDING POTENTIAL APPLICATION OF IM NO. 2005-047</p> <p>Instruction Memorandum (IM) No. 2005-047 issued effective September 30, 2005, purports to provide guidance on NEPA compliance in oil, gas and geothermal exploration and operations. However, we have significant concerns over the legal validity of some of the guidance contained in the IM, as well as the manner in which they can and should be applied. Since certain provisions of this IM potentially apply to the Hiawatha Project, we are addressing them here and providing some specific recommendations.</p> <p>a. Range of Alternatives: In the section on Range of Alternatives, the IM appears to direct BLM to come up with its own alternatives that analyze the impacts of higher well density and development levels beyond the proposed action in order to facilitate the use of the new categorical exclusions (CXs) from the recent Energy Policy Act of 2005 ("Energy Bill"). There is certainly no obligation under NEPA or any other federal law to analyze alternatives that have greater environmental consequences than the proposed action. To the contrary, courts have found that the purpose of NEPA's alternatives requirement is to ensure agencies do not undertake projects "without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means." <i>Env'tl Defense Fund., Inc. v. U.S. Army Corps. of Eng'rs</i>, 492 F.2d 1123, 1135 (5th Cir. 1974); see also <i>Or. Env'tl Council v. Kunzman</i>, 614 F.Supp. 657, 659-660 (D. Or. 1985) (stating that the alternatives that must be considered under NEPA are those that would "avoid or minimize" adverse environmental effects). Accordingly, requiring BLM to develop and consider more environmentally damaging alternatives could violate NEPA. This approach could also violate the directives of the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. § 1701 et seq., for BLM to "minimize</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
		Org.	<p>adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved” and “take any action necessary to prevent unnecessary or undue degradation of the lands.” 43 U.S.C. § 1732(d)(2)(a); 43 U.S.C. § 1732(b).</p> <p>Further, NEPA’s requirement for consideration of a range of alternatives is intended to prevent the EIS from becoming “a foreordained formality.” <i>City of New York v. Department of Transp.</i>, 715 F.2d 732, 743 (2nd Cir. 1983). See also, <i>Davis v. Mineta</i>, 302 F.3d 1104 (10th Cir. 2002). Directing BLM to create and adopt management alternatives that will then fit CXs also seems to violate NEPA’s prohibition by essentially directing the manner in which the alternatives will be analyzed.</p> <p>This portion of the IM does, however, also contain guidance that is consistent with the requirements and underlying policy of NEPA, by directing BLM to develop and analyze alternatives that would reduce impacts “even if implementation would require amendment of the applicable land use plan,” and specifically including best management practices (BMPs) and looking to the techniques and technologies to reduce impacts and costs used in other field offices. This approach fulfills BLM’s obligations under NEPA to consider more environmentally protective alternatives and under FLPMA to minimize and avoid adverse environmental impacts, as well as implementing BLM’s previous commitments to using BMPs for development projects. See IM No. 2004-194; see also <i>Surface Operating Standards for Oil and Gas Exploration and Development – the “Gold Book”</i> (Fourth Edition 2005). Consequently, we would recommend that BLM fulfill its obligation to develop less damaging alternatives for the Hiawatha Project by considering the imposition of BMPs such as directional drilling, drilling multiple wells from a pad and interim reclamation.</p> <p>b. New CXs: The IM states that these CXs are not subject to the standard exemption for “extraordinary circumstances,” but we believe that this guidance may be contrary to existing law. The “extraordinary circumstances” exemption is set out in the NEPA regulations (at 40 C.F.R. § 1507.3) and elaborated upon in the Department of Interior’s Manual (Part 516 on NEPA), in order to clarify that agencies may not apply CXs where there is a risk of significant impacts, such as where environmental effects are highly controversial or unknown. Although the IM takes the position that the CXs are exempt because they were included in legislation and not developed by agency rulemaking, the Energy Bill does not specifically exempt these CXs from the operation of other laws which could otherwise limit their application. Further, the Energy Bill states that there is a “rebuttable presumption” that the CXs apply, which would be consistent with the application of the “extraordinary circumstances” exception to show where the CXs should not apply. The statutory language itself thus appears to specifically sanction the application of the “extraordinary circumstances” regulation.</p> <p>The Energy Bill imposed a “rebuttable presumption” that certain actions might qualify for a CX, thereby implying that there must be some way for the presumption to be rebutted. This is exactly the process set out in 40 C.F.R. §§ 1507.3 and 1508.4 and addressed in the Department of Interior’s Manual: the agency must prepare an environmental assessment where “extraordinary circumstances” are present, notwithstanding categories of activities for which CXs are typically appropriate. Congress could have done away with this provision, but it did not. The BLM is not free to ignore the “rebuttable presumption” language, because to do so would construe the statute to deny that every word has operative effect. <i>U.S. v. Nordic Village</i>, 503 U.S. 30, 36 (1992). The BLM must interpret the statute to give effect to all provisions. <i>Biodiversity Legal Foundation v. Badgley</i>, 309 F.3d 1166, 1175 (9th Cir. 2002), citing <i>Colautti v. Franklin</i>, 439 U.S. 379, 392 (1979).</p> <p>The IM ignores this aspect of the rebuttable presumption language and also fails to mention the possibility that the application of other laws, such as the Endangered Species Act, could prevent application of the CXs. As a result, we believe that the approach to using the CXs set out in IM 2005-047 is legally questionable, at best, and would caution BLM against proceeding to apply CXs without taking into account whether circumstances or other laws would counsel against applying the CXs.</p> <p>c. Multiple Well EAs/EISs: This section of the IM directs BLM to complete an “umbrella analysis” for an estimated number of wells, which also may be tied to a specified geographic area, so that additional NEPA documentation for future Applications for Permits to Drill (APDs) or related rights-of-way would “rarely be necessary.” This is also explicitly tied to making subsequent actions fit the new CXs or other limits on NEPA analysis. The IM states that this approach will “facilitate improved assessment of cumulative impacts” and will make it “easier to compare the impact reduction from best management practices when applied over a larger area for multiple wells.”</p> <p>The IM’s rosy picture of the benefits of a multiple well EIS for cumulative impacts and BMPs would be welcome, but will only be workable and not violate NEPA if BLM actually performs a thorough cumulative impacts analysis and takes into account site-specific impacts at the Plan of Development level. Otherwise, BLM will still need to complete broader</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #		Comment Text
			Org.	<p>analyses on later activities.</p> <p>This portion of the guidance does direct BLM to analyze “at least one alternative that incorporates the applicable BMPs.” As discussed above, this approach is consistent with BLM’s obligations under NEPA and FLPMA to minimize the environmental consequences of development and to show the agency’s true commitment to the BMPs discussed in both IM No. 2004-194 and the recently-issued Fourth Edition of the Gold Book. We wholeheartedly support BLM thoroughly</p> <p>assessing direct, indirect and cumulative impacts of proposed development projects on a landscape level, performing this analysis prior to authorizing development, and requiring the application of best management practices to a broad range of activities. If carried out in good faith, this approach would both permit better protection of the multiple resources managed by BLM and result in fewer conflicts (including formal opposition) down the road.</p>
PO	73	22	Biodiversity Conservation Alliance	<p>In the past, the BLM has deferred any hand in the management of oil and gas development to market forces, abdicating its responsibility to actively manage oil and gas development. It is the BLM’s unquestionable responsibility to acquire and present in its NEPA analysis a full-blown plan of development for the Hiawatha field, including the site-specific locations of all wells, roads, and pipelines for each alternative. Only in this way can BLM accurately estimate the impacts of the project, as the magnitude of impact to many sensitive resources (e.g. archaeological sites, fossil sites, crucial big game winter ranges, raptor nest sites, sage grouse lek sites, and others) are largely, if not entirely, dependent on the location of proposed development in proximity to the sensitive areas. The BLM can, and must, accurately predict the number and location of all future wells in the planning area with 100% accuracy by presenting a completed, geographically specific plan of development in the EIS. And according to federal law, the number of additional wells, well locations, timing of drilling and construction should not be dictated by market forces, but by environmental and multiple use considerations.</p>
PO	73	23	Biodiversity Conservation Alliance	<p>NEPA’s mandate is that all federal agencies analyze the likely effects of their actions, as well as address the potential alternatives. “Agencies are to perform this hard look before committing themselves irretrievably to a given course of action so that the action can be shaped to account for environmental values.” NEPA § 102(2)(c) requires the agency to consider numerous factors [including] irreversible commitments of resources called for by the proposal.” Sierra Club v. Hodel, 848 F.2d 1068 (10th Cir. 1988) (reversed on other grounds). NEPA provides procedural protections for resources at risk by requiring analysis of impacts before substantial decisions are made that set development in motion. See Conservation Law Foundation v. Watt, 560 F. Supp. 561, 581 (D. Mass. 1983), aff’d by Massachusetts v. Watt, 716 F. 2d 946 (1st Cir. 1983).</p> <p>In the Desolation Flats and Pacific Rim projects, the BLM violated NEPA by failing to disclose and evaluate a site-specific plan of development, with the locations of wells, roads, compressor stations, and pipelines laid out in advance. In the absence of such a plan, the agency was unable to undertake a credible impacts analysis for these projects, with the exception of impacts that are non-site-specific, such as air pollution. This will not suffice for the Hiawatha project. It is not permissible for the BLM to approve a full-field development project without planning for where the impacts will occur. It is equally unacceptable for BLM to defer site-specific analysis to the APD stage, as the allows development to proceed in an unplanned and chaotic manner, which results in the unnecessary destruction of lands and resources. It is important to note that, as the recent IM on Categorical Exclusions (“CEs”) sets forth, the agency is likely to skip all NEPA analysis for many APDs in this project and use CEs instead, thereby illegally avoiding the site-specific impacts analysis required by NEPA entirely.</p> <p>The problem? In what conceivable world is BLM then going to be able to actually address site-specific impacts to soils, vegetation, wildlife, surface waters and cultural resources, with this scant information? In reality, the agency cannot, and this creates yet another problem. Once the project is approved, BLM will then take on APDs and tier back to this EIS for the majority of impacts, and voila, one of BLM’s favorite shell games is uncovered: push off important environmental analyses that could be done in the present if BLM bothered to go out and collect information and survey existing resources, to later stages of development – and at that time, “tier back” to the nonexistent analysis in the Hiawatha EIS.</p> <p>In the end, the result is that very little gets analyzed, and that that does, is analyzed in a piecemeal fashion, APD by APD</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	<p>instead of comprehensively at the project-level stage. Given that this type of EIS by BLM's own admissions cannot accomplish its core objectives, a better manner of proceeding in this situation where there is no information on likely producing reserves (and thus well pads, etc.), is to allow a few exploratory APDs to gather the necessary information for a proper EIS that could look at, plan for, analyze and mitigate impacts across a 184,000 acre swath of public land. Without an explicit plan of development, the EIS can accomplish none of that, and beyond its future impermissible use in BLM's</p>
PO	73	24	Biodiversity Conservation Alliance	<p>constant impact analysis shell game, it is a waste of the taxpayer's time and money</p> <p>A related serious flaw that must be avoided concerns qualitative versus quantitative impact assessments. BLM has mastered the obvious in being able to state the types of impacts but has done very little in actually quantifying for the public what the actual impacts to various resources will be. Examples include: roads will fragment wildlife habitat; compressor stations will cause noise; soil loss will affect vegetation communities; produced wastewater will increase sedimentation; hundreds of wells/miles of roads will cause soil loss, and so on. However, the point of NEPA is to study and disclose what the actual impacts will be. In other words, we are asking here for more than a 4th grade level of impact analysis, e.g.: what will impacts be by species, location and distinct populations of wildlife due to roads; with displaced vegetation communities, what types of new species will invade and how long will it take to reach equilibrium; how will increased sedimentation affect aquatic life; and what are impacts to species, vegetation, ecological functions, etc., from thousands acres of soil loss?</p> <p>Simply stating the obvious that massive industrial development will cause qualitative impacts really misses the point of a NEPA analysis; in the Hiawatha EIS BLM prepares it must look at what the actual degree of impacts will be. As with other areas, this deficiency by BLM will result in the federal courts sending BLM back the EIS to try again. See, e.g., <i>Defenders of Wildlife</i>, 130 F. Supp. 2d 121, 128 (D. D.C. 2001) (setting aside agency's EIS where it "states that noise would be increased and both the pronghorn and their habitat would be disturbed" but contained "no analysis of what the nature and extent of the[se] impacts will be"); <i>National Parks & Conservation Association v. Babbitt</i>, 241 F.3d 722, 743 (9th Cir. 2001) (NEPA document inadequate where it identified "an environmental impact" but "did not establish the intensity of that impact."); <i>Neighbors of Cuddy Mountain v. U.S. Forest Service</i>, 137 F.3d 1372, 1379-80 (9th Cir. 1998) ("General statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided. . . . Nor is it appropriate to defer consideration of cumulative impacts to a future date. . .").</p> <p>Therefore, without an analysis of the on-the-ground effects that are likely to flow from the various "risks" identified in the EIS, there is no way for either the agency or the public to make a meaningful evaluation of competing alternatives – which,</p>
PO	73	25	Biodiversity Conservation Alliance	<p>One of the most important aspects in an EIS is to adequately and accurately describe the affected environment such that impacts can be properly evaluated. BLM must not fail to live up to this standard, to avoid incurring another NEPA violation. Some examples of baseline data that must be gathered for this EIS include baseline data for: prairie dog population sizes and detailed colony boundaries (particularly for the Hiawatha prairie dog complex), populations (and occurrence data) for other BLM Sensitive Species, and locations of historic trails known to lie within or near the Hiawatha project area.</p> <p>A great deal of additional baseline data must be gathered as a necessary prerequisite to a thorough "hard look" at impacts pursuant to NEPA. Site-specific surveys for Threatened and Endangered Species and BLM Sensitive Species cannot be deferred until just prior to surface-disturbing activities; these surveys must be conducted for these species prior to the publication of the Draft EIS. Specific air quality monitoring data, for both the project area and for neighboring sensitive areas such as the Huston Park, Bridger, Popo Agie, Mount Zirkel, and Savage Run wilderness areas, Snowy Range (GLEES) air research station, and Rocky Mountain National Park, must be gathered and presented in the EIS. All areas to be impacted by the proposed development (presumably the entire project area) must be block-cleared and surveyed for archaeological and cultural sites as part of the EIS. Population size and trends for sage grouse, elk, mule deer, pronghorn, mountain plover, swift fox, and raptors must be gathered and presented. Migration corridors must be identified and mapped in the EIS. Groundwater flow models must be generated and presented. The location of sensitive</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				wetlands, springs, and riparian areas must be presented. And importantly, the exact location of proposed wells, roads
PO	73	26	Biodiversity Conservation Alliance	Importantly, 40 C.F.R. §1502.15 requires agencies to “describe the environment of the areas to be affected or created by the alternatives under consideration.” Establishment of baseline conditions is a requirement of NEPA. In <i>Half Moon Bay Fisherman’s Marketing Ass’n v. Carlucci</i> , 857 F.2d 505, 510 (9th Cir. 1988), the Ninth Circuit states that “without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA.” The court further held that, “The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process.” Clearly, BLM must provide this information in the EIS so that environmental consequences can be
PO	73	27	Biodiversity Conservation Alliance	Pursuant to NEPA, the “no action” alternative (40 C.F.R. § 1502.14(d)) is supposed to give a baseline comparison for which to compare the impacts of the different action alternatives. The only way to properly do that is a no action alternative that does not allow, at least theoretically, any action. BLM must provide and analyze such an alternative for this EIS.
PO	73	28	Biodiversity Conservation Alliance	BLM must take a hard look at the full range of reasonable alternatives, a fundamental underpinning – the “heart” – of an EIS. 40 C.F.R. § 1502.14. BLM should note that this basic, fundamental requirement that is the touchstone of every EIS has not gone unnoticed on the federal judiciary in sending back EISs that fail to meet this requirement. See e.g., <i>Calvert Cliffs, Coordinating Comm., Inc. v. United States Atomic Energy Comm’n</i> , 449 F.2d 1109, 1114 (D.C. Cir. 1971) (detailed EIS required to ensure that each agency decision maker has before him and takes into account all possible approaches to a particular project . . . which would alter the environmental impact and the cost-benefit balance); <i>Natural Resource Defense Council v. Callaway</i> , 524 F.2d 79, 93 (2d Cir. 1975); (“The duty to consider reasonable alternatives is independent from and of wider scope than the duty to file an environmental statement.”); <i>Simmons v. United States Army Corps of Engineers</i> , 120 F.3d 664, 660 (7th Cir. 1997) (“The highly restricted range of alternatives evaluated and considered violates the very purpose of NEPA’s alternative analysis requirement: to foster informed decision making and full public involvement.”); <i>Alaska Wilderness Recreation & Tourism v. Morrison</i> , 67 F.3d 723, 729 (9th Cir. 1995) (“The existence of a viable but unexamined alternative renders an environmental impact statement inadequate.”); <i>Dubois v. U.S. Dept. of Agric.</i> , 102 F.3d 1273, 1288 (1st Cir. 1996) (EIS invalid because agency did not consider alternative of using artificial water storage units instead of a natural pond as a source of snowmaking for a ski resort); <i>Libby Rod & Gun Club v. Poteat</i> , 457 F. Supp. 1177, 1187-88 (D. Mont. 1978), rev’d in part on other grounds, 594 F.2d 742 (9th Cir. 1979) (Army Corps violated NEPA in an EIS for a hydroelectric dam by only cursorily addressing the alternatives of meeting the Northwest’s energy needs through other sources or conservation.); <i>Northwest Env’tl Defense Center v. Bonneville Power Admin.</i> , 117 F.3d 1520, 1538 (9th Cir. 1997) (“An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action.”)
PO	73	29	Biodiversity Conservation Alliance	For this EIS, the BLM should analyze not only the applicant’s proposed alternative but also lower-impact alternatives that would better preserve the public lands and wildlife within the project area. Alternatives that need to be considered include the use of directional drilling to cluster many wells on fewer wellpads, as well as phased development that governs the pace at which the 4,207 wells can be drilled. It is important to note that the BLM has historically declined to manage either the pattern or pace of oil and gas development for a given project; with the end result that oil and gas development in this particular region has occurred helter-skelter to the detriment of public lands and wildlife.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
PO	73	30	Biodiversity Conservation Alliance	There are a variety of types of directional drilling that allow multiple wells to be clustered on a single pad, thereby reducing the surface impacts of roads, pipelines, and wellpads. Horizontal, S-turn directional, multilateral, and slant wells can be used to accomplish the surface goal of reducing impacts. One method may be more suitable than another in a particular geological environment, but between these methods there will be a directional solution to any oil or gas producing challenge. We say this with great confidence because research into the petroleum engineering literature reveals that directional drilling has been used, and used successfully, in every category of oil, gas, and coalbed methane production. This research is reviewed in the report Drilling Smarter, which is attached to these comments; we incorporate this report
PO	73	31	Biodiversity Conservation Alliance	BCA has also been engaged in talks with Shell on their directional drilling plans on the Pinedale Anticline. This winter, Shell is clustering 20 wells on a single pad, and foresees adding an additional 12 wells to this pad for a final total of 32, to achieve 20-acre downhole spacing over a square mile from a single wellpad. Thus, one wellpad per quarter section is an eminently reasonable maximum that should be needed for complete development of the Hiawatha Field under any circumstances for the remaining life of the field. Lower surface densities are achievable, and should indeed be implemented in this particular EIS to achieve the multiple-use mandate enshrined in FLPMA.
PO	73	32	Biodiversity Conservation Alliance	Rotary steerable directional drilling does not rely on mud motors, and provides a viable solution for drilling directionally in difficult geological situations. This alternative should be thoroughly researched and analyzed for the project area should the proponents raise any concerns about the feasibility of directional drilling. BLM should perform a sound analysis backed by strong evidence on the feasibility of this method prior to rejecting it as an alternative. The assertions of operators (who of course have a conflict of interest over the project's provisions due to their profit motive) should not be accepted without verifiable evidence. Published petroleum engineering science and technical reports that have been subjected to some sort of peer review should suffice to meet this evidentiary threshold.
PO	73	37	Biodiversity Conservation Alliance	In the past, BLM has also adopted many standard conditions of approval and mitigation measures without taking a hard look at whether these measures are effective – numerous oil and gas projects in this region have adopted many of the same mitigation measures over the past twenty years and BLM failed to inventory these sites to measure their effectiveness. 40 C.F.R. § 1502.22 is triggered here. This provision requires “the disclosure and analysis of the costs of uncertainty [and] the costs of proceeding without more and better information.” Southern Oregon Citizens Against Toxic Sprays, Inc. v. Clark, 720 F.2d 1475, 1478 (9th Cir. 1983). “On their face these regulations require an ordered process by an agency when it is proceeding in the face of uncertainty.” Save Our Ecosystems v. Clark, 747 F.2d 1240, 1244 (9th Cir. 1984). This NEPA regulation imposes three mandatory obligations on the BLM in the face of scientific uncertainty: (1) a duty to disclose the scientific uncertainty; (2) a duty to complete independent research and gather information if no adequate information exists unless the costs are exorbitant or the means of obtaining the information are not known; and (3) a duty to evaluate the potential, reasonably foreseeable impacts in the absence of relevant information, using a four-step process. Unless the costs are exorbitant or the means of obtaining the information are not known, the BLM must gather the information in studies or research. 40 C.F.R. § 1502.22. There have been a number of oil and gas projects approved in the Red Desert over the years (totaling over 5,000 wells drilled to date, with 15,000 more in the queue for approval), and monitoring of various resources within these fields has been a common requirement over the past 20 years. That means there is a lot of readily available data out there that BLM must analyze in evaluating the effectiveness of the mitigation measures for the Hiawatha project. Simply listing and not analyzing the effectiveness of these measures also results in the violation of NEPA. See Northwest Indian Cemetery Protective Association v. Peterson, 764 F.2d 581, 588 (9th Cir. 1985), rev'd on other grounds 485 U.S. 439 (1988) (where the court determined that NEPA requires agencies to “analyze the mitigation measures in detail [and] explain how effective the measure would be. ... A mere listing of

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA.").
PO	73	113	Biodiversity Conservation Alliance	<p>The Draft EIS must also comply with the Federal Land Policy and Management Act (FLPMA)</p> <p>FLPMA mandates that the public lands be managed "under principles of multiple use and sustained yield." 43 U.S.C. §1732(a). The term "multiple use" encompasses both mineral development as well as "natural scenic, scientific and historic values." 43 U.S.C. §1702(c). These uses must be weighed so that resources are managed without "permanent impairment of the productivity of the land and the quality of the environment." Id. Moreover, the chosen uses do not have to be ones that "give the greatest economic return." Id. BLM's support of the Proposed Action without adequate assessment, evaluation and planning for mitigating and monitoring of the affects to the cultural resources would violate its multiple use management policy. 43 U.S.C. §1732(a). Undoubtedly, with so little of the planning area even surveyed, the choice to allow such extensive development in a relatively untouched landscape will have lasting detrimental effects to the quality of the cultural environment. In addition, by failing to initially survey to avoid adverse impacts to cultural resources and to study and adopt a meaningful mitigation plan, BLM has violated FLPMA's proscription against "unnecessary or undue degradation of the lands." 43 U.S.C. §1732(b).</p>
PO	73	156	Biodiversity Conservation Alliance	<p>An Amendment is Likely Needed for the Green River RMP</p> <p>It appears likely that the Reasonably Foreseeable Development scenario for the Green River Resource Plan will be exceeded by this project, which means that there will be no supporting programmatic NEPA for this document, in violation of federal law and regulation. The RFD scenario typically has two quite different components: well numbers which were analyzed by the Green River RMP EIS, and acreage of surface disturbance analyzed under the Green River RMP EIS. Acreage of surface disturbance is a measure of roads, wellpads, mines, and other activities that directly cause at least temporary destruction of the land and its value as wildlife habitat, while the number of wells is an index to vehicle traffic (and hence wildlife disturbance) as well as the number of individual air pollutant sources (condensate tanks releasing volatile organic compounds, separators and pumps belching diesel smoke, burners, etc.). The exceedence of either one of these criteria necessitates an RMP amendment before the project can be approved.</p>
PO	73	157	Biodiversity Conservation Alliance	<p>If the Green River RMP is amended, there are a number of items of unfinished business to which the BLM should attend as part of the RMP Amendment. First, the BLM should move forward with ACEC designation for the Monument Valley Management Area, a commitment made in the GRRMP but on which the agency has yet to follow through. Second, the BLM should address citizens' proposed wilderness units along the Kinney Rim (North and South units) and adjacent to Adobe Town. For some of these areas, the BLM has agreed that lands possess all wilderness characteristics, and these lands should be accorded a level of protection. For other lands, the BLM has determined that the lands possess some wilderness characteristics but not others; for these, those wilderness characteristics that are present should be managed for retention and enhancement. Finally, virtually all lands in the citizens' wilderness proposals meet BLM's official criteria as "roadless," and the RMP should be amended pursuant to the new information submitted since the ROD</p>
PO	73	158	Biodiversity Conservation Alliance	<p>If BLM prepares as RMP amendment, we concerned that the scope and structure of this amendment is too narrow to address the increased pressures on the many resources managed by the Rock Springs Field Office. The change in the reasonable foreseeable development (RFD) is likely to result in substantial changes in the consequences for the other resources in the planning area and will necessitate changes in the corresponding management decisions. Based on the BLM's Land Use Planning Handbook and planning regulations, a revision of an entire RMP is appropriate if new information or changes in circumstances "indicate that decisions for an entire plan or a major portion of the plan no</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	longer serve as a useful guide for resource management.” 43 C.F.R. § 1610.6-5; H-1601-1, Section VII.C. In the Rock Springs Field Office, the projected changes in the RFD are an indication of larger changes in circumstances that affect the underpinning of all the management decisions. As such BLM must examine and reconsider protections for lands and new mitigation measures.
PO	73	159	Biodiversity Conservation Alliance	While the current RMP, completed in 1997, may not be so chronologically old as to be out of date, key information underlying the management decisions has changed, both based on new information and due to the projected massive increase in oil and gas development not foreseen during the NEPA analysis for the RMP. Further, BLM is obligated to assess the direct, indirect and cumulative impacts of the range of alternatives for managing oil and gas development on the other resources in the planning area, which includes considering ways to avoid or minimize these impacts. Given the scale of the expected increase in development, the potential impacts will be wide-ranging and can best be considered and managed through a management approach on a similar scale. In order to make the most informed decisions and best fulfill its obligations to manage these public lands for multiple uses, the BLM scope of the plan amendment BLM undertakes must provide the necessary perspective on risks and opportunities in the entire planning area.
PO	73	160	Biodiversity Conservation Alliance	It is imperative that the process take into account the impacts on other resources and provide opportunities to protect those resources. Given the scope of oil and gas development that will be considered for the Rock Springs and Little Snake Field Offices, virtually all of the other resources in the planning area will be affected. The Federal Land Policy and Management Act (FLPMA) requires the BLM to manage the multiple uses and resources of the public lands, which include fish and wildlife, watersheds, scenic values, recreation opportunities, scientific and historic values, and other natural values, such as wilderness characteristics. FLPMA also provides for the agency to do so by excluding or limiting certain uses of these lands. 43 U.S.C. § 1702(c). Under FLPMA, BLM is also obligated to “give priority to the designation and protection of areas of critical environmental concern [ACEC].” 43 U.S.C. § 1712(c)(3). ACECs are areas where special management attention is required “to protect and prevent irreparable damage.” 43 U.S.C. § 1702(a). Protection of existing ACECs and due consideration of proposed ACECs must be explicitly address in this planning process.
PO	73	161	Biodiversity Conservation Alliance	The National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 et seq., dictates that the BLM take a “hard look” at the environmental consequences of a proposed action and the requisite environmental analysis “must be appropriate to the action in question.” <i>Metcalf v. Daley</i> , 214 F.3d 1135, 1151 (9th Cir. 2000); <i>Robertson v. Methow Valley Citizens Council</i> , 490 U.S. 332, 348 (1989). In order to take the “hard look” required by NEPA, BLM is required to assess impacts and effects that include: “ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or
PO	73	162	Biodiversity Conservation Alliance	NEPA further requires that BLM consider a range of management alternatives, including assessment of more environmentally protective approaches, and assess opportunities for mitigating impacts. 40 C.F.R. § 1502.14; <i>Envnt'l Defense Fund., Inc. v. U.S. Army Corps. of Eng'rs</i> , 492 F.2d 1123, 1135 (5th Cir. 1974); see also <i>Or. Envntl. Council v. Kunzman</i> , 614 F.Supp. 657, 659-660 (D. Or. 1985) (stating that the alternatives that must be considered under NEPA are those that would “avoid or minimize” adverse environmental effects).

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
PO	73	163	Biodiversity Conservation Alliance	The consideration of more environmentally protective alternatives and mitigation measures is also consistent with FLPMA's requirement for BLM to "minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved." 43 U.S.C. §1732(d)(2)(a). Further, FLPMA requires that: "In managing the public lands the [Secretary of Interior] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C. §1732(b). In this context, when the imperative language "shall" is used, "Congress [leaves] the Secretary no discretion" in how to administer FLPMA. NRDC v. Jamison, 815 F.Supp. 454, 468 (D.D.C. 1992). BLM's duty to prevent unnecessary or undue degradation under FLPMA is mandatory, and BLM must, at a minimum, demonstrate compliance with the UUD standard. See, Sierra Club v. Hodel, 848 F.2d 1068, 1075 (10th Cir. 1988) (the UUD standards provides the "law to apply" and "imposes a definite
PO	73	164	Biodiversity Conservation Alliance	In the context of the expanded oil and gas program in the Rock Springs Field Office, the impacts are likely to affect the natural resources and values identified in FLPMA and also emphasized by other users of these public lands. Accordingly, the BLM should ensure that the effects of oil and gas development are fully analyzed and that mitigation measures are developed for fragile resources.
PO	73	165	Biodiversity Conservation Alliance	The current proposed planning criteria and other descriptions of this proposed amendment are too narrow – focusing only on the agency's intent to approve more oil and gas drilling without due regard for its overarching responsibility to manage the lands of the Rock Springs Field Office for multiple use and sustained yield. The Federal Register notice states that the amendment is "to modify the level of oil and gas development" and then sets out planning criteria that purport "to avoid unnecessary data collection and analyses, and to ensure the plan is tailored to issues." 71 Fed.Reg. 34388. Given the structure of the amendment to date, the fact that the same oil and gas companies seeking approval of increased development are responsible for selecting and paying a contractor to prepare the Amendment and underlying NEPA documents, and the existing Memorandum of Understanding with eight oil and gas companies, a clear statement of purpose and need and description of planning criteria that explicitly acknowledge the other values of these lands and
PO	73	166	Biodiversity Conservation Alliance	<p>Recommendations: An amendment of the Green River RMP should be completed to provide for a full assessment of the impacts of oil and gas development on the multiple resources and uses of the planning area and consideration of alternatives to provide for true multiple use and sustained yield. In developing and evaluating potential management alternatives, BLM should bear in mind the concept of multiple use, as defined above, in order to inventory and safeguard resources such as scenic values, cultural resources and wildlife habitat and create ACECs.</p> <p>At a minimum, the purpose and need and the planning criteria for an RMP amendment should clearly provide for:</p> <ul style="list-style-type: none"> - inventory and protection of the many resources and uses that could be affected the increase in oil and gas development, including wilderness values and potential ACECs, including ACECs for prairie dog complexes and the MVMA - development of management alternatives that provide for special designations and protective prescriptions - consideration of new information and changed circumstances that require changes in management from the current Green River RMP - thorough evaluation of potential impacts from increased oil and gas development and development of appropriate mitigation measures for the range of values present in the planning area

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
PO	73	167	Biodiversity Conservation Alliance	<p>A. FLPMA REQUIRES PROTECTION OF NATURAL RESOURCES FLPMA imposes a duty on BLM to identify and protect the many natural resources found in the public lands governed by the Rock Springs Field Office. FLPMA requires BLM to inventory its lands and their resource and values, "including outdoor recreation and scenic values." 43 U.S.C. § 1711(a). FLPMA also obligates BLM to take this inventory into account when preparing land use plans, using and observing the principles of multiple use and sustained yield. 43 U.S.C. § 1712(c)(4); 43 U.S.C. § 1712(c)(1). Through management plans, BLM can and should protect wildlife, scenic values, recreation opportunities and wilderness character in the public lands through various management decisions, including by excluding or limiting certain uses of the public lands. See 43 U.S.C. § 1712(e). This is necessary and consistent with the definition of multiple use, which identifies the importance of various aspects of wilderness characteristics (such as recreation, wildlife, natural scenic values) and requires BLM's consideration of the relative values of these resources but "not necessarily to the combination of uses that will give the greatest economic return." 43 U.S.C. § 1702(c).</p> <p>Recommendation: The BLM must uphold its responsibility to protect the abundant natural values present in the Rock Springs Field Office when developing management alternatives in the Green River RMP Amendment and evaluating their environmental consequences, as required by both FLPMA and NEPA, as discussed in additional detail above in the context of the appropriate scope of this planning process.</p>
PO	73	168	Biodiversity Conservation Alliance	<p>B. PROTECTION OF WILDERNESS CHARACTER The lands governed by the Green River RMP, and within the Hiawatha Planning Area contain pristine wildlands, including those identified and discussed in detail in the Conservationists' Wilderness Proposal (CWP) and in our proposal for protection of citizen-proposed wilderness for the Kinney Rim North and South Units, which was submitted under separate cover in 2003. As noted above, FLPMA mandates that BLM inventory the resources of the public lands, their resources and values and then, in the land use planning process, including amendments to RMPs, requires that BLM take into account the inventory and determine which multiple uses are best suited to which portions of the planning area. 43 U.S.C. §§ 1711, 1712. As discussed in detail in the cover letter with our proposals for protection of citizen-proposed wilderness, BLM's mandate of multiple use and sustained yield, as well as other relevant law and BLM's current guidance, provides for inventory and protection of wilderness values. BLM is obligated to inventory for and consider a range of alternatives to protect lands with wilderness characteristics.</p> <p>1. Wilderness character is a valuable resource and important multiple use of the lands governed by the Green River RMP Amendment BLM has identified "wilderness characteristics" to include naturalness or providing opportunities for solitude or primitive recreation. See, Instruction Memoranda (IMs) 2003-274 and 2003-275. These values should also be identified and protected through this planning process. BLM should recognize the wide range of values associated with lands with wilderness character:</p> <p>a. Scenic values – FLPMA specifically identifies "scenic values" as a resource of BLM lands for purposes of inventory and management (43 U.S.C. § 1711(a)), and the unspoiled landscapes of lands with wilderness characteristics generally provide spectacular viewing experiences. The scenic values of these lands will be severely compromised if destructive activities or other visual impairments are permitted through oil and gas development. For example, air pollution from compressor stations include precursors to ozone, which when combined with the dust from truck traffic on roads can decrease visibility and hence scenic quality. Such impacts must be accounted for and scenic values protected.</p> <p>b. Recreation – FLPMA also identifies "outdoor recreation" as a valuable resource to be inventoried and managed by BLM. 43 U.S.C. § 1711(a). Lands with wilderness characteristics provide opportunities for primitive recreation, such as hiking, camping, hunting and wildlife viewing. Impacts to primitive recreation will accrue both from the noise from gas facilities and the presence of motor vehicles (those servicing the natural gas drilling operations, as well as the motorized recreation which is likely to take advantage of the gas development roads). Most, if not all primitive recreation experiences</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
		Org.	<p>will be foreclosed or severely impacted if the naturalness and quiet of these lands are not preserved. Wildlife habitat and riparian areas – FLPMA acknowledges the value of wildlife habitat found in public lands and recognizes habitat as an important use. 43 U.S.C. § 1702(c). Due to their unspoiled state, lands with wilderness characteristics provide valuable habitat for wildlife, thereby supporting additional resources and uses of the public lands. As part of their habitat, many species are also dependent on riparian and other wetland habitats, especially during either seasonal migrations or seasons and years when surrounding habitats are dry and unproductive. Wilderness quality lands support biodiversity, watershed protection and overall healthy ecosystems. The low route density, absence of development activities and corresponding dearth of motorized vehicles, which are integral to wilderness character, also ensure the clean air, clean water and lack of disturbance necessary for productive wildlife habitat and riparian areas (which support both wildlife habitat and human uses of water).</p> <p>Further, inventorying lands with wilderness characteristics will also provide important data on existing large blocks of habitat and how BLM can restore these blocks of habitat to better match the historic range of variability. Swanson et al. (1994) contend that managing an ecosystem within its range of variability is appropriate to maintain diverse, resilient, productive, and healthy ecosystems for viable populations of native species. Using the historical range of variability, they believe, is the most scientifically defensible way to meet society's objective of sustaining habitat. Patrick Daigle and Rick Dawson, Extension Note 07; Management Concepts for Landscape Ecology (Part 1 of 7). October 1996. http://www.for.gov.bc.ca/hfd/pubs/docs/en/en07.pdf; citing Swanson, F. J.; Jones, J. A.; Wallin, D. O.; Cissel, J. H. 1994. Natural variability--implications for ecosystem management. In: Jensen, M. E.; Bourgeron, P. S., tech. eds. Eastside Forest Ecosystem Health Assessment--Volume II: Ecosystem management: principles and applications. Gen. Tech. Rep. PNW-GTR-318. Portland, OR: U.S. Dept. of Agriculture, Forest Service, Pacific Northwest Research Station: pp 89-106. Identifying, restoring and protecting substantial roadless areas in the lands governed by the Green River RMP Amendment can provide crucial benefits to wildlife.</p> <p>d. Cultural resources – FLPMA also recognizes the importance of “historical values” as part of the resources of the public lands to be protected. 43 U.S.C. § 1702(c). The lack of intensive human access and activity on lands with wilderness characteristics helps to protect these resources.</p> <p>e. Economic benefits – The recreation opportunities provided by wilderness quality lands also yield direct economic benefits to local communities. According to the U.S. Fish & Wildlife Service, in 2001 State residents and non-residents spent \$2 billion on wildlife recreation in Colorado. (USFWS 2002, National Survey of Hunting, Fishing and Wildlife-associated Recreation - http://www.census.gov/prod/2002pubs/fhw01-co.pdf). Nationwide non-motorized recreation is a \$760 billion dollar industry that is dependent on protected public lands (Outdoor Industry Foundation, 2006). In addition, local communities that protect wildlands reap measurable benefits in terms of employment and personal income. For instance, a recent report by the Sonoran Institute (Sonoran Institute 2004, Prosperity in the 21st Century West -The Role of Protected Public Lands) found that: Protected lands have the greatest influence on economic growth in rural isolated counties that lack easy access to larger markets. From 1970 to 2000, real per capita income in isolated rural counties with protected land grew more than 60 percent faster than isolated counties without any protected lands. These findings confirm earlier research, showing that wilderness is in fact beneficial for local economies. Residents of counties with wilderness cite wilderness as an important reason why they moved to the county, and long-term residents cite it as a reason they stay. Recent survey results also indicate that many firms decide to locate or stay in the West because of scenic amenities and wildlife-based recreation, both of which are strongly supported by wilderness areas. (Morton 2000, Wilderness: The Silent Engine of the West's Economy). Other “non-market” economic values arise from the ability of wildlands to contribute to recreation and recreation-related jobs, scientific research, scenic viewsheds, biodiversity conservation, and watershed protection. (Morton 1999, The Economic Benefits of Wilderness: Theory and Practice; Loomis 2000, Economic Values of Wilderness Recreation and Passive Use: What We Think We Know at the Turn of the 21st Century). All of these economic benefits are dependent upon adequate protection of the wilderness characteristics of the lands.</p> <p>f. Quality of life – The wildlands located within the Rock Springs Field Office help to define the character of this area and are an important component of the quality of life for local residents and future generations, providing wilderness values in</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
		Org.	<p>proximity to burgeoning urban and suburban areas. Their protection enables the customs and culture of this community to continue.</p> <p>g. Balanced use – The vast majority of BLM lands are open to motorized use and development. FLPMA recognizes that “multiple use” of the public lands requires “a combination of balanced and diverse resource uses” that includes recreation, watershed, wildlife, fish, and natural scenic and historical values (43 U.S.C. § 1702(c)). FLPMA also requires BLM to prepare land use plans that may limit certain uses in some areas (43 U.S.C. § 1712). Many other multiple uses of public lands are compatible with protection of wilderness characteristics – in fact, many are enhanced if not dependent on protection of wilderness qualities (such as primitive recreation and wildlife habitat). Protection of wilderness characteristics will benefit many of the other multiple uses of BLM lands, while other more exclusionary uses (such as off-road vehicle use and timber harvesting) will still have adequate opportunities on other BLM lands.</p> <p>2. BLM must consider alternatives for managing lands managed by the Green River RMP Amendment to protect their wilderness characteristics.</p> <p>The range of alternatives is “the heart of the environmental impact statement.” 40 C.F.R. § 1502.14. NEPA requires BLM to “rigorously explore and objectively evaluate” a range of alternatives to proposed federal actions. See 40 C.F.R. §§ 1502.14(a) and 1508.25(c).</p> <p>NEPA’s requirement that alternatives be studied, developed, and described both guides the substance of environmental decision-making and provides evidence that the mandated decision-making process has actually taken place. Informed and meaningful consideration of alternatives -- including the no action alternative -- is thus an integral part of the statutory scheme.</p> <p>Bob Marshall Alliance v. Hodel, 852 F.2d 1223, 1228 (9th Cir. 1988), cert. denied, 489 U.S. 1066 (1989) (citations and emphasis omitted).</p> <p>An agency violates NEPA by failing to “rigorously explore and objectively evaluate all reasonable alternatives” to the proposed action. City of Tenakee Springs v. Clough, 915 F.2d 1308, 1310 (9th Cir. 1990) (quoting 40 C.F.R. § 1502.14). This evaluation extends to considering more environmentally protective alternatives and mitigation measures. See, e.g., Kootenai Tribe of Idaho v. Veneman, 313 F.3d 1094, 1122-1123 (9th Cir. 2002) (and cases cited therein); see also Env’t Defense Fund., Inc. v. U.S. Army Corps. of Eng’rs, 492 F.2d 1123, 1135 (5th Cir. 1974); City of New York v. Dept. of Transp., 715 F.2d 732, 743 (2nd Cir. 1983) (NEPA’s requirement for consideration of a range of alternatives is intended to prevent the EIS from becoming “a foreordained formality.”); Utahns for Better Transportation v. U.S. Dept. of Transp., 305 F.3d 1152 (10th Cir. 2002), modified in part on other grounds, 319 F.3d 1207 (2003); Or. Env’t. Council v. Kunzman, 614 F.Supp. 657, 659-660 (D. Or. 1985) (stating that the alternatives that must be considered under NEPA are those that would “avoid or minimize” adverse environmental effects).</p> <p>NEPA requires that an actual “range” of alternatives is considered, such that the Act will “preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e. the applicant’s proposed project).” Colorado Environmental Coalition v. Dombeck, 185 F.3d 1162, 1174 (10th Cir. 1999), citing Simmons v. United States Corps of Engineers, 120 F.3d 664, 669 (7th Cir. 1997). This requirement prevents the EIS from becoming “a foreordained formality.” City of New York v. Department of Transp., 715 F.2d 732, 743 (2nd Cir. 1983). See also, Davis v. Mineta, 302 F.3d 1104 (10th Cir. 2002).</p> <p>Given the magnitude of the potential impacts of the oil and gas development under consideration in the Green River RMP Amendment and the information compiled by the public regarding lands with wilderness characteristics, the range of alternatives for these lands should include alternatives to protect their wilderness values. This range of alternatives is also consistent with BLM’s FLPMA obligations to inventory its lands and their resources, “including outdoor recreation and scenic values” (43 U.S.C. § 1711(a)), which by definition includes wilderness character. FLPMA also obligates BLM to take this inventory into account when preparing land use plans, using and observing the principles of multiple use and sustained yield. 43 U.S.C. § 1712(c)(4); 43 U.S.C. § 1712(c)(1). Through management plans, BLM can and should protect wilderness character and the many uses that wilderness character provides on the public lands through various</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
		Org.	<p>management decisions, including by excluding or limiting certain uses of the public lands. See, 43 U.S.C. § 1712(e). This is necessary and consistent with the definition of multiple use, which identifies the importance of various aspects of wilderness character (such as recreation, wildlife, natural scenic values) and requires BLM's consideration of the relative values of these resources but "not necessarily to the combination of uses that will give the greatest economic return." 43 U.S.C. § 1702(c). BLM should consider designating new Wilderness Study Areas.</p> <p>We are aware of the April 2003 settlement agreement (Utah Settlement) between Secretary of the Interior Norton and the State of Utah (in which BLM abdicated its authority to designate any additional Wilderness Study Areas (WSAs)), and we maintain that this agreement is invalid and will ultimately be overturned in pending litigation.</p> <p>The federal court in Utah revoked its approval of the Utah Settlement, stating that its approval of the initial settlement was never intended to be interpreted as a binding consent decree. [Salt Lake Tribune August 10, 2005: "Wilderness Deal No Longer OK with Judge," attached electronically]. Recognizing that the court's decision undermined the legal ground for the Utah Settlement, the State of Utah and the Department of Interior have now formally withdrawn the settlement as it was originally submitted. See, Motion to Stay Briefing and for a Status Conference, September 9, 2005, attached electronically. This casts serious doubt upon BLM's current policy not to consider designating new WSAs. Because the State of Utah and the Department of Interior have withdrawn their settlement and do not intend to seek a new consent decree, there is currently no binding consent decree and the BLM has not even issued any updated guidance seeking to continue applying this misguided, and illegal, policy.</p> <p>Recommendation: The BLM can and should continue to designate new WSAs in this planning process, including the areas identified with this submission. Further, if BLM fails to fulfill these obligations, it risks violating both FLPMA and NEPA, and jeopardizing the validity of this entire planning process.</p> <p>b. BLM should also consider other management alternatives for protecting lands with wilderness characteristics. The Utah Settlement does not affect BLM's obligation to value wilderness character or, according to BLM directives, the agency's ability to protect that character, including in the development of management alternatives. In fact, BLM has not only claimed that it can continue to protect wilderness values, but has also committed to doing so. On September 29, 2003, BLM issued IMs 2003-274 and 2003-275, formalizing its policies concerning wilderness study and consideration of wilderness characteristics in the wake of the Utah Settlement. In the IMs and subsequent public statements, BLM has claimed that its abandonment of previous policy on WSAs would not prevent protection of lands with wilderness characteristics. The IMs contemplate that BLM can continue to inventory for and protect land "with wilderness characteristics," such as naturalness or providing opportunities for solitude or primitive recreation, through the planning process. The IMs further provide for management that emphasizes "the protection of some or all of the wilderness characteristics as a priority," even if this means prioritizing wilderness over other multiple uses. This guidance does not limit its application to lands suitable for designation of WSAs; for instance, the guidance does not include a requirement for the lands at issue to generally comprise 5000-acre parcels or a requirement that the lands have all of the potential wilderness characteristics in order to merit protection. IM 2003-274 states that "BLM may continue to inventory public lands for resource or other values, including wilderness characteristics" and that the agency can "manage them using special protections to protect wilderness characteristics." (emphasis added). Further, IM 2003-275, Change 1, reads: The BLM can make a variety of land use plan decisions to protect wilderness characteristics, such as establishing Visual Resource Management (VRM) class objectives to guide the placement of roads, trails, and other facilities; establishing conditions of use to be attached to permits, leases, and other authorizations to achieve the desired level of resource protection; and designating lands as open, closed, or limited to Off Highway Vehicles (OHV) to achieve a desired visitor experience. (emphasis added). Accordingly, administrative protection can and should be considered for lands not currently protected. The Draft RMP Amendment should also consider management alternatives that provide administrative protection for the wilderness characteristics of those lands currently designated as WSAs if they are not ultimately designated as Wilderness by Congress; their wilderness characteristics are already acknowledged by the BLM.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>In an April 11, 2003, letter to various Senators, including Senator Craig Thomas (WY), then-Secretary of the Interior Gale Norton stated: "The Department stands firmly committed to the idea that we can and should manage our public lands to provide for multiple use, including protection of those areas that have wilderness characteristics." The letter also stated that "the government can identify, or 'inventory' lands . . . for wilderness values" and manage them through different designations which would be distinguished from the "limitation of the 1964 Wilderness Act, which only allows roadless areas greater than 5000 acres to be congressionally designated." (copy attached electronically for your reference). Similarly, in a February 12, 2004, letter to William Meadows, President of The Wilderness Society (copy attached electronically for your reference), then-Assistant Secretaries of the Interior Rebecca Watson and Lynn Scarlett stated that "through the land use planning process, BLM uses the ACEC designation or other management prescriptions to protect wilderness characteristics or important natural or cultural resources."</p> <p>BLM's Arizona State Office has recently issued guidance that elaborates upon this guidance by providing for identification of lands with wilderness characteristics and development of management prescriptions to protect and enhance these values (IM No. AZ-2005-007 – attached electronically for your reference). The recently-released Draft RMP Amendment for the Arizona Strip (excerpts attached electronically for your reference) includes land use allocations for lands with wilderness characteristics in every alternative and sets out protective management prescriptions (Table 2.10). This RMP Amendment also includes a detailed discussion of how BLM identified and assessed wilderness characteristics and the need for protective management (Appendix 3.D). This process is consistent with FLPMA's direction that BLM inventory for the many values of the public lands and consider ways to protect them (i.e., not all uses are appropriate in all places) in the RMP Amendment. 43 U.S.C. §§ 1711, 1712.</p> <p>Other RMPs and RMP Amendments that are being prepared in Arizona, Colorado and Wyoming also include identification of lands with wilderness characteristics and include management of certain areas to maintain and enhance these values in management alternatives under consideration. For instance, the Draft RMP Amendment for the Roan Plateau (prepared by BLM's Glenwood Springs, (CO) Field Office, excerpts attached electronically) includes at least one alternative that manages certain areas "to protect and maintain wilderness characteristics (naturalness, roadlessness, and outstanding opportunities for solitude" as a priority over other uses (pp. 2-53 through 2-54). The Roan Draft RMP Amendment recognizes that such management is consistent with the Utah Settlement, specifically stating that while BLM will not designate new WSAs, BLM can pursue the "protection and management of wilderness characteristics" (p. 1-5) and provides specific management prescriptions for protecting these characteristics (Appendix G). Also, in its Draft Alternatives for the Little Snake (CO) Field Office RMP Amendment, the BLM has inventoried for and identified proposed protective designations (and management prescriptions) for both "Lands With Wilderness Character Outside Existing WSAs" and "Lands With Backcountry Characteristics Outside Existing WSAs" (pp. 71-76, available on-line at http://nwcoss.org/Resources/BLM%20Documents/BLM%20Final%20Alternatives%209-30-05.pdf and attached electronically).</p> <p>In a recent decision, a federal court found that BLM's failure to re-inventory lands for wilderness values and to consider the potential impact of decisions regarding management of a grazing allotment violated its obligations under NEPA and FLPMA. In <i>Oregon Natural Desert Association v. Rasmussen</i>, CV 05-1616-AS, Findings and Recommendations (D.Or. April 20, 2006 – copy attached electronically), the Oregon Natural Desert Association (ONDA) had submitted an updated inventory of wilderness values, but BLM declined to "revisit" its previous inventory or to consider the potential damage to wilderness values from the proposed grazing management decisions. The court found that BLM had violated NEPA, by failing to consider significant new information on wilderness values and potential impacts on wilderness values, and had also failed to meet its obligations under FLPMA, by failing to engage in a continuing inventory of wilderness values. The court concluded:</p> <p>The court finds BLM did not meet its obligation under NEPA simply by reviewing and critiquing ONDA's work product. It was obligated under NEPA to consider whether there were changes in or additions to the wilderness values within the East-West Gulch, and whether the proposed action in that area might negatively impact those wilderness values, if they exist. The court finds BLM did not meet that obligation by relying on the one-time inventory review conducted in 1992. Such reliance is not consistent with its statutory obligation to engage in a continuing inventory so as to be current on</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>changing conditions and wilderness values. 43 U.S.C. § 1711(a). BLM's issuance of the East-West Gulch Projects EA and the accompanying Finding of No Substantial Impact (FONSI) in the absence of current information on wilderness values was arbitrary and capricious, and, therefore, was in violation of NEPA and the APA. (emphasis added)</p> <p>As part of this RMP Amendment, BLM is similarly obligated to both consider additions to wilderness values and evaluate the potential impacts on those wilderness values from its management decisions. In addition, the information we have submitted regarding citizen-proposed wilderness constitutes significant new information that must be addressed in this RMP Amendment. This information has not yet been analyzed in the existing Green River RMP, so NEPA requires analysis of the potential environmental direct, indirect and cumulative effects of oil and gas development on these areas and consideration of protection for them. See, 40 C.F.R. § 1502.9(c); Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 374 (1989). In a recent decision, the U.S. District for the District of Utah found that information regarding wilderness characteristics that was not considered in the existing land use plan was: a textbook example of significant new information about the affected environment (the wilderness attributes and characteristics of the Desolation Canyon, Floy Canyon, Flume Canyon, Coal Canyon, and Flat Tops unit) that would be impacted by oil and gas development; information that was not reflected in BLM's existing NEPA analyses.</p> <p>Southern Utah Wilderness Alliance v. Norton, Case No. 2:04-CV-574, Memorandum Decision and Order (D.Utah August 2, 2006 – copy attached electronically). The BLM is required to address this new information in its planning efforts, such as the current Green River Resource Area RMP Amendment. To ensure that wilderness values receive proper and sufficient attention as a critical aspect of land management in preparation of the Green River RMP Amendment, BLM must address wilderness as a separate and unique issue including in its Planning Criteria, in the Analysis of the Management Situation and in each section of the RMP Amendment. Protection of lands with wilderness character should be identified as a major issue in the scoping report. This will assist the public in understanding the values of wilderness-quality lands and the potential effects of other multiple uses on wilderness character, as well as in communicating comments or concerns regarding the management of these lands to BLM. Because comments on protection of wilderness values will be clearly identified, BLM will be in a better position to clarify any misconceptions and provide complete responses. In preparing the revised RMP Amendment and accompanying EIS, BLM should clearly present management alternatives in the context of protecting wilderness character and analyze environmental consequences to that character. The protection of wilderness character should also be identified as one of the major scoping issues in the RMP Amendment. BLM has been aware of these proposed wilderness areas for some time, and the agency must attend to them. In the "Alternatives" section of the RMP Amendment, BLM must include various ways to protect these lands in each of the management alternatives. In addition to considering designation of new WSAs, BLM should propose protective management prescriptions or other protective status (including mineral withdrawals, non-motorized recreation prescriptions, ACEC designations, and prohibitions on new road construction and erection of structures such as cell towers) for these lands. The Alternatives section must also discuss the implications of each alternative for the wilderness-quality lands governed by the Green River RMP Amendment. Finally, BLM must specify the "Environmental Consequences" of the resource management decisions on the wilderness-quality lands in the planning areas. This discussion should include, but not be limited to, an analysis of the cumulative impacts of other activities (including those undertaken by non-federal entities) within the planning areas on these unique lands. In short, in every major section of the RMP Amendment, BLM must address wilderness-quality lands and citizen-proposed wilderness areas. BLM should then take appropriate actions to protect wilderness character in the preferred management alternative.</p> <p>We look forward to seeing inventory for and protection of wilderness qualities comprehensively addressed as the preparation of the Green River RMP Amendment proceeds. Recommendations: BLM should include protection of lands with wilderness characteristics in the RMP Amendment's management alternatives and thoroughly analyze this issue throughout the planning process. To ensure that wilderness Finally, if an RMP Amendment is pursued, then a new Notice of Intent must be published in the Federal Register, and a new Scoping Notice must be circulated</p>
PO	73	170	Biodiversity Conservation	

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Organization	Comment Text
PO	73	171	Biodiversity Conservation Alliance	<p>We appreciate the opportunity to comment on the 4,207-well project proposed by the BLM in the Hiawatha project area. If this project is to go forward, it should implement the most environmentally preferable methods available, irrespective of financial cost. We urge the BLM to make radical changes from its past policies so that the project is done right, limiting drilling to contexts where it is compatible with protecting wildlands, wildlife, and public recreation. It is our hope that BLM will take the common-sense approach of excluding the Kinney Rim citizens' proposed wilderness from the project area and apply best management practices to protect the overall landscape, historical and cultural features, and sensitive wildlife habitats, and thereby avoid future legal entanglements that would be time-consuming for us, for the BLM, and for the Operators. Please keep us informed of all future developments in regard to this project.</p>
PO	74	1	United States Environmental Protection Agency, Region 8	<p>The Purpose and Need for a proposal is the basis for identifying all feasible alternatives that undergo environmental impact analyses in a NEPA document. All feasible alternatives that would satisfy the Purpose and Need should be given equal consideration and analysis. The alternatives analysis "should present the environmental impacts of the proposed action and the alternatives in a comparable form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public" (40 CFR 1502.14). The EIS should include, but not be limited to, a "no-build" alternative. Several alternatives ranging from most protective of environmental and social impacts, to the action as proposed by the Operators should be included. At least one alternative should emphasize conservation of natural resources, particularly those deemed significant, rare, and/or of high public value.</p> <p>The EIS should provide a detailed and accurate description of the various components of the proposed project. All individual components (e.g., buildings, equipment, and project foot print) that make up the well development areas, or any other project infrastructure, should be identified. In addition, the EA should include detailed project location maps, and figures depicting all development areas. In order for the public and agency reviewers to understand the degree of direct, indirect and cumulative impacts (impacts) of the project, the EIS should include a detailed characterization of the affected environment. This would include, but is not limited to, providing detailed descriptions of the resources in the study area supported with photos and figures/maps that depict the various alternatives in relation to the study area resources. This information should include, but need not be limited to, the identification of all wetlands, streams/rivers, lakes, floodplains, forested or treed land, environmental justice communities, residences, Native American tribe and resource concerns, and historic/cultural resources.</p>
PO	74	20	United States Environmental Protection Agency, Region 8	<p>Measures Applied in the Roan Plateau FEIS</p> <p>The Roan Plateau FEIS includes some innovative protection measures that are worth considering for the Hiawatha project. Key components of the Roan plan include: a minimum separation of one-half mile between drill pads (except where a closer distance would provide for greater environmental protection); a maximum surface density of one pad per 160 acres; focusing development on specific areas while putting most of the ecologically, hydrologically, visually, and recreationally sensitive areas (such as wetland/riparian areas, wildlife habitat and migration routes, etc.) off limits to surface disturbance; directional drilling and multiple well pad requirements; limiting the amount of disturbed land to 350 acres at any one time; and restricting drilling operations to only one of six "phased development areas" at a time, while prohibiting operations in another development area if the resultant surface disturbance on the plateau would exceed the 350 -acre limit. These elements should help encourage rapid reclamation, reduce the need for new roads, and promote extensive use of clustered multi-well directional drilling development to reduce the number of well pads, resulting in significant watershed, wildlife, wetlands, airshed, and viewshed protection. In the case of the Roan project area, BLM estimates that 1570 wells will be drilled from just 193 pads. With the extensive use of directional drilling, BLM estimates that more than 90 percent of the Federal mineral estate could be accessed for oil and gas recovery with long-term ground disturbance of just 812 acres. The recovery numbers for the Hiawatha project might not be as high, but should be evaluated. While the Hiawatha area is almost all leased for oil and gas development already, the small number of major operators connected with the project could make many of the above measures applicable.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
PO	76	2	Sweetwater County Board of County Commissioners	While as a Board of County Commissioners, we believe in the importance of the development of natural gas resources within Sweetwater County, we also strongly encourage Questar Exploration and Development Company to abide by the recommendations of the Hiawatha EIS Cooperating Agency Working Group. Special considerations should be given to the comments submitted to your office by the Sweetwater County Planning Department.
PO	77	1	Individual	The EIS must address the effects of drilling and productions operations on a cumulative basis as opposed to a well site or individual field basis. Certain degradation of air, land, and water quality has already occurred from existing operations. Full field development will add to this degradation. Alternatives developed must address the cumulative effects of all operations, both existing and proposed.
PO	80	25	Wyoming Outdoor Council	Last, we would note that the Federal Land Policy and Management Act provides that BLM "shall allow an opportunity for public involvement and...shall establish procedures...to give...the public adequate notice and an opportunity to comment on and participate in the formulation of ...programs relating to the management of the public lands." 43 U.S.C. § 1712(f). Thus, in addition to engaging in the analysis required by the Mineral Leasing Act if an EPA categorical exclusion is invoked, BLM must also provide for public involvement and comment on APDs. The EIS and ROD should acknowledge
PO	80	28	Wyoming Outdoor Council	<p>We ask that the purpose and need for this project be carefully defined and that it guide the EIS. Specifically, we ask that the purpose of this project not be defined so as to allow lease holders to exercise their lease rights, for example. This is far too narrow a definition of what is being sought to be achieved here. It was unfortunately on display in the definition of the purpose and need in the Draft EIS for the Atlantic Rim Project, and we ask that that myopic view not be repeated here. As discussed above, BLM retains many and substantial rights even after a lease is issued, and it operates under substantial obligations to protect the natural environment pursuant to literally dozens of environmental statutes. That broader framework cannot be lost sight of by defining the purpose and need for this project in an unduly constrained way. At a minimum we ask that BLM provide a full explanation for its definition of the purpose and need of this project, and we specifically ask that that discussion address the issues raised in Part III of these comments.</p> <p>It is our view that the purpose and need for this project should be stated like this: "The purpose and need for this project is to leave the existing landscape in as unimpaired and unchanged condition as possible while allowing holders of oil and gas leases to develop those leases to the extent permitted by their leases and other law." We believe maximizing environmental protection while still allowing development is clearly the overall "take home message" from federal law and policy; any definition of the purpose and need being just to allow for exercise of lease rights is far off the mark.</p>
PO	84	16	Wyoming Department of Agriculture	Peer-reviewed science should underlie decisions and the EIS needs to identify the science that supports the decisions and discussions regarding this project.
PO	84	17	Wyoming Department of Agriculture	Decisions in the proposed plan should allow BLM officials, grazing permittees, and company officials the opportunity throughout the life of this plan to work cooperatively and the flexibility to make the best site-specific, case-by-case decisions that are in the best interests of the affected resources and citizens

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
PO	86	1	National Wildlife Federation, Rocky Mountain Natural Resource Center	<p>The “scoping” stage of preparing an EIS requires BLM to make two determinations: (1) what is the scope of the project – in this case the RMP – to be analyzed in the EIS, and (2) what are the issues that will be analyzed “in depth” in the EIS. 40 C.F.R. § 1501.7(a). In addition, other environmental reviews (such as Biological Assessments and consultation for species listed pursuant to the Endangered Species Act) should be identified during the scoping process so that they can be completed concurrently with the EIS and integrated with it.</p>
PO	86	4	National Wildlife Federation, Rocky Mountain Natural Resource Center	<p>The Federal Land Policy and Management Act of 1976 (“FLPMA”) requires that decisions, permits, and other authorizations conform to the approved resource management plan (“RMP”). Specifically, FLPMA provides that “[t]he Secretary shall manage the public lands under principles of multiple use and sustained yield, in accordance with the land use plans developed by him under section 1712 of this title.” 43 U.S.C. § 1732(a). After the development of an RMP, “[a]ll future resource management authorizations and actions . . . shall conform to the approved plan.” 43 C.F.R. § 1610.5-3(a). “Conformity” means, “that a resource management action shall be specifically provided for the plan, or if not specifically mentioned, shall be clearly consistent with the terms, conditions, and decisions of the approved plan or plan amendment. 43 C.F.R. § 1601.0-5(b).</p> <p>Although the Little Snake RMP is currently under revision, FLPMA directs the BLM to develop and maintain comprehensive Resource Management Plans (RMPs) that govern all aspects of land management, and any land use decisions must be consistent with RMPs. 43 U.S.C § 1712(a) and 43 U.S.C. § 1732(a) (2000). The pendency of a revision process cannot authorize disregard of the requirement that specific actions must conform to the existing plan. 43 C.F.R § 1610.5-3(a) provides that “[a]ll future resource management authorizations and actions . . . shall conform to the approved plan.” Nothing either in that section or in 43 C.F.R. § 1610.5-6, addressing plan revisions, can possibly suggest that this rule becomes inapplicable prior to the approval of a new plan, simply by virtue of the fact that the revision is “in process”. The mere fact that a plan revision is “in process,” a process which may take many years, should not authorize the BLM to disregard its obligations under the existing plan. Until such time as a final record of decision is issued revising or amending the Little Snake RMP, BLM actions within the resource area must still be consistent with the plan now in place.</p> <p>In addition, by proceeding with the Hiawatha project prior to completion of the RMP revision, the BLM should not risk impermissibly prejudging the outcome of the RMP revision process. All alternatives should retain sufficient management discretion for BLM to permit development of the gas resource without improperly committing itself to wholesale conversion of the area from lands containing wildlife habitat, rangeland, watershed, and energy resources, into a single-use zone effectively committed to natural gas extraction and to the exclusion of most other uses. We urge the BLM not to preemptively restrict its options in the RMP revision by, in a decision on the Hiawatha project, foreclosing any</p>
PO	86	5	National Wildlife Federation, Rocky Mountain Natural Resource Center	<p>For many years, it has been the official policy of the State of Wyoming that there should be no net loss of important wildlife habitats within the state. In August of 2004, the Wyoming Game and Fish Commission adopted guidelines on the minimum mitigation measures required to conserve crucial wildlife habitats impacted by oil and gas development. We believe that the State of Wyoming and its citizens deserve an explanation for why BLM fails to fully implement recommendations of the Wyoming Game and Fish Commission regarding protection of crucial big game habitats. The expertise of the State’s fish and wildlife agencies is entitled to serious consideration. Moreover, hunting and other forms of wildlife recreation are important components of Wyoming’s natural heritage and its economy. FLPMA specifically requires that BLM’s RMPs be consistent to the maximum extent possible with state plans and policies. This DEIS should also reflect the State of Wyoming’s “no net loss” standard and its minimum recommendations for crucial habitat conservation.</p> <p>FLPMA requires that BLM’s land use plans be consistent with officially approved resource related plans of State and local governments as well as Indian tribes. 43 U.S.C. § 1702(c)(9); see also 43 C.F.R. § 1610.3-2; BLM Handbook H-1601-1 at II-1 (“Land use plans must be consistent with State and local plans to the maximum extent consistent with Federal law.”)</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
PO	86	9	National Wildlife Federation, Rocky Mountain Natural Resource Center	<p>It is the official policy of the Wyoming Game and Fish Commission that crucial habitat for wildlife species within the State should be managed to prevent "any loss of habitat function." Wyoming Game and Fish Policy No. VII H (April 28, 1998) at 138. Some modification of crucial habitat is permitted but only if "habitat function is maintained (i.e., the location, essential features, and species supported are unchanged)." Id. In August 2004, the Wyoming Game and Fish Commission adopted guidelines on the minimum mitigation measures required to conserve crucial wildlife habitats impacted by oil and gas development.</p> <p>For the EIS to meet its objectives of consistency with state plans and policies, avoidance of unnecessary and undue degradation, and compliance with RMP mandates, the EIS needs to evaluate all alternatives for consistency with the requirements of the Wyoming Game and Fish Department's 2004 Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats.</p> <p>Regulations adopted by the Council on Environmental Quality (CEQ) require a reasonable range of alternatives to be presented and analyzed in every EIS so that issues are "sharply defined" and the EIS provides "a clear basis for choice among options . . ." 40 C.F.R. § 1502.14. CEQ regulations and court decisions make clear that the discussion of alternatives is "the heart" of the NEPA process.</p> <p>In developing alternatives for further energy development in the Vermillion Basin/Hiawatha area, we strongly urge BLM to take a hard look at alternatives that may allow development while preserving crucial wildlife habitats from excessive disturbance and fragmentation. To this end, we urge the consideration of the Colorado Wildlife Management Guidelines for Oil and Gas Development developed by the Colorado Wildlife Federation and Colorado Mule Deer Association. A copy of the Wildlife Management Guidelines is attached to these Scoping Comments as Attachment A and is hereby incorporated by reference.</p> <p>To the extent ownership constraints may limit BLM's ability to manage impacts to mixed-ownership areas, effective protection of remaining sensitive resources on federal surface that can be effectively managed is more important, not less. In addition, the BLM should give full and meaningful consideration to alternatives that may reduce loss of wildlife habitat and other sensitive resources, including but not limited to:</p> <ul style="list-style-type: none"> . Directional drilling . Phased development . Centralized facilities . Minimizing road density . Interim reclamation . Noise mitigation . Consolidation of surface ownership to promote effective management . Offsite mitigation where effective onsite mitigation is not possible <p>We urge the BLM to consider working closely not only with project proponents, but also with cooperating agencies Wyoming Game and Fish Department and Colorado Department of Natural Resources to develop a range of alternatives that incorporate directional drilling, phased development, avoidance of sensitive habitats, and minimization of land disturbance in order to preserve wildlife habitat remaining in the area. We also encourage consideration of promising strategies for reducing habitat loss employed in the Roan Plateau Resource Management Plan Amendment. We welcome and support BLM's willingness to explore strategies and technologies as well as emphasize the use of known habitat protection tools in the proposed RPRMPA. Examples include unitizing leases in the sensitive areas with one producing company, mandating minimum well pad spacing, requiring directional drilling, designating sensitive areas with No Ground Disturbance (NGD) and No Surface Occupancy (NSO) restrictions, and imposing limits on maximum</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
PO	86	10	National Wildlife Federation, Rocky Mountain Natural Resource Center	<p>Although NEPA does not require BLM to achieve complete certainty regarding the environmental impact of a proposed project, the Act does require all federal agencies to make every reasonable effort to obtain the requisite information to make an informed and environmentally sound decision. 42 U.S.C. § 4332(2)(C). CEQ's regulations implementing NEPA expressly mandate that "[i]f . . . incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement." 40 C.F.R. § 1502.22(a) (emphasis added). The agency is excused from gathering information only if "the overall costs of obtaining it are exorbitant or the means to obtain it are not known." In that case, the regulations require disclosure of the missing information, its relevance, a description of existing information, and the agency's evaluation of that existing information. 40. C.F.R. § 1502.22(b).</p> <p>In addition to using data obtained under monitoring provisions of existing authorizations, including the Vermillion Basin EA and ROD, the EIS should take into account recent and ongoing research on effects of energy development on wildlife, including but not limited to:</p> <ul style="list-style-type: none"> - Matthew J. Holloran, Greater Sage-Grouse Population Response to Natural Gas field Development in Western Wyoming (2005) - Rusty C. Kaiser, Recruitment by greater sage-grouse in association with natural gas development in western Wyoming (M.S. thesis August 2006) - David E. Naugle et al., Sage-grouse Population Response to Coal-bed Natural Gas Development in the Powder River Basin: Interim Progress Report on Region-wide Lek-count analyses (May 26, 2006) - Hall Sawyer et al., Sublette Mule Deer Study (Phase II): Long-term monitoring plan to assess potential impacts of energy development on mule deer in the Pine dale Anticline Project Area (2005) - Wyoming Game and Fish Department, Minimum Recommendations for Development of Oil and Gas Resource Within Crucial and Important Wildlife Habitats on BLM Lands (2004)
PO	89	3	Western Business Roundtable	<p>Input from affected entities should be given proper weight on the EIS The EIS process requires that BLM consider the comments of interested and affected agencies, organizations and individuals. The Roundtable believes that public input is integral and that agencies need to give more consideration to those comments from entities that will actually be</p>
PO	93	1	Sweetwater County and Sweetwater County Conservation District	<p>The EIS needs to disclose and discuss economic, social, and environmental impacts at the landscape and regional level. The project area provides important winter, spring, and fall range for livestock and wildlife. The vegetation changes resulting from drilling and building gas transportation systems may change the landscape and these regional impacts need to be addressed in the EIS.</p>
PO	93	6	Sweetwater County and Sweetwater County Conservation District	<p>To the extent possible, SWC and SWCCD will cooperate in the acquisition of up to date and sound data. The challenge, however, will be matching the data across state lines and gathered by multiple agencies.</p>
PO	93	29	Sweetwater County and Sweetwater County Conservation District	<p>SWC and SWCCD want to actively participate in the development of alternatives. They bring valuable experience that can add to the solutions and this project will set precedent for other projects that are likely to follow.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
RG	84	1	Wyoming Department of Agriculture	Following are some specific individual effects upon livestock grazing that need to be analyzed in the EIS: increased off- and on-road traffic; increased numbers of speeding vehicles; construction of new-roads and modifications to existing roads; destroyed cattle guards; deaths and impairments of livestock from increased traffic and noxious weeds; decreased AuMs and pastures for grazing; decreased palatability of vegetation and forage from road and dust and development activities; cut fences and opened gates that result cumulatively in hundreds of hours of labor finding and herding stray livestock; damaged range improvements; unsuccessful reclamation of disturbed areas; introduction and spread of noxious weeds; adverse impacts on lambing and calving grounds and stock driveways, interruptions to livestock movements, and other detrimental social and economic impacts on livestock operators and livestock
RG	84	2	Wyoming Department of Agriculture	The checkerboard of private and BLM lands within the project area intensifies the potential for conflicts between energy operations and livestock grazing management and increases concerns about access and adverse impacts to private lands. The EIS needs to specifically analyze these consequences, while recognizing and preserving the right and ability of landowners to work with energy development operators.
RG	84	3	Wyoming Department of Agriculture	Landowners and grazing permittees will be directly affected. For that reason, we strongly encourage the project operators and BLM officials to keep landowners and grazing permittees informed and to work with them to learn of their concerns and recommendations regarding this project.
RG	84	4	Wyoming Department of Agriculture	The impacts of the Hiawatha project will definitely increase costs and decrease revenues for grazing permittees. The accumulated impacts of this and nearby projects could jeopardize the continued existence of grazing operations in this area. The individual and cumulative impacts and the proposed remedies need to be thoroughly identified and evaluated
RG	84	7	Wyoming Department of Agriculture	We also recommend consideration of annual or more frequent meetings among operators and BLM officials to discuss past performance and upcoming plans. We also recommend that the EIS require annual or more frequent meetings between operators and grazing permittees to discuss (1) problems encountered during the past grazing season, (2) agreed upon corrective actions, and (3) planned energy development and operations during the next grazing season. This meeting needs to occur on a date early enough to allow grazing permittees sufficient time to make decisions and allocate their resources of the upcoming grazing season. These meetings will also help BLM Range Management
RG	84	8	Wyoming Department of Agriculture	We believe the Hiawatha operators during the life of this project should conduct research and monitor the effects of their project on livestock grazing within the project area. We support compensatory mitigation discussions between gas operators and livestock permittees to lessen the burden, livestock stress, and economic impacts to grazing permittees from this development. Such mitigation strategies and costs could include, but not be limited to, the following: movement of livestock to an open allotment or pasture; purchase of hay in lieu of allotment use; monitoring of development impacts, including use of the Wyoming Rangeland Monitoring Guide of August 2001; construction of water and range improvements on either public or private land; purchase or lease additional of grazing land to replace lands lost to

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
RG	84	9	Wyoming Department of Agriculture	<p>grazing; and reimbursement to producers for loss of AUMs and pastures</p> <p>Any off-site mitigation resulting from this project will also have a direct impact on livestock grazing in those off-site mitigation areas. These areas have active grazing permits and offsite mitigation will likely cause decreases in AUMs, losses of pastures, increases in costs, and decreases of revenues. It's important that compensation be similarly awarded to grazing permittees who will be affected by offsite mitigation projects.</p>
RG	84	10	Wyoming Department of Agriculture	<p>Due to the grave impacts upon livestock grazing noted above, we strongly encourage the Hiawatha operators and BLM officials to work closely and consistently with all affected grazing permittees and agriculture producers to learn of their concerns and recommendations regarding this project. On-site and off-site mitigation and the requirement for successful reclamation and weed control need to be addressed in this EIS. Agriculture producers are intimately familiar with the areas that will be affected by this proposal and they possess irreplaceable long-term, on-the-ground knowledge. They are particularly aware of the individual and cumulative impacts upon the wildlife and livestock habitats and forage and rangeland health for the planning area. They will best appreciate the agriculture practices that will be affected. We strongly recommend that during the planning process energy development operators and BLM officials seek and address the concerns and recommendations of these stewards of habitat, forage, and rangeland health. Moreover, it is imperative that BLM officials continuously inform all livestock grazing permittees who are directly or indirectly affected of</p>
RG	84	14	Wyoming Department of Agriculture	<p>Congressional mandates, federal statutes, and implementing regulations call for multiple use, and these mandates, statutes, and regulations should be an integral part of the assessments. Moreover, the EIS should evaluate the impact of this project upon the Congressional intent expressed in the Federal Land Policy and Management Act of 1976 to manage public lands in a manner that will provide food and habitat for fish, wildlife, and domestic animals. The impacts upon food and habitat for fish and wildlife are usually well documented in National Environmental Policy Act documents. The consequences of this project upon food and habitat for domestic animals deserve the same degree of study and</p>
RG	84	15	Wyoming Department of Agriculture	<p>In fact, grazing is an essential resource management tool to achieve desired environmental objectives in the planning area, including obtaining positive effects upon food and habitat for wildlife and livestock. The EIS needs to include (1) these positive effects of livestock grazing upon the environment and as a tool to achieve environmental objectives and (2) the impacts of this project on limiting the ability of livestock grazing to achieve these positive effects.</p>
RG	91	1	Vermillion Ranch Limited Partnership	<p>The entire project area is critical livestock winter range or rangeland that is vital to the sustainability of the affected ranches, including Vermillion. While VRLP is not the only ranch affected, its federal grazing permits fall within much of the project area. The project area also includes deeded land owned by VRLP and state land leases held by VRLP. Thus, virtually all aspects of the Hiawatha Project will affect the ranch and its operations.</p> <p>Vermillion uses its federal grazing permits on an annual rotation such that its livestock are on public land most of the year in different allotments. The Hiawatha Project will affect the winter, spring, and fall grazing allotments. Thus, any displacement of livestock and / or wildlife from these allotments affects Vermillion operations in its other allotments.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
RG	91	2	Vermillion Ranch Limited Partnership	Vermillion generally supports the development of natural gas in the area, however, the concerns include: (1) The sustainability of Vermillion's agricultural operations; and (2) The minimization of surfacedisturbance, which is critical to both livestock and wildlife (especially sage grouse) populations.
RG	91	6	Vermillion Ranch Limited Partnership	The project will disrupt livestock grazing operations for several ranchers unless mitigation is adopted at the outset. The extent of impacts will be determined by how drilling and pipeline construction are commenced. Staged or phased development at the 5% level would allow for accelerated drilling in core or high value areas, without drilling throughout the project area at the same time. This is being proposed in the Pinedale Anticline as a way to allow for development while
RG	91	23	Vermillion Ranch Limited Partnership	Any amendment to the Green River RMP must protect livestock grazing and the right to install range improvements and other related projects.
RG	91	34	Vermillion Ranch Limited Partnership	BLM should also consider ensuring that the mitigation program includes rangeland forage and habitat mitigation that will compensate the livestock operators for the loss of access to grazing pastures. This could occur by developing range projects early in the life of the project to increase forage so the lost acreage does not decrease AUMs. Similar projects would allow habitat improvement that will also replace habitat lost. There is also the opportunity for range and habitat studies to be started at the beginning and continued through the life of the project that would provide data and lead to better resource decisions.
RG	93	5	Sweetwater County and Sweetwater County Conservation District	The EIS also needs up to date rangeland monitoring data, the number of permittees, the number of AUMs allocated to wildlife and livestock, recent census data on the number of wildlife and game animals, vegetation conditions, and predators. These data are necessary for the EIS to assess the impacts of the project relative to other impacts from the similar, connected, and cumulative actions. The data should be displayed on maps that would also include a layer disclosing the lease locations and applicable surface use stipulations. SWC and SWCCD also recommend that the data be put on the cooperator web site as soon as it becomes available to facilitate the cooperator analysis.
RG	93	8	Sweetwater County and Sweetwater County Conservation District	The project area provides essential range for livestock operations in the winter, spring and fall. Several permittees operate in both Wyoming and Colorado. Agriculture plays an important role in the county culture and economy, so the project's potentially adverse impacts on agriculture operations are a significant issue. The EIS needs to fully disclose and address the potential vegetation changes and displacement in terms of AUMs and ranch operations.
RG	93	32	Sweetwater County and Sweetwater County Conservation District	If it is possible to develop and maintain livestock grazing and wildlife levels, then the project should proceed without seasonal closures or large avoidance areas.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
RG	93	39	Sweetwater County and Sweetwater County Conservation District	Any off-site mitigation must be voluntary and be used when there on-site mitigation is not enough. For this project, the operator needs to work closely with the landowners and ranchers, since they own or operate on the land that will be needed for off-site mitigation. One suggestion is to do range projects in anticipation of the impacts as well as
RG	93	40	Sweetwater County and Sweetwater County Conservation District	BLM should also consider ensuring that the mitigation program includes rangeland forage and habitat mitigation that will compensate the livestock operators for the loss of access to grazing pastures. This could occur by developing range projects early in the life of the project to increase forage so the lost acreage does not decrease AUMs. Similar projects would allow habitat improvement that will also replace wildlife habitat. There is also the opportunity for range and habitat studies to be started at the beginning and continued through the life of the project that would provide data and lead to better resource decisions.
RG	94	6	Individual	As a permittee a major concern would be to have the BLM force the permittee to remove livestock because of a concern which may arise on lack of habitat due to drilling. We have to keep the permittee whole in this process and work out some arrangements, if it is better reclamation or other lands, but the permittee cannot lose AUM's from development. We need to work together on this project.
SE	62	3	Rock Springs Chamber of Commere	We would recommend contacting the Rock Springs Chamber of Commerce and the Sweetwater Economic Development Association for information on the socioeconomic impacts this development will have on Rock Springs.
SE	73	40	Biodiversity Conservation Alliance	<p>It has been well documented that the current accelerated oil and gas development in the Rocky Mountain region has resulted in greater competition for skilled oil and gas workers. While most of these workers are not supplied from the local area, there may be some competition for workers which will result in several potential impacts in Sweetwater County, Wyoming and Moffat County, Colorado. First, increased demand for local labor may result in shortages for employers outside the oil and gas industry as some workers move to oil and gas jobs. Second, competition for workers may result in increased wage rates, which could burden local employers. Many of these employers are government entities with limited ability to increase wages in order to retain staff. A third potential impact of the Hiawatha Project will be an increase in the population in these counties as workers following the rigs move to the area. This increased population will result in increased demand for housing (in turn raising housing prices) and increased demand for public services at a time when these local agencies may be experiencing staff shortages either through increased staffing needs going unmet or migration of labor to the oil and gas industry. The analysis of this proposal must include an examination of the changes in labor and government expenditures, among other costs, that will accrue to the surrounding communities. These impacts can be expected to be a large burden on the local communities if the Hiawatha Project is implemented.</p> <p>The analysis of the socio-economic impacts of the proposed Hiawatha Project must be thorough and accurate in order to responsibly manage the public lands. We have included a scoping brief document entitled "Socio-Economic Framework for Public Land Management Planning: Indicators for the West's Economy," which details our expectations for the baseline analysis of the region's economy as well as the analysis of the potential impacts of this project on the area.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	<p>We have also attached a scoping brief document entitled "The Economic and Social Impacts of Oil and Gas Development." This document focuses specifically on how BLM should evaluate the costs and benefits of conservation alternatives versus extraction alternatives within the area covered by the Hiawatha Project. As BLM considers the proposed natural gas development project, it must do a full accounting of the costs and benefits of that project. Recommendation: We request that BLM's socioeconomic analysis of the impacts of the Hiawatha Project follow the approaches set out in the scoping briefs "Socio-Economic Framework for Public Land Management Planning: Indicators for the West's Economy" and "The Economic and Social Impacts of Oil and Gas Development," and incorporate the specific considerations detailed below.</p> <p>BLM should utilize a Total Economic Valuation Framework for evaluating proposed oil and gas development projects. In general, when looking at the economic implications of the proposed project, BLM should do a full accounting of the costs and benefits. To facilitate informed investment decisions about publicly owned wildlands, economic analysis must take into consideration both market and nonmarket benefits and costs (Loomis 1993). To account for the full array of market and nonmarket wildland benefits, economists have derived the total economic valuation framework (TEV). TEV is the appropriate measure to use generally when evaluating the benefits of conserving wildlands and wilderness character. Figure 1 summarizes the seven categories of wildland benefits (Morton 1999).</p> <p>Figure 1. Total Economic Valuation Framework for Wilderness Quality Lands I. Source: Morton 1999 (see original document for diagram)</p> <p>The total economic valuation concept provides an analytic framework for such an analysis. This framework includes non-market benefits (Randall and Stoll, 1983; Peterson and Sorg, 1987; Loomis and Walsh, 1992). Under this approach, non-market benefits of a primitive and wild landscape may be substantial (Morton, 1999). Researchers have consistently found that passive use benefits of wildlands, including the benefits of simply knowing wilderness exists and being able to pass it on to future generations (known to economists as option, bequest and existence benefits), are greater than other wildland benefits. BLM planners must derive and fully utilize a total economic valuation framework when evaluating land management alternatives. It is the appropriate framework for evaluating management alternatives for public land.</p>
SE	73	41	Biodiversity Conservation Alliance	<p>The scope of the BLM analysis should extend beyond the surrounding area. All Americans own Federal public lands and the scope of the economic analysis should therefore look beyond the employment and income impacts on local communities to include all Americans. Taking a narrow "regional accounting stance" that only includes local counties will ignore the benefits and costs that accrue to Americans outside the region from management of public land.</p> <p>While it is important to estimate local employment impacts, often the job gains of one community are offset by job losses in another community. There is no net gain to American society when allocation of public resources simply transfers economic activity from one location of the country to another (Loomis, 1993). For example, drilling in Wyoming and Colorado will displace drilling activity elsewhere in America, and there would be no net loss or gain of jobs from a national perspective. Because public lands are owned by all Americans, we recommend the BLM take a national accounting stance when estimating the benefits and costs of the proposed Hiawatha Project.</p>
SE	73	44	Biodiversity Conservation Alliance	<p>A growing number of economists are recognizing that protecting the quality of the natural environment is key in attracting new residents and business and therefore the environment is the engine propelling the regional economy. A letter to President Bush from 100 economists concludes "The West's natural environment is, arguably, its greatest, long-run</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text																								
				<p>economic strength...A community's ability to retain and attract workers and firms now drives its prosperity. But if a community's natural environment is degraded, it has greater difficulty retaining and attracting workers and firms" (Whitelaw 2003). Given these findings, we request that the BLM economists fully consider the indirect role of wildlands in attracting</p> <p>non-recreational businesses and retirees when considering the economic impacts of the proposed natural gas development project. Research supports these assertions that the amenities of the rural West attract business and economic opportunities (Lorah, 2001; Rasker, 1994; Johnson and Rasker, 1993 and 1995; Rudzitis and Johansen, 1989 and 1991).</p>																								
SE	73	46	Biodiversity Conservation Alliance	<p>A full accounting of all hidden costs of oil and gas drilling is needed.</p> <p>The hidden economic costs from oil and gas drilling are summarized in Table 1 and should be included as part of the economic analysis of the proposed Hiawatha Project. While many of these costs are difficult to estimate, academic and federal agency economists have made great advances in developing methods to value non-market costs and benefits. Included in Table 1 are methods for estimating the economic costs, in order to make the point that these costs are quantifiable and should be included in the economic calculus. Many heretofore unquantifiable wildland benefits and costs are now quantifiable, and are available to agency officials responsible for developing the policies and procedures for guiding public land management. We therefore strongly encourage the BLM to internalize non-market costs into the economic analysis of the proposed project in order to balance the multiple uses and benefits derived from public land. Detailed explanations of these costs are included in the attached document referenced above titled "The Economic and Social Impacts of Oil and Gas Drilling" and in the document titled "Drilling in the Rocky Mountains: How Much and at What Cost?" also attached.</p> <p>Table 1. Economic Costs of Mining and Oil and Gas Extraction (see original document for formatted table)</p> <table border="1"> <thead> <tr> <th>Cost Category</th> <th>Description of Potential Cost</th> <th>Methods for Estimating Cost</th> </tr> </thead> <tbody> <tr> <td>Direct use</td> <td>Decline in quality of recreation including hunting, fishing, hiking, biking, horseback riding</td> <td>Travel cost method, contingent valuation method</td> </tr> <tr> <td>Community</td> <td>Air, water and noise pollution negatively impacts quality of life for area residents with potential decline in the number of retirees and households with non-labor income as their primary source, loss of an educated workforce negatively impacts non-recreation businesses. Decline in recreation visits and return visits negatively impacts recreation businesses.</td> <td>Surveys of residents and businesses. Averting expenditure methods for estimating the costs of mitigating health and noise impacts. Change in recreation visitation, expenditures and business income. Documentation of migration patterns.</td> </tr> <tr> <td>Science</td> <td>Oil and gas extraction in roadless areas reduces the value of the area for study of natural ecosystems and as an experimental control for adaptive ecosystem management.</td> <td>Change in management costs, loss of information from natural studies foregone.</td> </tr> <tr> <td>Off-site</td> <td>Air, water and noise pollution affect quality of downstream and downwind recreation activities. Drilling rigs in viewsheds reduce the quality of scenic landscapes, driving for pleasure and other recreation activities and negatively impacts adjacent property values. Groundwater discharged can negatively impact adjacent habitat, property, and crop yields, while depleting aquifers and wells.</td> <td>Contingent valuation method, hedonic pricing analysis of property values, preventative expenditures, well replacement costs, restoration and environmental mitigation costs, direct impact analysis of the change in crop yields and revenues.</td> </tr> <tr> <td>Biodiversity</td> <td>Air, water and noise pollution can negatively impact fish and wildlife species. Ground water discharged changes hydrological regimes with negative impacts on riparian areas and species. Road and drill site construction displaces and fragments wildlife habitat.</td> <td>Replacement costs, restoration and environmental mitigation costs.</td> </tr> <tr> <td>Ecosystem services</td> <td>Discharging ground water negatively impacts aquifer recharge and wetland filtration services. Road and drill site construction increase erosion causing a decline in watershed protection services.</td> <td>Change in productivity, replacement costs, increased water treatment costs for cities, preventative expenditures.</td> </tr> <tr> <td>Passive use</td> <td>Roads, drilling and pipelines in roadless areas results in the decline in passive use benefits for natural environments.</td> <td>Contingent valuation method.</td> </tr> </tbody> </table> <p>Source: Testimony of Peter A. Morton, PhD. Resource Economist, Ecology and Economics Research Department, The</p>	Cost Category	Description of Potential Cost	Methods for Estimating Cost	Direct use	Decline in quality of recreation including hunting, fishing, hiking, biking, horseback riding	Travel cost method, contingent valuation method	Community	Air, water and noise pollution negatively impacts quality of life for area residents with potential decline in the number of retirees and households with non-labor income as their primary source, loss of an educated workforce negatively impacts non-recreation businesses. Decline in recreation visits and return visits negatively impacts recreation businesses.	Surveys of residents and businesses. Averting expenditure methods for estimating the costs of mitigating health and noise impacts. Change in recreation visitation, expenditures and business income. Documentation of migration patterns.	Science	Oil and gas extraction in roadless areas reduces the value of the area for study of natural ecosystems and as an experimental control for adaptive ecosystem management.	Change in management costs, loss of information from natural studies foregone.	Off-site	Air, water and noise pollution affect quality of downstream and downwind recreation activities. Drilling rigs in viewsheds reduce the quality of scenic landscapes, driving for pleasure and other recreation activities and negatively impacts adjacent property values. Groundwater discharged can negatively impact adjacent habitat, property, and crop yields, while depleting aquifers and wells.	Contingent valuation method, hedonic pricing analysis of property values, preventative expenditures, well replacement costs, restoration and environmental mitigation costs, direct impact analysis of the change in crop yields and revenues.	Biodiversity	Air, water and noise pollution can negatively impact fish and wildlife species. Ground water discharged changes hydrological regimes with negative impacts on riparian areas and species. Road and drill site construction displaces and fragments wildlife habitat.	Replacement costs, restoration and environmental mitigation costs.	Ecosystem services	Discharging ground water negatively impacts aquifer recharge and wetland filtration services. Road and drill site construction increase erosion causing a decline in watershed protection services.	Change in productivity, replacement costs, increased water treatment costs for cities, preventative expenditures.	Passive use	Roads, drilling and pipelines in roadless areas results in the decline in passive use benefits for natural environments.	Contingent valuation method.
Cost Category	Description of Potential Cost	Methods for Estimating Cost																										
Direct use	Decline in quality of recreation including hunting, fishing, hiking, biking, horseback riding	Travel cost method, contingent valuation method																										
Community	Air, water and noise pollution negatively impacts quality of life for area residents with potential decline in the number of retirees and households with non-labor income as their primary source, loss of an educated workforce negatively impacts non-recreation businesses. Decline in recreation visits and return visits negatively impacts recreation businesses.	Surveys of residents and businesses. Averting expenditure methods for estimating the costs of mitigating health and noise impacts. Change in recreation visitation, expenditures and business income. Documentation of migration patterns.																										
Science	Oil and gas extraction in roadless areas reduces the value of the area for study of natural ecosystems and as an experimental control for adaptive ecosystem management.	Change in management costs, loss of information from natural studies foregone.																										
Off-site	Air, water and noise pollution affect quality of downstream and downwind recreation activities. Drilling rigs in viewsheds reduce the quality of scenic landscapes, driving for pleasure and other recreation activities and negatively impacts adjacent property values. Groundwater discharged can negatively impact adjacent habitat, property, and crop yields, while depleting aquifers and wells.	Contingent valuation method, hedonic pricing analysis of property values, preventative expenditures, well replacement costs, restoration and environmental mitigation costs, direct impact analysis of the change in crop yields and revenues.																										
Biodiversity	Air, water and noise pollution can negatively impact fish and wildlife species. Ground water discharged changes hydrological regimes with negative impacts on riparian areas and species. Road and drill site construction displaces and fragments wildlife habitat.	Replacement costs, restoration and environmental mitigation costs.																										
Ecosystem services	Discharging ground water negatively impacts aquifer recharge and wetland filtration services. Road and drill site construction increase erosion causing a decline in watershed protection services.	Change in productivity, replacement costs, increased water treatment costs for cities, preventative expenditures.																										
Passive use	Roads, drilling and pipelines in roadless areas results in the decline in passive use benefits for natural environments.	Contingent valuation method.																										

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
SE	73	47	Biodiversity Conservation Alliance	<p>Wilderness Society, before the Subcommittee on Forests and Public Land Management, Committee on Energy and Natural Resources, United States Senate, April 26, 2001. Economically Recoverable vs. Technically Recoverable Oil and Gas. As BLM develops its EIS for the proposed Hiawatha Project, it should base its analysis on economically recoverable natural gas, not simply technically recoverable natural gas. Economically recoverable resources are that part of the technologically recoverable resources that can be recovered with a profit. To be considered economically recoverable, the market and non-market costs of gas recovery must be less than or equal to the gas price. When economic criteria are considered, the recoverable gas drops significantly (Attanasi, 1998; LaTourrette, 2002)</p> <p>If economic factors are not considered, the potential gas will be overestimated as will the opportunity costs of all forms of environmental protection. If the gas is not economical to extract, there is no adverse impact on gas supply from protecting wilderness, wildlife, archeological sites, recreation sites and other public resources either through lease stipulations or outright bans on leasing. Further, an economic evaluation of the proposed project that relies on misleading economic information or fails to include all relevant costs in its economic analysis will violate NEPA because it does not provide decision-makers and the public a valid foundation on which to judge proposed projects.</p> <p>The BLM should avoid IMPLAN or other input-output models that are grounded in Economic Base Theory when estimating jobs and income for each alternative. The IMPLAN model is an economic model used by the Forest Service and the BLM to project jobs and income from proposed actions. While the IMPLAN model can be useful as a static analysis of the regional economy, communities must be aware of the shortcomings and poor track record of the model. A more accurate, dynamic, and complimentary approach examines regional trends in jobs and income. We recommend that the BLM use the EPS model developed by and available free from the Sonoran Institute (2004).</p>
SE	73	48	Biodiversity Conservation Alliance	<p>The NEPA analysis should be based on Reasonable Budget Expectations, which should be clearly stated and the BLM must include a fiscal analysis of alternative implementation and mitigation costs. The U.S. General Accounting Office (1992) reviewed federal land management budgets and found that the funding received by public land management agencies has been significantly less than the budgets required to fully implement plans. The lower-than-planned budgets have prevented public agencies from producing many of the outputs projected in land management plans, and from implementing the mitigation measures promised in NEPA documents.</p> <p>To remedy this, the BLM needs to consider budget constraints when evaluating each management alternative as part of the NEPA process. This will require more detail as to where money will be spent, which programs will be fully funded and which ones will not. Planners should, for example, estimate the labor and capital costs of fully mitigating the environmental consequences that will result from implementing each management alternative. By ignoring budget constraints, the plan presents the public with an unrealistic picture of what will be accomplished given limited financial resources.</p> <p>We are especially concerned with a potential lack of analysis of the costs to mitigate the environmental consequences of each alternative. Ignoring budget constraints is completely unrealistic and deceiving to the public, because planners have not considered the costs of implementing each alternative and the costs of mitigating the potential damage from each alternative. While the budget available to manage the planning area should be considered constant across alternatives, the costs to implement each management alternative are not equal. For example, an alternative resulting in resource damage will require more money for mitigation of said resource damage than a conservation alternative. It makes no sense for taxpayers to subsidize a more damaging and more costly alternative when a less damaging, less costly alternative is available. There is simply no justification for any assumption that funding will be sufficient to implement each alternative and that all resource damage will be fully mitigated – unless costs and budgets are fully analyzed.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
SE	73	49	Biodiversity Conservation Alliance	<p>According to a Council of Environmental Quality memorandum on NEPA requirements [cited in NEPA Compliance Manual, 2nd Edition (Freeman et al 1994)]:</p> <p>[T]o ensure that environmental effects of a proposed action are fairly assessed, the probability of the mitigation measure being implemented must also be discussed. Thus the EIS and the Record of Decision should indicate the likelihood that such measures will be adopted or enforced by the responsible agencies. (Section 1502.16(h), and 1505.2)</p> <p>The “probability of mitigation measures being implemented” is directly related to how much the mitigation will cost and how those costs relate to the expected budget available. As such the EIS should include an analysis of the costs of implementing each alternative, and the costs of the mitigation plans contained within each alternative. These costs should then be compared to the expected budget level to assess the probability of mitigation measures being fully implemented. Furthermore, the costs to communities from unmitigated environmental damage must be estimated and included in the benefit-cost analysis for the Hiawatha Project.</p>
SE	73	50	Biodiversity Conservation Alliance	<p>To provide socio-economic context, the BLM should examine historic trends in county income and employment. In order to fully understand the local area and the role of public lands in the economy, an analysis of economic trends must be completed. A static analysis is incapable of revealing the overall importance of various industries over time or the likely role of these industries in the future. Completing an analysis of income and employment trends and the role of wildlands in those trends is especially relevant given the growing body of literature suggesting that the future diversification of rural economies is dependent on the ecological and amenity services provided by public lands in the west (Power 1996, Haynes and Horne 1997). These services (e.g. watershed protection, wildlife habitat, and scenic vistas) improve the quality of life, which in turn attracts new businesses and capital to rural communities.</p> <p>Public lands in the West represent natural assets that provide communities with a comparative advantage over other rural areas in diversifying their economies. Public land management can contribute to decreasing dependence/specialization and diversifying local economies by de-emphasizing resource extraction and emphasizing management and budgets on providing high-quality recreation and conserving habitat for the region’s biological resources.</p>
SE	73	51	Biodiversity Conservation Alliance	<p>Trend Analyses of Sweetwater County, Wyoming and Moffat County Colorado</p> <p>As noted above, we recommend that the agency use the Economic Profile System developed in cooperation with the BLM by the Sonoran Institute and available for download at http://www.sonoran.org. We used the Economic Profile System to compile a trend analysis of Sweetwater County, Wyoming and Moffat County, Colorado, where the Hiawatha Project is proposed to take place. We have included these documents as attachments with these comments and have summarized key points below.</p> <p>Sweetwater County, Wyoming</p> <p>Sweetwater County experienced job growth at a rate greater than both the state of Wyoming and the rest of the country for the last thirty years. Non-labor income is the largest source of income in the County with welfare representing a consistently small portion of total income over the period. Income growth has also been stronger in Sweetwater County than both the state and nation. The unemployment rate in Sweetwater County is lower than that of the State or the U.S.</p> <p>The number of firms in the mining industry in the county has declined over the last three decades. This indicates both the declining importance of the industry in the total economy of the area, and a potential consolidation of the industry. Both of these factors will tend to limit the importance of mining (which includes oil and gas extraction) as a source of income and employment in the area. The economy of the county is also relatively diverse.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	<p>Moffat County, Colorado While Moffat County's job growth was slower than the rest of the state, it did experience a higher rate than the U.S. as a whole through the most recent recession. The largest share of total personal income in the county is non-labor income, however this source of income has been declining in recent year. At the same time income from service sector industries has been growing.</p> <p>As with Sweetwater County, mining makes up a small percentage of the total income and employment in Moffat County. The number of firms in the industry is also small and declining in Moffat County.</p> <p>Together, these profiles examining the economic trends of Sweetwater and Moffat Counties provide a more realistic perspective of the local economy in recent years than a static analysis can show. Such trend analyses should be included in baseline analysis and used as a starting point for analyzing the potential socio-economic impacts of the Hiawatha Project.</p>
SE	73	153	Biodiversity Conservation Alliance	<p>BLM Must Undertake a Credible Socioeconomic Analysis The Draft EIS explain how much gas was estimated to be both technically and economically recoverable in the planning area. What is the reference for the estimated gas used in the economic impact analysis? How are the production estimates derived? What references were used to estimate these amounts? How do these estimates compare with USGS estimates for economically recoverable gas? Please compare and contrast USGS estimates of economically recoverable gas with the amount of gas assumed recoverable and used in the economic impact analysis.</p>
SE	73	154	Biodiversity Conservation Alliance	<p>Please identify the assumptions that were used to arrive at estimates for per-well and whole-project gas production on a daily, weekly, monthly, and/or annual basis. Estimating quantities of undiscovered gas is fraught with uncertainties and economic risks for communities, companies, and the public. The Congressional Research Service (Corn et al. 2001) recommends economically recoverable resources as the basis of policy analysis. Virtually every report on gas supply in the past 20 years has reported results in terms of economically recoverable resources (Environmental Law Institute 1999). If economic constraints on production are ignored, land management plans will overestimate the quantity of gas that will be recovered in the reasonably foreseeable future. Please discuss the economic assumptions and parameters</p>
SE	73	155	Biodiversity Conservation Alliance	<p>The USGS 50-percent estimate (the mean estimate) for economically recoverable gas represents the best, unbiased estimate currently available. The USGS data, developed by government scientists, should be used in this analysis. Such an analysis is required by law in order to provide a realistic examination of economic impacts.</p> <p>The costs that USGS uses to assess economically recoverable gas and oil include the direct costs of exploration, development, and production at the wellhead, plus a profit margin. For gas to be considered profitable to recover, the full costs of gas recovery must be less than or equal to the price for gas. It is important to note that USGS estimates do not include transportation costs, non-market costs, or off-site mitigation costs such as increased water treatment costs. Please discuss potential mitigation costs and transportation costs associated with bring the gas to market. The Draft EIS should discuss water quality concerns and therefore must include an analysis of mitigation costs.</p> <p>Management plans that rely on technically recoverable estimates will dramatically overstate the gas recoverable and hence the jobs and revenues from future gas production (Morton et al. 2002). Please discuss how economic constraints on gas production were included in the analysis of expected gas recovery from each alternative, including the economic impacts associated with each alternative. Please complete a marginal revenue-cost analysis of estimated gas</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				production levels. Please compare and contrast the marginal revenues with the marginal costs for the full range of drilling levels. For example, examine the cost from drilling wells in deeper formations with the potential revenues from deeper wells.
SE	74	24	United States Environmental Protection Agency, Region 8	<p>Potential effects on local communities, and reasonable foreseeable development considerations.</p> <p>The EIS should consider environmental related socio-economic impacts to the local communities such as housing for project workers, schools, burdening existing waste and wastewater treatment handling facilities, and increased road traffic with associated dust and hazardous materials spill potential. Methods to avoid or minimize such impacts, or if these issues are not a concern for this project, should be discussed. The reasonable foreseeable development evaluation should address the additional loading that could be placed on local communities abilities to provide necessary public services and amenities, and methods that could potentially avoid or minimize such impacts.</p>
SE	75	10	Sweetwater County Planning Department	<p>community Infrastructure: The Sweetwater County Comprehensive Plan - 2002 states the following goals:</p> <ol style="list-style-type: none"> 1) "Encourages additional growth and development ...through proactive infrastructure needs assessment and planning." 2) "Balance future growth and development with facility/service capacity (e.g. water, sewer, waste disposal, transportation and roads, law enforcement and emergency services) County-imposed infrastructure/service provision requirements will be in direct proportion to the anticipated/associated demands." 3) "Require developer-funded/provided infrastructure improvements that are in proportion to the associated impacts." <p>To assist in meeting the above goals, Sweetwater County would like to encourage the BLM, the oil and gas companies, local governments/agencies and other affected parties to work together to gather socio-economic data related to the cumulative effects of the existing and the proposed oil and gas field developments within the Rock Springs and Rawlins BLM Resource Areas. Some of the socio-economic issues that need to be assessed include: workforce demographics, housing, education, emergency services, health care, child care and others.</p>
SE	75	11	Sweetwater County Planning Department	<p>Sweetwater County encourages formation of public/private partnerships that are concerned with the overall picture and not just a case by case approach. These partnerships need to encourage mineral development while ensuring that community needs are met.</p>
SE	75	12	Sweetwater County Planning Department	<p>Year Round Drilling: Except in cases of critical wildlife habitat, year round drilling is encouraged to help support a steady occupancy rate for developers providing housing within Sweetwater County. The variable workforce related to seasonal drilling does not support a predictable investment base for developers trying to meet housing demands and needs.</p>
SE	76	1	Sweetwater County Board of County Commissioners	<p>The Sweetwater County Board of County Commissioners strongly supports the development of the Hiawatha Regional Energy Development Project. Continued exploration and development of natural gas and other petroleum resources sustains the oil and gas industry which is a vital economic force in Sweetwater County. This industry provides jobs for our residents as well as tax revenues which provide our communities with high quality public services.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
SE	77	3	Individual	Hydrocarbon vapors vented, burned, or otherwise released into the atmosphere have a monetary value and are a significant loss of royalty and taxes to federal, state and local governments and consequently to the people of the United States who are the actual owners of the hydrocarbons produced on federal lands. It is the responsibility of the Bureau of Land Management to maximize these revenues for the benefit of the citizens of the United States.
SE	83	1	American Gas Association	We raise an important policy concern that should be included within the scope of issues to be analyzed in the Hiawatha Project EIS. On pages 9 and 10 of your Public Scoping Notice, you have provided a preliminary list of issues to be covered in the draft EIS "as a starting point for public review and comment and a means for identifying the resource disciplines needed to conduct the analysis." The preliminary list does not mention energy impacts - i.e. how BLM's decision either to expand or restrict natural gas development would affect natural gas supply, consumer prices and the U.S. economy. We urge you to add this issue to the scope of issues to be analyzed in the Hiawatha Project EIS.
SE	83	3	American Gas Association	<p>Supply and Demand Imbalance Leads to High & Volatile Prices: Natural gas is the cleanest fossil fuel, which has made it increasingly desirable for home heating, appliances, and electric generation. As a result, demand has been steadily rising in recent years. The "gas bubble" of the late 1980s and '90s, is gone. No longer is demand met while unneeded production facilities sit idle. The valves are wide open, yet demand has been outpacing supply, and the result has been both higher and more volatile prices. See AGA's Study "Avoiding the Wild Ride - Ways to Tame Natural Gas Price Volatility."</p> <p>This tight supply/demand balance makes the natural gas market even more sensitive to increased demand due to severe winter weather -- or to supply disruptions, such as the disruptions caused by Hurricanes Katrina and Rita.</p> <p>Our economic security often depends on the timely expansion of energy related facilities that enable the nation to have access to existing and new reserves of oil and natural gas. A study completed by the Interstate Natural Gas Association of America Foundation (INGAA Foundation) in 2005 revealed that a two-year delay in constructing needed natural gas infrastructure would cost America consumers \$200 billion by 2020. See http://www.ingaa.org/Documents/Foundation%20Studies/F-2005-01%20(Avoiding%20and%20Resolving%20Conflicts).pdf.</p> <p>Natural gas utilities and customers are in the same boat when prices go up-we are all hurt. Higher and more volatile prices have made customers shocked and angered by their monthly natural gas bills. Our member companies have borne the brunt of that anger, even though we simply pass the costs we pay for that gas on to the customer-with no mark-up or profit.</p> <p>There are only two ways to solve this problem. We must decrease demand and increase supply. Americans have already significantly decreased their per capita use of energy-by around 20 percent per person during the past decade. Yet overall demand for natural gas is rising due to population increases and regulatory pressure for using clean natural gas for electric power production. Conservation alone is not the answer. Instead, we must also increase supplies of natural gas to meet rising demand. We need both conservation and increased supplies to ensure a healthy, vibrant economy with sustained growth. See AGA study "From the Ground Up - America's Natural Gas Supply Challenge". (http://www.aga.org/FromTheGroundUp).</p> <p>This two-pronged policy approach was advocated in the National Commission on Energy Policy's December 2004 report. In order to provide the ample, secure, clean, and affordable energy supplies the nation requires, the Commission recommended "policies to expand and diversify available supplies of natural gas" among other things. Furthermore, the Commission notes that natural gas is a "fuel that is critically important to the nation's energy supply and that is likely to</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
SE	83	4	American Gas Association	<p>play a substantial role in the transition to a lower0carbon energy future." See "Ending the Energy Stalemate, A Bipartisan Strategy to Meet America's Energy Challenges" (http://www.energycommission.org).</p> <p>Public health and welfare is also at stake. Poor families have had to struggle to pay to heat their homes in recent winters. Applications for charitable assistance and federal assistance under the Low Income Home Energy Assistance Program (LIHEAP) soared in recent winters. And many working poor families do not qualify for such assistance.</p>
SE	83	5	American Gas Association	<p>From a broader public welfare perspective, if the current supply-demand imbalance and the resulting price volatility are allowed to continue, it could cause natural gas customers to switch to other less efficient, less secure and less environmentally friendly fuel sources. An AGA study estimated that a 50 percent increase in natural gas use could reduce oil imports by approximately 2.6 million barrels a day, while reducing emissions of our principal greenhouse gas, carbon dioxide, by some 930 million tons every year. See "Fueling the Future - Natural Gas & New Technologies for a Cleaner 21st Century" (2001 Update) at page 1 (http://www.aga.org/FuelingTheFuture).</p>
SE	83	6	American Gas Association	<p>In January 2005, a coalition of major manufacturers, three environmental groups and energy efficiency groups wrote to President Bush and Congress calling for new U.S. natural gas policies to strike a much needed balance between growing natural gas demand and limited supply while ensuring that gas development takes place in an environmentally responsible manner. See "Letter to President Bush and Congress, January 3, 2005" (http://aceee.org/energy/natgasprinciples.pdf).</p> <p>The U.S. Department of Energy pledged more than \$15 million to fund research and development projects focused on recovering large, unconventional oil and natural gas resources. For the foreseeable future, U.S. energy security will hinge upon our ability to increase production of both conventional and unconventional oil and gas resources domestically. This latest R&D initiative especially focuses on achieving higher energy yields in the most environmentally-sensitive fashion possible.</p> <p>According to a Clinton Administration report, advanced technologies have made America the cleanest energy producer in the world. The report describes how advanced technology benefits the environment in exploration, drilling and completion, production, site restoration, and protection of sensitive areas. According to the report, advanced technologies in the energy industry led to reduced energy consumption, reduced greenhouse gas emissions, better protection of water resources and wildlife habitat and increased worker safety. See "Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology" (http://resourcescommittee.house.gov/Press/reports/energy/clinreport.pdf).</p> <p>To ensure that the United States has adequate supplies of natural gas to meet demand and to reduce price volatility, it</p>
SE	83	7	American Gas Association	<p>AGA urges you to evaluate and give appropriate weight to the beneficial energy, environmental, economic, national security, and public health impacts of expanding natural gas production in the Hiawatha Project. AGA urges you to allow the greatest possible access to natural gas supplies at a time when we clearly need to increase supply to meet rising</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
SE	84	11	Wyoming Department of Agriculture	<p>Most environmental impact studies are woefully deficient in identifying or analyzing social and economic impacts imposed by proposed energy developments. We appreciate the fact that BLM field office staff include numerous and diverse environmental specialists and usually no social and economic analysts. As a result, environmental impact studies tend to ignore the detrimental social and economic costs imposed by proposed energy developments upon the citizens who are most affected by these burdens: those living within and adjacent to the planning area. We strongly recommend that the EIS include a full and thorough social and economic impact analysis as part of the EIS. We specifically suggest that analysis includes the impacts upon livestock grazing in and adjacent to the planning area.</p>
SE	84	12	Wyoming Department of Agriculture	<p>Grazing on public lands represents a vital economic value to agriculture producers and to local communities. Impacts on this economic activity, specifically within the affected area and in adjoining areas, need to be included in the study. The cumulative impacts of energy developments upon livestock grazing may jeopardize the livelihoods of grazing permittees. The loss or impaired ability of livestock grazing operations needs to be evaluated in the EIS.</p> <p>The true economic impact of livestock grazing upon local communities is often underestimated. Input-Output studies by the University of Wyoming reveal that nearly all livestock in Wyoming are sold out of state, yet nearly all expenditures by Wyoming ranchers are made in nearby communities. This infusion and turnover of out-of-state or new dollars into local communities created by livestock grazing needs to be reflected in the study. More importantly, the EIS needs to capture the impact of the loss of that infusion and turnover by ranching operation that are impaired by increased costs and decreased revenues created by this energy development project.</p> <p>Throughout Wyoming, ranches are being replaced by housing and industrial developments, resulting in a permanent loss of wildlife habitat, scenic vistas, wide-open spaces, visual beauty, historic rural landscapes, stable rural revenues, and the historic cowboy culture of this state. These developments arrive with a significant increase in the cost of supporting infrastructure imposed upon federal, state, and county officials. A recent study in Fremont County conducted by the University of Wyoming shows that ranches bring significantly greater revenues into the county than the cost of the infrastructure needed to support those ranches. Conversely, developments demand costs in county infrastructure support that far outweigh the revenues generated by developments. The study needs to be included in the EIS.</p>
SE	84	13	Wyoming Department of Agriculture	<p>In addition to its economic value, grazing also represents irreplaceable environmental and social values, contributing to the preservation of open spaces, the scenic vistas and visual beauty of the area, and the traditional image of the historic rural landscapes of Wyoming and the West. Any loss of these important environmental, historic, and social values of livestock grazing to users and visitors of the area and residents of impacted communities should be included in the scope of the study and the social impacts analyzed in the EIS.</p>
SE	89	1	Western Business Roundtable	<p>The Roundtable enthusiastically supports the Hiawatha Regional Energy Project and appreciates BLM's consideration of its merits. This area is no stranger to energy development. In fact, the project area has seen steady oil and gas drilling and development since the 1920's. The Hiawatha Project would expand drilling within existing fields. In doing so, it will help the nation meet a number of the goals and objectives of both the Energy Policy Act of 2005 and President Bush's National Energy Policy:</p> <ul style="list-style-type: none"> • Such domestic oil and gas development is crucial to reducing the price volatility that has so negatively impacted U.S. consumers in recent years; • The U.S. economy will benefit through increased revenues and economic growth; • Maximization of the environmentally-sound development of EIS reserves on

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	government-controlled lands is key to reducing our nation's dependence on imported fuels from politically unstable areas of the world.
SE	89	4	Western Business Roundtable	The EIS needs to include unbiased and comprehensive cost-benefit analysis. An unbiased and comprehensive economic "cost-benefit" analysis should be performed. A key element of such analysis must be an explanation of the revenue that could be earned through an increase in oil and gas development as a result of the Hiawatha project. BLM solicits comments during the EIS scoping period to make sure that potential impacts are identified and analyzed. Given the current energy needs of the country, the tax and socio-economic impact of not doing the project need to be analyzed as part of this process.
SE	90	1	Questar	Questar requests that the BLM seriously consider the impacts of developing, as well as not developing, the energy resources within the Project Area. Energy resources were not included in the preliminary list of issues identified in the Scoping Notice for this project, but Questar feels that it is an issue worthy of consideration in your analysis. Decisions surrounding the expansion or restriction of natural gas development will ultimately impact the natural gas supply, consumer prices, the local tax base, the job market and the economy.
SE	93	2	Sweetwater County and Sweetwater County Conservation District	Any energy development project must consider the impacts on the communities, so that the county can facilitate planning for infra-structure, housing and other community needs, and integrate this new level of development into county planning. While the project will potentially pump revenues into the Sweetwater County economy, it will also affect existing
SO	73	118	Biodiversity Conservation Alliance	Soils The soils in the planning area are highly susceptible to erosion and degradation as result of human-induced disturbance of the type proposed in the Hiawatha project. Many will fall into a sensitive soils category in regard to topsoil depth and quality, deserving limitations to roads and facilities construction, rapid to very rapid runoff potential, and severe to very severe wind and water erosion potential. What percentage of the project area is on soils that are considered "sensitive" or are susceptible to erosion and runoff? Furthermore, soil crusting also reduces infiltration rates. What proportion of soils in the project area are likely to form a physical surface crust, particularly if vegetative cover deteriorates? We would expect a very high potential for runoff in this project area. Due to the highly erosive nature of the area, relatively high suspended sediment concentrations should be expected. Thus, the planning area is typified by fragile soil types that are highly
SO	73	119	Biodiversity Conservation Alliance	Badland areas are particularly sensitive. What percentage of the project area falls into this category? Badlands soils types have very low potential for reclamation, even if BMPs are required. Due to the sensitivity of this landscape type, badlands must be avoided at all costs from the standpoint of surface disturbance. The Acceptable Plan Criteria for Transportation Planning must provide for prohibiting construction activities in badland areas. The BLM must present the spatial distribution of badlands topography in the EIS, and strong mitigation measures must be applied.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
SO	73	120	Biodiversity Conservation Alliance	Revegetation and reclamation is likely to be a source of long-term problems if this project is allowed to go forward. Based on soil conditions and properties, what is the reclamation potential for each soil type in the project area? What is the spatial distribution of each soil type? For each soil type, how long post-disturbance and reclamation would be required before the original native vegetation once again dominates the site and is in a fully recovered condition? Finally, wind erosion is likely to accelerate. Special efforts must be identified, defined, and employed in wind-erosion-prone areas. These areas must be mapped spatially and presented in the EIS.
SO	73	121	Biodiversity Conservation Alliance	Traditional mitigation requirements have been insufficient to prevent widespread damage to soils and to prevent long-term revegetation problems. Hydric, sandy, and high-clay content soils must be mapped for the project area, and mitigation measures should prohibit construction activities on such soils. In addition, what will happen when areas of excessive sand clay, or wetness are too large to be mitigated by final siting choices? One would expect that some areas of sensitive soils are quite extensive, and that major, rather than minor, shifts of surface disturbance will be needed to avoid them. In order to mitigate properly for such large-scale occurrences of sensitive soils, these should be mapped and presented in the EIS as areas where surface disturbance will not be permitted.
SO	73	122	Biodiversity Conservation Alliance	Avoidance measures for steep and/or erodible slopes must be provided in the EIS. The mitigation provided must be watertight. The BLM should proscribe construction on steep slopes, which is the appropriate measure to prevent unnecessary and undue degradation of resources. Project facilities must in fact avoid saturated soils, badlands, and steep slopes. The BLM has the unequivocal authority to require as a Condition of Approval on APDs to require that surface
SO	73	123	Biodiversity Conservation Alliance	With soils, just as with wildlife, the extent of impacts cannot be determined without knowing exactly where the wells, roads, and pipelines are going to be constructed. The amount and duration of such impacts would depend on the location of the wells and access roads. Thus, in the absence of full disclosure of a complete plan of development for roads, wells, and pipelines, the BLM cannot offer any analysis on effects to soils and erosion beyond gross estimates, a fact that would violate the NEPA requirements to make a thorough evaluation of impacts.
SO	73	124	Biodiversity Conservation Alliance	BLM must also provide adequate standards with regard to conserving and replacing topsoil during construction and reclamation activities. Retention of topsoil for reclamation purposes is important, because availability of mycorrhizal propagules in soil used for reclamation can influence the success of sagebrush reestablishment (Lyford 1995). Topsoil should be reserved during every surface-disturbing activity, so that it can be replaced during the reclamation process. It is hard to imagine a case when topsoil salvage and replacement would not be possible.
SO	73	125	Biodiversity Conservation Alliance	Biological Soil Crusts Biological soil crusts are important to soils because they fix nitrogen into the soil, stabilize the soil surface, reduce erosion and increase water retention and infiltration (Snyder and Wullstein 1973). According to Rychert et al. (1978), "Blue-green algae crusts and/or blue-green algae-lichen crusts can fix significant amounts of atmospheric nitrogen in desert soils, and are probably responsible for a major input of nitrogen into desert ecosystems." Nitrogen and phosphorous may limit plant growth in the project area. What measures will the BLM require to promote the

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				re-establishment of biological soil crusts following disturbance and reclamation? Are there mitigation measures that will enhance the possibility of biological soil crust disturbance following recovery? And what is the timeframe in which biological soil crusts can be expected to recover following abandonment and reclamation of roads and well sites? All of these questions must be adequately addressed in the EIS.
SO	93	4	Sweetwater County and Sweetwater County Conservation District	SWCCD will be conducting a Level III soil survey on private and state land using funds from Natural Resource Conservation Service ("NRCS") and the county. SWCCD has asked that BLM fund the effort for a public land survey to ensure that the Level III study covers the public lands in the county as well. If BLM were to promptly fund this work, then this survey could be a pilot project to demonstrate the value of comprehensive soil data across the landscape and land ownerships for project approvals and reclamation planning. SWCCD will provide the data as it becomes available.
TR	62	4	Rock Springs Chamber of Commere	Access to public lands for grazing and recreation need to be maintained.
TR	63	1	Wyoming Department of Transportation	WTDOT will require an access permit for any and all ingress/egress points of State Highway 430. Access will be permitted and controlled in accordance with the WYDOT access policy.
TR	73	137	Biodiversity Conservation Alliance	Traffic Heavy truck traffic associated with wellfield production results in wildlife mortality and displacement, particulate and chemical air pollution, and safety hazards for the public. How will speed limits be enforced? Is there any hope of compliance without a credible enforcement presence? Measures such as hub and cluster directional drilling should be employed to minimize the amount of vehicle traffic and to concentrate it in only a few parts of the project area.
TR	74	9	United States Environmental Protection Agency, Region 8	Road Construction and Mitigation The EIS should evaluate effect of any proposed road improvements, new road construction, and general right-of-way (ROW) construction activities on the area. The evaluation should include increased access, travel management and enforcement aspects, as well as impact to the flora and fauna of the area. EPA's general recommendations regarding roads are to: <ul style="list-style-type: none"> · minimize road construction and reduce road density as much as possible to reduce potential adverse affects to watersheds; · locate roads away from streams and riparian areas as much as possible; · locate roads away from steep slopes or erosive soils; · minimize the number of road stream crossings; · stabilize cut and fill slopes; · provide for adequate road drainage and control of surface erosion with measures such as adequate numbers on waterbars, maintaining crowns on roads, adequate numbers of rolling dips and ditch relief culverts to avoid drainage running on or along roads and avoid interception and routing sediment to streams; · consider road effects on stream structure and seasonal and spawning habitats; · allow for adequate large woody debris recruitment to streams and riparian buffers near streams; · maintain crowns on roads and to provide adequate dips and/or waterbars to promote drainage off roads; and,

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				· avoid road use during spring breakup conditions.
TR	74	10	United States Environmental Protection Agency, Region 8	Culverts should be properly sized to handle flood events, pass bedload and woody debris, and reduce potential for washout. They should be properly aligned with the stream channel and designed and placed to allow for fish migration. Undersized culverts should be replaced and culverts which are not properly aligned or which present fish passage problems and/or serve as barriers to fish migration should be adjusted. Bridges or open bottom culverts that simulate stream grade and substrate and that provide adequate capacity for flood flows, bedload and woody debris are recommended to minimize adverse fisheries effects or road stream crossings.
TR	74	12	United States Environmental Protection Agency, Region 8	Also, the EIS should note the intended source for any gravel that will be used for stabilizing roads or well pads. Any environmental impacts from the mining of that gravel should also be described in the EIS.
TR	75	1	Sweetwater County Planning Department	sweetwater County Roads: Any crossing, access to, or utilization through a Sweetwater County Road right-of-way for road way, utility or other access purposes requires an access permit or license from the Sweetwater County's Engineer's Department. Questar is encouraged to contact the Sweetwater County Engineer to obtain necessary roadway permits prior to the initiation of this project.
TR	75	2	Sweetwater County Planning Department	To ensure that public roads, cattle guards and bridges are maintained in a safe condition and are not damaged by heavy construction traffic, the Sweetwater County Engineer Department requests that before contractors move heavy equipment over County roads, they contact the Engineer's Office. Mr. John Radosevich is the Sweetwater County Engineer; he can be contacted at (307) 872-6486.
TR	75	3	Sweetwater County Planning Department	Where oil and gas developments cause significant increases in traffic or impacts on County roads, oil/gas and mineral developers are encouraged to work with the Sweetwater County Engineering Department to evaluate and to implement any identified roadway construction or safety improvements. An important component in implementing roadway improvements is the equitable sharing of improvement costs by all involved.
TR	75	4	Sweetwater County Planning Department	Transportation Planning: Since oil and gas development is occurring throughout Sweetwater County and many public and private roads are being affected, a regional approach to transportation planning may be needed. An excellent example of this regional approach is the existing Wamsutter/Continental Divide Transportation Planning Committee which is comprised of oil and gas companies, private land owners, and government agencies who meet twice a year to discuss common transportation issues and problems. Since this committee already has been established by the Rawlins BLM District and many of the same companies are involved, it may be possible for the Rock Springs and Rawlins BLM Districts to work together in managing one Transportation Planning Committee. This would avoid forming a duplicate committee.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
TR	77	5	Individual	The transportation system must be analyzed on a full field basis. The well pads may only require short lengths of access road. However, transportation routes will be much longer. A single trip to a single well could exceed 50 miles in unpaved roads. Dust and exhaust emissions should be calculated based on total miles of travel by vehicle type. During certain weather conditions large amounts of soil will be deposited on paved roads resulting in additional dust. Stones and rocks left on paved roads also create safety hazards such as broken windshields. The cumulative effects of the entire transportation system, both existing and proposed, should be fully analyzed and alternatives developed to reduce the harmful effect of the dust and other hazards. These alternatives should include reduced speeds on lease roads. The effect of dust deposited on vegetation as it relates to the health of plants, and to the animals and birds which use these plants, should be studied and mitigation measures developed to reduce any harmful effects.
TR	80	24	Wyoming Outdoor Council	Furthermore, there is no doubt that other BLM policy continues to have full applicability even if the requirement to comply with NEPA has been reduced if one of the EPA categorical exclusions apply. We believe BLM should give especially careful attention to the provisions in the Gold Book. For example, the Gold Book recognizes that construction of "lower class roads" can meet access needs while better protecting the environment. Gold Book at 19. In fact, the Gold Book is replete with guidance on how to develop more "environmentally friendly" roads, including acknowledging that non-constructed (primitive) roads may be appropriate under some circumstances. Id. At 19-27. The Gold Book also contains a number of other provisions and considerations for protecting the environment that establish that the BMPs in the alternative discussed above are reasonable and worthy of full consideration by the BLM. See id. At 39-41 (discussing,
TR	81	10	Wyoming Game and Fish Department	Road construction and use is an issue, due to direct habitat loss, habitat fragmentation, traffic disturbance and collisions, and dust concerns. We recommend using the lowest road densities possible to minimize impacts to wildlife. Roads should be built to minimum standards. In areas where seasonal stipulations are in effect, locked gates, signs, and seasonal closures should be used to reduce vehicle traffic. Maintenance personnel should visit wells during mid-day hours to reduce harassment to wildlife in areas where seasonal stipulations are in effect. Close roads to dry well sites, where wells have completed production, and where redundant. When larger roads are needed into an area that has several small roads, smaller redundant roads should be closed. Closed roads should be obliterated, reseeded with native vegetation, and signs installed to inform the public. On heavily traveled roads where big game road kills become a concern, speed limits should be imposed to reduce losses. Pre-project planning should help reduce the construction of unneeded roads. Our local biologists are available for consultation on road placement to minimize impacts to wildlife.
TR	85	26	Colorado Division of Wildlife	Travel management should be taken into consideration in the planning of development of oil/gas activities. Increased public activity and recreation in this area as a result of new road/pipeline construction would negatively impact wildlife through associated human disturbance and habitat degradation. Negative impacts to wildlife caused by new road/pipeline construction could be minimized by closing new access roads and pipeline corridors to motor vehicle use by the public. Gating roads could be effective in limiting public motor vehicles, particularly where topography or vegetation provides additional barriers to off road motor vehicle use. The number of new roads, pipelines and other infrastructure should be kept at a minimum by incorporating prior planning of a logical layout and centralization of facilities.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
TR	85	27	Colorado Division of Wildlife	Road kills and indirect disturbance from noise both occur with increased traffic. Remote monitoring during the production phase would decrease the amount of traffic in the area. Large projects with multiple workers should use a mass shuttle method taking employees to the work site.
TR	91	20	Vermillion Ranch Limited Partnership	The EIS needs to incorporate the road systems for the two counties and coordinate transportation with both comments. Otherwise, the project could overwhelm existing roads in some locations or build duplicate and unnecessary roads in other locations. It is equally important that local sources of gravel be used rather than haul gravel material from several hundred miles away with resulting wear and tear on local roads.
TR	91	21	Vermillion Ranch Limited Partnership	The maps used in the EIS need to correctly reflect all of the county roads, rather than a select few state and county roads.
TR	93	24	Sweetwater County and Sweetwater County Conservation District	The EIS needs to include the road systems for the two counties and coordinate transportation and to display the roads on the maps. Without taking into account the county roads, the project could overwhelm existing roads in some locations or build duplicate and unnecessary roads in other locations. The maps used in the EIS need to correctly reflect all of the county roads, rather than a select few state and county roads
TR	93	25	Sweetwater County and Sweetwater County Conservation District	Moreover, road construction material, like gravel, should be taken from local borrow pits to the extent that local gravel sources are available. Transporting gravel and road bed material several hundred miles will only put additional burdens on the existing roads. The existing roads cannot handle repeated and heavy loads and need to be upgraded.
VI	68	7	Individual	[In the Johah Field] all I could hear was the whirl, rumble, grind, and crunch of the gas field.
VI	73	100	Biodiversity Conservation Alliance	Visual Resources The Hiawatha project area contains areas of high importance for visual resources, including the Kinney Rim North and South units, which conservation groups have proposed for Class I visual resource designation through the Great Divide RMP revision. See The Special Values of the Great Divide (downloaded at http://www.voiceforthewild.org/greatdivide/pubs/GreatDivideSpecialValuesReport-FinalPDF-WebOpt.PDF) at 35; we incorporate this publication into our scoping comments by reference. We understand that the BLM has no protections for these important visual resources in place under the Green River RMP; the point here is that there are important resources that the BLM has thus far failed to take action to protect, that these visual resources are important to the public, and that these undeveloped, citizens' proposed wilderness lands should be excluded from oil and gas development under the

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
VI	74	21	<p>Org. United States Environmental Protection Agency, Region 8</p> <p>Effect on visual character and scenic resources Visual impacts associated with the project's facilities and activities may affect the visual character and scenic resources of an area, including the aesthetic and/or functional quality of recreational experiences. This may include the introduction of impacts out of character with the setting and the visual impact of equipment and crews during construction and operational activities. The severity of these effects depends on a number of factors, including: can the surrounding landscape integrate visual changes without attracting attention; how far from, or visible to, sensitive viewing areas and/or roadways are the activities; how much disturbance will occur; what mitigation efforts are put forth to integrate activities and structures with the area; and/or what is the potential to reclaim disturbed landscapes? The EIS should evaluate these aspects, and detail mitigation steps that will be taken to minimize associated impacts. Interim and final reclamation work should allow disturbed sites to blend into the natural surroundings, to the extent possible.</p>
VI	74	23	<p>United States Environmental Protection Agency, Region 8</p> <p>. Light Pollution The EIS should address the issue of light pollution. Poorly designed lighting can waste energy and impact the view of the night sky. These problems can be addressed with efficient lighting systems designed to illuminate the ground or work area for safety and utility without causing glare, upward shine, or wasting energy. EPA suggests that the EIS address these issues and detail mitigation requirements, consistent with OSHA or other applicable safety requirements, as potential conditions included in the lease for implementation by the proponent.</p>
VI	82	3	<p>Individual</p> <p>Our experience in other areas is that this density of development destroys critical animal habitat and other ecological values, as well as cultural (archeology), and scenic attributes. Areas like the Kinney Rim make Wyoming unique and</p>
VI	91	22	<p>Vermillion Ranch Limited Partnership</p> <p>Most of the Wyoming portion of the project area is classified as VRM Class III, where visual modification is permitted. A portion along Highway 430 is Class II. It is recommended that, where necessary, the Class II be modified for drilling but that pipeline facilities be above-ground rather than buried. This results in less surface disturbance, loss of vegetation and less long-term visual changes. Experience shows that pipelines above ground can blend into the landscape, whereas burying pipelines leaves long-term vegetation changes and increased noxious weeds that replace former vegetation. Alternatively, pipelines that are ripped in leave less surface changes.</p>
VI	93	26	<p>Sweetwater County and Sweetwater County Conservation District</p> <p>Most of the Wyoming portion of the project area is classified as VRM Class III, where visual modification is permitted. A portion along Highway 430 is Class II. It is recommended that if necessary the Class II be modified for drilling but that pipeline facilities be above-ground or ripped in rather than buried where possible. This results in less surface disturbance, loss of vegetation and less long-term visual changes. Experience shows that pipelines above ground can blend into the landscape, whereas burying pipelines leaves long-term vegetation changes and increased noxious weeds that replace former vegetation.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WA	73	93	Biodiversity Conservation Alliance	All streams classified as potentially harboring native fishes and which could be potentially affected by upstream activities in the Hiawatha project area must be mapped in the Draft EIS, and the specific, site-specific impacts of the proposed roads, wells, and pipelines must be evaluated to satisfy NEPA's 'hard look' requirement. Likely impacts include sedimentation of streams associated with roads, wellpads, and pipeline rights-of-way; contamination of streams via chemical spills; and changes in the flow regimes, flow rates, and water quality of streams resulting from surface
WA	73	114	Biodiversity Conservation Alliance	<p>Water Quality</p> <p>We are concerned that the Proposed Action has the potential to result in serious water quality problems. Water produced as a byproduct of natural gas production is likely to be highly toxic. Thus, produced water from gas development in the planning area would be expected to be of very low quality and high toxicity. If the lining of reserve pits is an optional measure rather than an ironclad standard, significant amounts of this toxic water could leak from reserve pits to enter shallow subsurface aquifers and/or intermittent stream channels, thereby polluting the waterways downstream. The BLM must present no analysis of the impacts of such leakage. To remedy this problem, the BLM should require that reserve pits be lined in all cases, or, better yet, require that pitless drilling techniques be used so that produced effluent is</p>
WA	73	115	Biodiversity Conservation Alliance	Magnesium chloride has been used in conjunction with water for dust abatement purposes in neighboring projects. What are the impacts of the use of magnesium chloride on water quality in downstream waterways that are home to sensitive or Endangered fishes, such as the Little Snake River? Certainly this compound will be washed into intermittent waterways and find its way into permanent streams during downpours.
WA	73	116	Biodiversity Conservation Alliance	The project also inherently entails the possibility that drilling activities will cause cross-contamination of aquifers, as deep, poor-quality waters may leak upward into shallower aquifers that feed wells or springs. The EIS must include analysis of the impacts of aquifer cross-contamination through improperly cased production or reinjection wells. What are the odds of such an accident? The BLM must present an analysis of this eventuality and prepare a mitigation plan should
WA	73	117	Biodiversity Conservation Alliance	A failure to plan the locations of wells, roads, and pipelines would once again render an analysis of impacts impossible, this time for water quality.
WA	73	138	Biodiversity Conservation Alliance	<p>Floodplains</p> <p>The BLM must disclose the locations of floodplains, and also map the roads, pipelines, and wellsites in order to evaluate the potential impact of each alternative on floodplains. Certainly, there are numerous floodplains in the project area associated with intermittent watercourses distributed throughout the Red Desert. These floodplains must not be the site of construction or drilling activities in accordance with Executive Order 11990. This Executive Order is not discretionary, and thus the BLM should require that all surface disturbing activities comply with its provisions, without exception.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WA	74	3	United States Environmental Protection Agency, Region 8	<p>Executive Order 11990, "Protection of Wetlands," signed in 1978 and amended in 1988, addresses potential long and short-term adverse impacts associated with the destruction or modification of wetlands. In addition, the national wetlands policy has established an interim goal of "No Overall Net Loss of the Nation's Remaining Wetlands" and a long-term goal of increasing quantity/quality of the Nation's wetlands resource base. ("Presidential Wetland Policy of 1993" website: http://www.usace.army.mil/cw/cecwo/reg/aug93wet.htm)</p> <p>Due to the time it can take to adequately reclaim some disturbed wetlands, it is suggested that the BLM require mitigation of wetland disturbance during the project operating time, and that mitigation for any 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, it is suggested that a two-to-one mitigation of wetland disturbance be required. Wetland restoration is preferred to wetland creation or enhancement because it has a higher rate of success. Mitigation requirements under 40 CFR Section 230 address the replacement of the wetland functions and values that are unavoidably lost, and any additional BLM, State and local mitigation requirements should be adhered to.</p> <p>A wetlands mitigation plan should be provided for the project and should include, but not be limited to:</p> <ul style="list-style-type: none"> · Commitments to acquire and start mitigation work prior to project construction; · Detailed schedules of pipeline and wetland creation/restoration work; · Detailed construction plans; · A detailed mitigation monitoring plan, including a time table; · Detailed performance criteria to measure success; · Detailed specifications and commitments for corrective measures to be taken if performance criteria are not met; · Detailed specifications and commitments to control invasive species; and · Commitments to the establishment of a protection and management plan in perpetuity (i.e., legal surveys of the specific boundaries with buffers and conservation easements that are given to a land conservancy organization) for all mitigation areas. <p>We encourage the delineation and marking of perennial seeps and springs and wetlands on maps and on the ground before activity begins so industry employees will be able to avoid them. We recommend establishment of wetland and riparian habitat buffer zones to avoid adverse impacts to streams, wetlands, and riparian areas.</p> <p>We recommend a 100-foot buffer of native vegetation be provided around each mitigation site to help enhance wildlife habitat and protect the site from sediment buildup that could result from land use practices immediately outside the buffer area.</p> <p>If stream bank disturbances result, then we suggest stabilizing stream banks using soil bioengineering techniques.</p> <p>In accordance with the intent of the order and national policy, EPA suggests a mitigation commitment that indirect draining of, or direct disturbance of, wetland areas will be avoided if at all possible, and a commitment to replace in kind such unavoidably impacted wetlands. EPA suggests that the BLM require complete avoidance of disturbance to any fen wetland (a Category I resource), and where feasible the use of directional drilling for routing of ancillaries under all water crossings and their associated floodplains, wetlands and forest lands. EPA also recommends that the project plan address specific requirements to:</p> <ul style="list-style-type: none"> · Maintain physical integrity of aquatic ecosystems; · Assure an amount and distribution of woody debris sufficient to sustain physical and biological complexity; · Assure adequate summer and winter thermal regulation;

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WA	74	4	United States Environmental Protection Agency, Region 8	<p>The NEPA documentation should clearly describe water bodies and ground water resources within the analysis area that may be impacted by project activities. Area geology, topography, soils and stream stability in terms of erosion and mass failure potential discussions may be necessary to adequately portray the potential risk to surface and subsurface water quality and quantity, aquatic habitat, and other resources from specific project activities. Appropriate Best Management Practices (BMPs) to reduce potential non-point sources of pollution from this project's proposed activities should be designed into the project.</p> <p>Events such as vehicular spills of hazardous or toxic materials could result in significantly more adverse habitat and water quality impacts. The NEPA documentation should discuss the frequency or likelihood of such events, and describe spill and release response capabilities.</p> <p>Storm water management should also be evaluated. To protect water quality from storm water runoff, including contaminated runoff from construction, operation, and maintenance activities, specific practices should be implemented. These practices include the following:</p> <ul style="list-style-type: none"> · Preserve existing vegetation during clearing and grading; · Divert upland runoff around exposed soils; · Use sediment barriers to trap soil in runoff where sheet flows occur; · Protect slopes and channels from gullying; · Install sediment traps and settling basins to reduce the velocity of channeled runoff; · Store chemicals for project activities in covered containers in a specific location; · Identify areas and procedures for fueling, and provide a protected vehicle washout; · Preserve vegetation near all waterways; · Ensure materials and education for cleaning up spills and leaks; and, · Inspect the effectiveness of best management practices.
WA	74	7	United States Environmental Protection Agency, Region 8	<p>Produced waters and fracturing fluids</p> <p>Constituents potentially present in produced waters include total dissolved solids (TDS), hydrocarbons, iron, manganese, selenium, mercury, and other metals, and any other constituents with the potential to adversely impact surface and ground water. These constituents should be evaluated in the EIS and monitored during the implementation of the project. Potential may exist for adverse impact by, and/or bioaccumulation of, these and other constituents in the ecosystems of any affected waters. Specifically, the potential for mercury content in oil and gas development produced water is indicated in several sources, including a report issued by the U.S. Environmental Protection Agency, Office of Research and Development; Mercury in Petroleum and Natural Gas: Estimation of Emissions from Production, Processing, and Combustion, EPA-600/R-01-066, September, 2001. This report states that; "Although its concentration is a very small percentage of the amount in water, methyl mercury concentrates in the aquatic food chain. Predatory organisms at the top of the aquatic food web acquire and accumulate the methyl mercury in their diets and present elevated concentrations. While the concentration at the bottom of the aquatic food chain may be at the low parts per trillion levels, at the top, fish tissue can present mercury concentrations in excess of 1 ppb range. Bio-concentration factors are thus on the order of 104 to 105." Only limited data are available concerning mercury in produced waters, but the report estimates it may be in the 1 ppb range. Aquatic life freshwater Ambient Water Quality Criteria (AWQC) levels are 1.4 ppb acute and 0.77 ppb chronic (See EPA's National Water Quality Criteria at http://www.epa.gov/waterscience/criteria/wqcriteria.html) Should any produced waters be discharged to surface waters, we suggest that evaluation of any existing work related to impacts by mercury, other metals, or other potential adverse constituents should be made, and a monitoring plan prepared for this project. The EIS and subsequent Record of Decision (ROD) should provide for needed mitigation in case past work and/or the project monitoring results indicate potential adverse impact. Potential methods for treatment and discharge of produced waters should be evaluated. Reinjection of produced waters is generally preferable to the use</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WA	74	8	United States Environmental Protection Agency, Region 8	Another important aspect of oil and gas drilling is the use of fracturing fluids to enhance product recovery. The EIS should identify whether hydraulic fracturing may be used to develop the resource and evaluate its potential environmental impacts. The fluids to be used in hydraulic fracturing should be assessed and the means to prevent spills of toxic components of the fracturing fluids described.
WA	75	9	Sweetwater County Planning Department	Water Resources: The Sweetwater County Comprehensive Plan - 2002 states the following goals related to development and water resources: "Determine/assess the impact of development on water resources as part of the approval process" and "Require developing interests to provide verification as to the adequacy and safety of water resources." With these goals in mind, the Sweetwater County Planning Department encourages the oil and gas companies to work with the BLM and the State of Wyoming to ensure that water quality, quantity and disposal issues are addressed in a manner that meet the needs of today and of the future. Water quality to Vermillion Creek and its tributaries is of special importance.
WA	77	4	Individual	Liquid hydrocarbons are frequently released to the soil where they can migrate to ground water, surface water, or evaporate to the atmosphere. These releases may be due to spills, equipment leakage or failure, operator's error, equipment design or operation, or a myriad of reasons. The released liquid presents a hazard to wildlife, livestock, aquatic life and the public health and safety. The release of liquid hydrocarbons and other hazardous material must be readily detectable and the migration of hydrocarbon liquids from the production equipment pad or site prevented or reduced. Water wells can become contaminated due to operator error, equipment failure, and migration of spilled fluids or gases and fluids from damaged well bores. Water wells must be tested on a routine basis to detect any contamination. A water well contamination contingency plan must be put in place prior to the drilling of any gas wells.
WA	79	2	Environmental Protection Foundation	<p>Table 1- Preliminary Estimate of Surface Area Disturbance in the Public Scoping Notice estimates that about 8,075 long term, and 12,624 short term, acres of habitat will be impacted, but does not mention produced water disposal facilities that could significantly add to the total impact area. The Table should be supplemented to disclose clearly the acreage which will be affected by such facilities.</p> <p>Means for mitigating such impacts are available, such as off-site disposal, re-injection, or development of evaporative ponds within the project area. No mitigations are discussed in the scoping material however, and no cumulative impacts are addressed. It is critical that this issue be carefully reviewed and unless assurance can be given against adverse impacts, all best available management practices and best available technology should be considered and the best of these strictly applied.</p> <p>While there are some potential means for mitigating the impacts, such as off-site disposal at facilities out of the project area, re-injection, or development of evaporative ponds within the project area, non of these are discussed in the scoping material and the accumulative impacts addressed. We believe that is it critical that this issue be carefully reviewed and that all best available management practices and best available technology be applied with strict adherence.</p>
WA	81	11	Wyoming Game and Fish Department	The following streams are found within the project area: Canyon Creek, Vermillion Creek, and Coyote Creek. We recommend the following stipulations to prevent adverse impacts to aquatic resources: Prohibit construction of well sites, access roads, and pipelines within 500 feet of surface water and/or riparian areas. If BLM is considering an exception to this mitigation measures, the Wyoming Game and Fish Department should be consulted prior to approving the exception.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>Best management practices are implemented to reduce erosion and prevent sediments from reaching the nearby waterways.</p> <p>All drilling fluid storage ponds should be lined to eliminate possible groundwater contamination.</p> <p>Drill pad drainage should be designed to provide for the removal of excess water while containing all toxic material within a proper sized pit. Adequate capacity should be provided in the pits to handle excess precipitation.</p> <p>Release of hydrostatic test waters during pipeline construction could result in alterations of stream channels, increased sediment loads and additions of potentially toxic chemicals into drainages, thereby resulting in adverse impacts to aquatic biota. Consequently, the direct discharge of hydrostatic test waters to streams should be avoided. Discharge should occur into a temporary sedimentation basin if total suspended solids concentrations are significantly higher in the test water than in the receiving water. Dewatering of temporary sedimentation basins should then be done in a manner that precludes erosion.</p>
WA	85	28	Colorado Division of Wildlife	The proposed area has multiple drainages, perennial and dry creeks. Adequately sized culvers should be considered in wet and dry creek crossings. This eliminates the disturbance of sediment in the creek channel. It also protects the water source from contamination from motor vehicles. This measure would help protect aquatic wildlife and riparian areas.
WA	91	18	Vermillion Ranch Limited Partnership	The EIS needs to consider the impacts of drilling through the large aquifer that covers much of the basin at about 3000 feet deep. The water is not currently considered suitable for domestic use but the drilling program, if not done carefully, might adversely affect the aquifer. In the future, it may be possible to treat the water to make it potable and the amount of water represents a huge resource.
WA	91	19	Vermillion Ranch Limited Partnership	Currently, most of the produced water will be reinjected into aquifers. Here too it is important that the reinjection sites be carefully selected so water resources are not compromised. Only if the produced water is of sufficient quality, should it be used for reclamation or dust abatement.
WA	93	20	Sweetwater County and Sweetwater County Conservation District	The project description calls for produced water to be reinjected into non-potable aquifers. Any reinjection must protect aquifers.
WA	93	21	Sweetwater County and Sweetwater County Conservation District	The EIS should also consider the option of using produced water, only if it is of sufficient quality, to facilitate reclamation and perhaps improve rangeland conditions. In some cases, produced water can be treated and then used for dust abatement, reclamation, and, if potable, to provide another source of water for wildlife and livestock.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WA	93	22	Sweetwater County and Sweetwater County Conservation District	<p>BLM needs to consistently use the term "best management practices or BMPs" for nonpoint sources of water pollution. As part of the Clean Water Act regulatory scheme, nonpoint sources of water pollution are regulated through BMPs. The EIS should incorporate the WDEQ BMPs. Wyoming Nonpoint Source Management Plan-Update (Sept. 2000).</p> <p>It is confusing when BLM refers to BMPs in the Gold Book that covers other aspects of oil and gas surface development. The EIS needs to clearly distinguish between the two standards.</p>
WA	93	23	Sweetwater County and Sweetwater County Conservation District	Much of the construction will also require storm water drainage permits.
WE	73	33	Biodiversity Conservation Alliance	<p>Lower-Impact Pipeline Construction</p> <p>The BLM must consider and analyze brush-hogging pipeline rights-of-way instead of blading them. Brush-hogging, which has become the preferred method of clearing rights-of-way in sagebrush on the Thunder Basin National Grassland, allows at least some shrub recovery following burial of underground pipelines. This is a lower-impact alternative that speeds recovery of the native vegetation.</p>
WE	73	52	Biodiversity Conservation Alliance	<p>PLANTS</p> <p>We are concerned that BLM Sensitive plant species within the project area be adequately protected if this project moves forward. We are particularly concerned about the viability of the Gibben's beardtongue, which is found along the Flattop Mountain massif. In addition to this species and other BLM Sensitive plants, we are concerned about impacts to Crandall's rockcress and desert glandular phaececia, should they be found within the project area. These plants are listed as G2S1 and G4T1S1 by the Wyoming Natural Diversity Database, both critically imperiled throughout Wyoming due</p>
WE	73	98	Biodiversity Conservation Alliance	<p>Plant Species of Concern</p> <p>The BLM must present a spatial analysis of the occurrence of habitat judged important for survival for plant species of concern. Secondly, the BLM must define in an unequivocal way the magnitude or level of impact that would threaten the viability of the local population. Finally, and perhaps most importantly, a spatial presentation of wells, roads, and pipeline layouts is a prerequisite to determining the level of significant impact under this Impact Significance Criterion. Only if the locations of roads, wells, and pipelines are known to the BLM renders it possible for the agency to determine to what extent roads, wells, and pipelines will impact the habitats of these plant species of concern.</p>
WE	73	99	Biodiversity Conservation Alliance	<p>Noxious weeds</p> <p>Measures to impede the invasion of noxious weeds must be bound into the forthcoming EIS. Gravel brought onto construction sites should have to weed-free. And weeds brought in from off-site on mud-encrusted construction, drilling, or production vehicles must be interdicted. Will there be a requirement to power wash all equipment, pickup trucks, and other weed-seed transporters prior to entering the project area? Such a measure should be mandated in the Draft EIS. Halogeton is epidemic in the project area; in a site visit to abandoned and reclaimed wellpads east of the Kinney Rim in 2006, we observed a great deal of halogeton. Current management practices are failing at preventing the invasion of noxious weeds, and that additional, stronger steps must be taken in the future.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WE	74	13	United States Environmental Protection Agency, Region 8	<p>Noxious Weeds and Invasive Plants</p> <p>Among the greatest threats to biodiversity is the spread of noxious weeds and exotic (non-indigenous) plants. Many noxious weeds can out-compete native plants and produce a monoculture that has little or no plant species diversity or benefit to wildlife. Noxious weeds tend to gain a foothold where there is disturbance in the ecosystem. Oil and gas development activities can cause such disturbances.</p> <p>Studies show that new roads and pipeline/utility ROWs can become a pathway for the spread of invasive plants; therefore, we suggest that the vegetation management plan address control of such plant intrusions. As this project is in already developed oil and gas fields, the current trend for weed infestations in the affected project area should be evaluated for mitigation effectiveness and improvements if warranted. Early recognition and control of new infestations is essential to stopping the spread of infestation and avoiding future widespread use of herbicides, which could correspondingly have more adverse impacts on biodiversity and nearby water quality. There are a number of prevention measures available such as reseeding disturbed areas as soon as possible and cleaning equipment and tires prior to transportation to an un-infested area. Should an infestation occur or already be present, EPA supports integrated weed management (e.g. effective mix of cultural, education and prevention, biological, mechanical, chemical management, etc.). However, we encourage prioritization of management techniques that focus on non-chemical treatments first, with reliance on herbicides being the last resort. We recommend implementing yearly review and planning activity requirements for the above concerns, including evaluation of effectiveness to date.</p> <p>We also note that hay can be a source of noxious weed seed. Hay/straw is used as mulch to slow erosion and encourage seed germination, and used to feed horses in hunting and recreation camps, and as wildlife feed during harsh winters. Cattle that are released on grazing allotments or horses used on public lands can transport undigested weed seed and spread it in their manure. The BLM should consider requiring use of certified weed free hay in mitigation.</p>
WE	74	15	United States Environmental Protection Agency, Region 8	<p>We recommend replacement trees be planted to offset any unavoidable tree loss. We generally recommend that native saplings be used, if practicable, at a minimum of 1:1. In general, replacement trees should be planted close to where the loss occurred. However, mitigation might also include assisting county, state, or federal agencies with any on going or planned forest or tree reclamation projects in the watersheds affected.</p>
WE	81	9	Wyoming Game and Fish Department	<p>Reclamation of disturbed sites is a key issue. Native habitat should be returned to pre-disturbance condition as soon as possible. The reclamation analysis should outline minimum reclamation standards (we strongly encourage using performance-based standards) and emphasize the use of native plant species. Re-vegetated sites should be protected until vegetation is self-sustaining.</p>
WE	88	2	Individual	<p>My concerns regarding this kind of project are 2) that seeding of exposed soil is expedited to avoid erosion and weeds. Road ditches or pad areas even though they may be disturbed again later should be seeded to a competitive grass that has quick establishment characteristics. Native species mixes can be used in later years when the sites are final graded for reclamation.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WE	91	3	Vermillion Ranch Limited Partnership	VRLP supports the 5% surface disturbance proposal adopted by Moffat County as part of the Sagebrush Initiative. This 5% surface disturbance limit needs to be applied throughout the project area for a number of reasons. First, the project area is located in cold mountain desert where reclamation without extraordinary measures can take up to 20 years.
WE	91	14	Vermillion Ranch Limited Partnership	<p>It is expected that there will be pressure to move the project construction to the salt sage flats to avoid sagebrush habitat. While Vermillion understands the preference to avoid sagebrush habitat, but in the long run it is the incorrect approach. This could have significant adverse environmental impacts by increasing reclamation times, removing native vegetation, and disproportionately affecting livestock grazing operations and other types of habitat.</p> <p>BLM should site construction to the extent possible where reclamation is likely to have the best outcome. This will be in the sage brush habitats and will also allow for rejuvenation of decadent sagebrush and other vegetation. Revegetation takes much longer on the salt sage flats than in sagebrush habitat. The project area is classified as a cool mountain desert, where the lack of water, cold temperatures, and high altitude make reclamation more challenging. If all construction is pushed to the salt sage areas, halogeton and other noxious weeds, will replace slower growing native vegetation, thus destroying rangelands and forage values for livestock and wildlife.</p>
WE	91	16	Vermillion Ranch Limited Partnership	VRLP believes that the BLM and project manager must work closely with local weed and pest agencies to control noxious weeds. While there are many factors spreading noxious weeds, surface disturbance and the removal of vegetation will facilitate invasions. Aggressive and early control methods are necessary.
WE	93	18	Sweetwater County and Sweetwater County Conservation District	BLM and the project manager need to work closely with local weed and pest agencies to control noxious weeds. While there are many factors that lead to the dissemination of noxious weeds, surface disturbance and the removal of vegetation will facilitate invasions. Aggressive and early control methods are necessary.
WE	94	7	Individual	Weeds are major concern in Hiawatha, Halogeton being the major noxious weed at least on the Colorado side. We have established a Northwest Colorado Weed Partnership with gas companies in our area, the BLM, Colorado State Land Board and Moffat County are working together for past two years to combat this spread of noxious weeds. Our mission is to control the spread of noxious weeds on a landscape basis. The companies control the weeds on their pads and access roads and we are asking them to join the partnership to control the spread of these weeds from the disturbance area. We are working from the outside bringing it in towards the development. We would ask that Wyoming join in this partnership to expand across the state line to control the spread of noxious weeds.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	60	3	Individual	Impacts on wildlife are a major concern. I refer you to Hall Sawyer's study in the Pinedale Anticline in regards to mule
WI	65	1	Sagebrush Sea Campaign	<p>The distribution of greater sage-grouse (<i>Centrocercus urophasianus</i>) has declined by at least 44 percent rangewide while overall abundance has decreased by up to 93 percent from presumed historic levels (Braun, unpubl. Report 2006). These decreases are the result of habitat loss, fragmentation, and degradation.</p> <p>Ongoing research demonstrates the harmful impacts of natural gas (coalbed methane) development on greater sage grouse and their habitat (www.sagebrushsea.org/th_energy_sage_grouse_study3.htm). Holloran (Ph.D. Diss., 2005) studied sage grouse population response to natural gas field development in western Wyoming (www.sagebrushsea.org/th_energy_sage_grouse_study.htm). The study found:</p> <ul style="list-style-type: none"> -Populations of breeding males on leks (sage grouse mating sites) in areas subjected to full-field natural gas development in the Pinedale Anticline and Jonah fields declined by an average of 51 percent from the year prior to development to 2004, compared to only a 3 percent decline at undisturbed leks. -Males at three leks surrounded by natural gas development declined by 89 percent; two of the three leks were abandoned entirely within 3 to 4 years of initiation of gas drilling. -Active drilling within 3.1 miles of a sage grouse lek reduced the number of breeding males that used the lek. -As road traffic increased, the number of breeding males on affected leks decreased. -As well density increased, the number of breeding males on affected leks decreased. -Females strongly avoided nesting in areas of high well density. -There was a 21 percent decline in the population of nesting females compared to the undisturbed females over the 5 years of the study. -Females nesting in developed areas had a significantly lower survival rate than female grouse in undeveloped areas. Although nest success rates were higher in developed areas, this increase was not sufficient to overcome the reduced female survival rates, resulting in an overall 21 percent decline in sage grouse population growth in developed gas fields compared to undeveloped areas. -Population reductions likely result from a combination of dispersal away from gas fields and increased mortality rates for birds affected by development. -The study's findings suggest, "current development stipulations are inadequate to maintain greater sage-grouse breeding populations in natural gas fields" (p. 57).
WI	65	2	Sagebrush Sea Campaign	Enclosed is a copy of Braun, "A Blueprint for Sage Grouse Conservation and Recovery" (www.sagebrushsea.org/sage_grouse_blueprint.htm). Please incorporate recommendations from this report in the Hiawatha Regional Energy Development Project Environmental Impact Statement to help conserve sage grouse in the

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	66	1	RMEF	Please seek formal, complete input from Wyoming G & F and Colorado DOW regarding wildlife. Use the info in the plan.
WI	68	3	Individual	Meaningful protection for land that had been identified as suitable habitat for the endangered black-footed ferret because of white-tailed prairie dog populations must be part of any plan for resource extraction and development.
WI	68	8	Individual	I am particularly concerned with the effect this plan would have on wildlife populations. I'm sure that you are well aware of Hall Sawyer's research on the effects of road density and other disturbances on wildlife survival rates in the Jonah Field and surrounding region. The conclusions are clear that wildlife populations have suffered.
WI	68	10	Individual	Protecting unroaded and wild areas for the benefit of wildlife... must be part of any plan.
WI	69	5	Individual	This absurd project should not even be considered until the BLM takes into account the following factors 4. Prohibiting all roads and wells from disrupting the Hiawatha Complex white-tailed prairie dog complex which is crucial for the successful reintroduction of the black-footed ferret
WI	71	2	Individual	Also, an important white-tailed prairie dog complex, the Hiawatha Complex, lies within the project area. Identified in 1995 as suitable for the reintroduction of the endangered black-footed ferret, this area needs to be protected by the BLM so that the success of future ferret reintroduction is maximized.
WI	72	1	Individual	This area is important to the White-Tailed Prairie Dog which is a cornerstone species for Eagles, Hawks, other raptors, Foxes, and Coyotes.
WI	73	3	Biodiversity Conservation Alliance	Second, the project should protect and enhance the ability of the Hiawatha prairie dog complex to recover and sustain a black-footed ferret transplant effort, as proposed during the 1990s. Large prairie dog complexes, suitable for ferret reintroduction, are becoming increasingly scarce, and surface developments should be sited a respectful distance away

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	73	34	Biodiversity Conservation Alliance	<p>Preventing Bird Deaths at Burners</p> <p>We have received reports that burners may represent a substantial cause of mortality for passerine birds. Apparently, birds fly into the burners and are then killed by heat, gases, and/or flames. Fitting each burner with screens to exclude songbirds is an easy way to prevent additional mortality (it costs about \$100 per unit to retrofit burners with screens, and could be even cheaper if they start out with screens). This measure should be required throughout the project.</p>
WI	73	53	Biodiversity Conservation Alliance	<p>WILDLIFE</p> <p>The conversion of the Hiawatha project area into a full-field development for natural gas with 40-acre well spacing and the accompanying maze of roads, pipelines, and wellpads will have major impacts on local wildlife populations. Will major trunk roads run across big game migration routes, increasing roadkill? Will wells, which must be serviced year-round, be sited on crucial winter ranges or within three miles of sage grouse leks, with production-oriented traffic driving sensitive wildlife away from critically important habitats? What portions of the project area will go to full field development, and which will be left undeveloped? If 4,207 wells are drilled, will the entire project area be carpeted with wells at 40-acre</p>
WI	73	54	Biodiversity Conservation Alliance	<p>WGFD (1998) has set forth recommendations for allowing habitat-disturbing activities and mitigation for these activities if allowed. Federal Candidate Species and Native Species Status 1 and 2 receive a mitigation category of "Vital," for which habitat directly limits populations and restoration may be impossible; habitat function must be maintained if habitat modification is allowed to occur. In the Hiawatha project area, species in this category likely to be impacted by the project include mountain plover, bald eagle, Wyoming pocket gopher, Townsend's big-eared bat, roundtail chub, bluehead sucker, and flannelmouth sucker. Habitats such as Crucial Winter and Crucial Winter Relief Ranges also receive a mitigation category of "Vital," regardless of whether or not the crucial ranges of two or more species overlap. Native Species Status 3 receive a mitigation category of "High," for which WGFD recommend no net loss of habitat function through enhancement of degraded habitat when a habitat disturbing project is proposed. In the Hiawatha project area, species in this category likely to be impacted by the project include the merlin, peregrine falcon, long-billed curlew, dwarf shrew, white-tailed prairie dog, Great Basin pocket mouse, silky pocket mouse, and swift fox. Big game winter-yearlong ranges and parturition areas also fall under the "High" reclamation category, demanding no net loss of habitat function. Furthermore, for Endangered or Threatened Species such as the razorback sucker, bonytail, Colorado pikeminnow, humpback chub, and black-footed ferret, WGFD recommends exclusion of any habitat impacting activity. For these species, "The Commission recognizes that some wildlife or wildlife habitats are so rare, complex and/or fragile that mitigation options are not available. Total exclusion of adverse impacts is all that will ensure preservation of these irreplaceable habitats" (Ibid., p. 4). We concur wholeheartedly, and point out that FLPMA carries a legal requirement for the BLM to manage its lands in accord with state directives such as the WGFD Mitigation Policy. The BLM should clarify in the FEIS that wildlife mitigation measures will indeed be implemented on every acre of sensitive wildlife habitat, not just in areas where sensitive habitats for two different species overlap.</p>
WI	73	55	Biodiversity Conservation Alliance	<p>In addition, recent research out of the University of Wyoming has confirmed the presence of pygmy rabbits south of Rawlins along the area between I-80 and Baggs, in tall sagebrush habitats on sand dunes. These habitats are also found in the Hiawatha project area, and as this area is now known to fall squarely within the range of the pygmy rabbit, baseline field surveys should be conducted to determine the distribution and abundance of pygmy rabbits throughout the project area as part of the EIS process. Identified pygmy rabbit habitats should then be protected through a moratorium on surface-disturbance activities to prevent habitat fragmentation and destruction.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	73	56	Biodiversity Conservation Alliance	<p>Seasonal stipulations for surface disturbance are commonly proposed for important big game winter habitat, sage grouse and sharp-tail leks and crucial winter relief range, and raptor nests. These seasonal stipulations are insufficient in and of themselves, as they do not prevent roads and wells from being sited in sensitive habitats when the animals are not present, thereby degrading habitat quality during the crucial season. But in addition to this important shortcoming, seasonal stipulations are essentially meaningless because waivers are almost always approved on request. For all wildlife species, waivers to seasonal protections are commonly made available at the Operator's request and the approval of the Authorizing Officer. The BLM's pathetic record of waiving these seasonal restrictions is a dismal proof that they are essentially voluntary and meaningless: In 2003 alone, the Pinedale Field Office granted 38 of 42 exceptions (over 90%), Rock Springs Field Office granted 9 of 11 exceptions (82%), and the Rawlins Field Office granted 12 of 16 exceptions (75%). If the BLM is going to grant most exceptions to these seasonal stipulations, then major impacts to wildlife on sensitive ranges will continue to occur, and the mitigative value of these seasonal stipulations is voided. For these reasons, prohibitions on surface disturbance, rather than seasonal stipulations, are the minimum protections needed on sensitive wildlife habitats.</p>
WI	73	58	Biodiversity Conservation Alliance	<p>Several mitigation measures have been proven ineffective at preventing significant impacts in ecological situations nearly identical to those found in the Hiawatha project area. The Sublette Mule Deer Study (Sawyer et al. 2004, 2005, 2006) has revealed that oil and gas development in crucial mule deer winter range, when accompanied by seasonal prohibitions on construction and drilling, has resulted in the abandonment of impacted crucial winter range by mule deer in most winters, and is linked with a decline of the impacted mule deer population using the winter range versus stable population numbers in neighboring undeveloped areas. A PhD Dissertation by Matt Holloran (2005) reveals that sage grouse populations "protected" by seasonal restrictions on drilling and construction in the Pinedale Anticline field resulted in abandonment of leks by males in developed areas as well as a decline in the survivorship of females in the same areas. Kaiser (2006) subsequently found that hens from leks in gas fields nested later and had lower chick survivorship than hens from leks outside gas fields, under the selfsame seasonal mitigation measures. And Naugle (2006a,b) found that CBM development with standard sage grouse mitigation measures led to population declines in the Powder River Basin as well as displacement of sage grouse from important breeding, nesting, and wintering habitat. The BLM should not make the mistake of claiming that these particular mitigation measures will reduce impacts to their respective species to a level of insignificance, as they have been proven not to work.</p> <p>The impacts on wildlife species are wholly dependent on the placement and mitigation measures of development that occurs on sensitive wildlife habitats. The actual location of proposed development must therefore be disclosed and analyzed against sensitive wildlife habitats in order for BLM to provide the "hard look" required by NEPA.</p>
WI	73	59	Biodiversity Conservation Alliance	<p>Habitat Fragmentation</p> <p>Habitat fragmentation occurs whenever there is a change in the spatial continuity of the habitat that affects occupancy, survival or reproduction in a particular species, whether or not a net loss of habitat accompanies the spatial change (Franklin et al. 2002). Oil and gas development, with its sprawl of drilling pads, access roads, and pipelines, is the primary cause of habitat fragmentation in the habitats of the Hiawatha project area. We urge the BLM to analyze and adopt a Proposed Action that uses directional drilling and well clustering to minimize habitat fragmentation, and thus avoid the unnecessary and undue degradation of lands and resources inherent to traditional oil and gas development.</p> <p>Although the portion of the landscape physically disturbed by roads, wellpads, and pipelines is often a relatively small percentage of the overall landscape, GIS analysis of full-field oil and gas development incorporating quarter-mile buffers to account for habitat degradation due to edge effects indicates that almost 100% of lands within a fully developed gas field are degraded – and this is for much broader well-spacing than 40 acres (Weller et al. 2002). In this way, the development of an oil and gas field results in widespread habitat destruction that extends well beyond the acreage of roads and wellpads that are bulldozed in. The BLM's impacts analysis for this project must therefore include not only acreage directly disturbed by a bulldozer blade but also acreage of habitat with degraded function resulting from wildlife avoidance of areas near roads.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	73	60	Biodiversity Conservation Alliance	Dwarf shrews, a BLM Sensitive Species, have been collected in eastern Sweetwater County and are likely present in the Hiawatha project area. Preble's shrews are sagebrush obligates and may also be found in the project area. Shrews are very small and are poor dispersers. Roads and well pads may constitute dispersal barriers for these tiny mammals. With this in mind, the BLM must analyze the effects of the intensive fragmentation of sagebrush steppe by roads and wellpads, the effects of this fragmentation on shrew dispersal, the degree to which shrew populations would be split into small metapopulations, and the effects that such population shifts would have on vulnerability to inbreeding, stochastic disturbance events such as adverse weather or disease outbreaks, predation, and ultimately to the overall viability of
WI	73	61	Biodiversity Conservation Alliance	Predation is believed to be the major factor in the decline of burrowing owl populations in Canada, and habitat fragmentation also serves to increase predation risk in burrowing owls (James et al. 1997, Hjertaas 1997). The BLM must analyze the increase in predation on burrowing owls for all alternatives and reach conclusions about burrowing owl population dynamics that are supported by science.
WI	73	62	Biodiversity Conservation Alliance	Fragmentation of shrubsteppe habitats has a particularly strong negative impact on passerine birds. Three species of sagebrush obligate passerines, the sage sparrow, Brewer's sparrow, and sage thrasher, have been documented or are likely to be found in the Hiawatha project area. Knick and Rotenberry (1995) and found that sage sparrows and sage thrashers decreased with decreasing patch size and percent sagebrush cover, and reached the following conclusion: "Our results demonstrate that fragmentation of shrubsteppe significantly influenced the presence of shrub-obligate species. Because of restoration difficulties, the disturbance of semiarid shrubsteppe may cause irreversible loss of habitat and significant long-term consequences for the conservation of shrub-obligate birds" (p. 1059). Ingelfinger (2001) found significant declines in nesting songbirds within 100m of gas field roads, and also found that sage sparrows declined near pipelines. Kerley (1994) found that 67% of songbird species selected for the tallest available sagebrush stands, and nest success was associated with 41% shrub cover, while the two nests in 15% shrub cover were both unsuccessful. Oil and gas development also creates nesting structures for ravens, which are an important nest predator on sagebrush bird species (Ingelfinger 2001).
WI	73	63	Biodiversity Conservation Alliance	Ingelfinger (2001) conducted a study of sagebrush birds in a western Wyoming gas field and found that as gravel roads increased, densities of sagebrush obligate birds, Brewer's sparrows, and sage sparrows declined, while horned larks (a grassland species) increased. According to his findings, "roads associated with natural gas development negatively impact sagebrush obligate passerines. Impacts are greatest along access roads where traffic volume is high" (p. 69), but "bird densities are reduced along roadways regardless of traffic volume" (p.71). Ingelfinger (2001) found significant declines in nesting songbirds within 100m of gas field roads, and also found that sage sparrows declined near pipelines. Kerley (1994) found that small patches had fewer shrub-nesting species than large patches, and the green-tailed towhee, an interior sagebrush species, was entirely absent from small patches. Remnant patches smaller than 1 ha will not support sagebrush shrub-nesting birds (Kerley 1994). What proportion of the project area will be within 100m of wells and roads when the full 1,250 wells are drilled? What impact will this loss of habitat function and

Hiawatha Scoping Comments by Category

Category	ID	Comment #		Comment Text
WI	73	64	Org. Biodiversity Conservation Alliance	In light of these scientific findings the BLM must take the following steps in order to satisfy NEPA's requirements of a credible scientific analysis and hard look: (1) map the locations of all roads, pipelines, and well sites for the project in relation to the sagebrush steppe habitat found within the project area; (2) buffer all surface-disturbing areas with a 100 m buffer and subtract this area from available sagebrush habitat; (3) analyze the size of remaining blocks of sagebrush habitat outside these buffer areas and subtract all blocks smaller than 1 hectare from the available total; (4) present this post-disturbance acreage of sagebrush habitat available to sagebrush-obligate passerines; and (5) then, and only then, analyze the population-levels effects of the Hiawatha project on sagebrush obligate birds and present these results in the
WI	73	65	Biodiversity Conservation Alliance	Big Game Winter Ranges and Calving Areas The EIS must analyze and implement strong mitigation standards for crucial winter ranges. Timing stipulations preventing construction activities commonly prescribed by BLM apply to crucial big game winter ranges between November 15 and April 30. These stipulations allow road and facility construction in the heart of crucial winter ranges, as long as it doesn't occur during the winter season, and furthermore would allow for waivers that would permit winter construction activities in crucial winter range. Wintering elk, deer, and bighorn sheep are sensitive to disturbances of all kinds. Both snowmobiles and cross-country skiers are known to cause wintering ungulates to flee (Richens and Lavigne 1978, Eckstein et al. 1979, Aune 1981, Freddy et al. 1986). Because flight response may be particularly costly to wintering ungulates (Parker et al. 1984), disturbance on winter ranges should be avoided at all costs. As a result, winter ranges
WI	73	66	Biodiversity Conservation Alliance	The BLM must analyze the effects on increased vehicle traffic as well as snow-plowing that occurs on existing roads as a result of the new and increased level of development associated with the 1,250 new wells. These wells will need to be checked periodically by personnel in vehicles, and the plowing of roads that might otherwise be allowed to drift over constitutes yet another vehicular intrusion into crucial winter ranges, apart from traffic and plowing on newly constructed roads or facilities. NEPA requires that the BLM take a "hard look" at impacts to wildlife, including the impacts of increased traffic and plowing on existing roads, and what this might mean to the survival and subsequent fecundity of elk and other ungulates utilizing crucial winter ranges. This analysis must be included in the DEIS.
WI	73	67	Biodiversity Conservation Alliance	Elk A number of studies have shown that elk avoid open roads (e.g., Grover and Thompson 1986, Rowland et al. 2000). Edge and Marcum (1991) found that elk use was reduced within 1.5 km of roads, except where there was topographic cover. (It is important to note that much of the Hiawatha project area has very little topographic variation, and thus provides little topographic cover). Gratson and Whitman (2000) found that hunter success was higher in roadless areas than in heavily roaded areas, and that closing roads increased hunter success rates. On the Black Hills, elk chose their day bedding sites to avoid tertiary roads and even horse trails (Cooper and Millsbaugh 1999). Cole et al. (1997) found that reducing open road densities led to smaller elk home ranges, fewer movements, and higher survival rates. Thus, it is important to keep road construction out of crucial ranges to avoid displacing elk to marginal habitats at crucial times of year.
WI	73	68	Biodiversity Conservation Alliance	Disturbances associated with oil and gas exploration and development can drive elk away from their preferred calving range. Powell (2003) also found that experimental disturbances in calving habitats led to reduced use of disturbed areas in the Jack Morrow Hills of the northwestern Red Desert, an area of comparable habitat with the Hiawatha project area. Powell speculated that in the absence of forest cover, elk would flee in order to put a topographic barrier between themselves and the source of the disturbance. With this in mind, the disturbed area surrounding a road or a gas well

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	<p>would effectively be the entire viewshed visible from that road or structure. According to Powell (2003, p. i),</p> <p>Disturbance treatments, simulating human activity at a gas/oil well, were conducted on calving ranges during the parturition period. Significantly fewer pellet groups were counted in disturbed areas of calving ranges compared to those areas not disturbed ($p < 0.05$). These results support maintaining disturbance-free area for calving elk.</p> <p>Powell concluded,</p> <p>These experiments support observations that suggest elk expend more energy when disturbed by humans and that even short-term, low-level disturbance can result in displacement of elk from traditional calving areas. Inferences about population level effects appear supported in the ungulate literature. Stipulations that restrict entry into calving areas and those stipulations aimed at reducing daily disturbance of elk appear warranted in the JMH study area.</p> <p>(Ibid., p. 43). We concur with the need to keep all calving areas in the project area disturbance-free.</p>
WI	73	69	Biodiversity Conservation Alliance	<p>But beyond the temporary effects of construction-related disturbance, the long-term disturbance associated with infrequent but steady traffic along existing roads and wells also drive elk away. According to Powell (2003, p. 23),</p> <p>Habitat use patterns of elk in the JMH [Jack Morrow Hills] are also strongly influenced by roads, and areas within 2 km of major roads are used significantly less than expected. This avoidance of roads reduces the amount of habitat effectively available to elk and makes the effective habitat lost much larger than the actual physical "footprint" of a road or structure.</p>
WI	73	70	Biodiversity Conservation Alliance	<p>Powell's results in the Jack Morrow Hills were corroborated by a subsequent study by Sawyer et al. (2005b). A number of additional studies have shown that elk avoid open roads (Grover and Thompson 1986, Rowland et al. 2000). Edge and Marcum (1991) found that elk use was reduced within 1.5 km of roads, except where there was topographic cover. (It is important to note that much of the Hiawatha project area has very little topographic variation, and thus provides little topographic cover). Gratson and Whitman (2000) found that hunter success was higher in roadless areas than in heavily roaded areas, and that closing roads increased hunter success rates. On the Black Hills, elk chose their day bedding sites to avoid tertiary roads and even horse trails (Cooper and Millspaugh 1999). Cole et al. (1997) found that reducing open road densities led to smaller elk home ranges, fewer movements, and higher survival rates. The maintenance of low road densities in important habitat areas is necessary to maintain healthy elk populations.</p>
WI	73	71	Biodiversity Conservation Alliance	<p>Several studies have shown that elk abandon calving and winter ranges in response to oilfield development. In mountainous habitats, the construction of a small number of oil or gas wells has caused elk to abandon substantial portions of their traditional winter range (Johnson and Wollrab 1987, Van Dyke and Klein 1996). Drilling in the mountains of western Wyoming displaced elk from their traditional calving range (Johnson and Lockman 1979, Johnson and Wollrab 1987). The lands in the Hiawatha project area are considerably more open, with less cover, and thus elk would be expected to be even more susceptible to disturbance in this area. Powell and Lindzey (2001) found that elk avoid lands within 1.5 kilometers of oilfield roads and well sites in sagebrush habitats of the Red Desert. In its Desolation Flats Draft EIS, the BLM correctly observes that elk are quite sensitive to human activity and may be displaced from construction areas by 0.75-2 miles. Migration corridors may in some cases be equally important to large mammals and are susceptible to impacts from oil and gas development (Sawyer et al., in press). Thus, winter range areas should be</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	withdrawn from the surface disturbances associated with oil and gas development.
WI	73	72	Biodiversity Conservation Alliance	<p>Mule Deer</p> <p>The ability of mule deer to forage effectively on winter ranges in a stress-free environment is the key to maintaining viable populations in this region. Winter mortality has claimed up to 80% of the adult mule deer population of southeastern Wyoming, and also depresses fawn production during the following spring (Strickland 1975). On winter ranges, mule deer are easily disturbed by snowmobile traffic and even nonmotorized visitors (Freddy et al. 1986). This can be a critical factor, because metabolic costs of locomotion in snow can be five times as great as normal locomotion costs for mule deer (Parker et al. 1984). As noted above, the Pinedale Mule Deer Study has shown that mule deer avoid oil and gas development and that development is incompatible with the maintenance of habitat effectiveness on mule deer crucial winter range. Thus, due to the sensitivity of mule deer to disturbance on winter ranges and the crucial nature of winter range performance to maintaining healthy deer populations, mule deer winter ranges must be with drawn from all road construction and development, particularly oil and gas development, which would increase the level of human disturbance on these winter ranges. The forthcoming EIS must make a full analysis of direct and cumulative impacts of the Hiawatha project's various alternatives on mule deer habitat and population dynamics.</p>
WI	73	73	Biodiversity Conservation Alliance	<p>Pronghorns</p> <p>Antelope of the Bitter Creek herd, inhabiting the project area, are 41% below WGFD herd targets. Desolation Flats EIS at 3-55. This indicates that this population is already stressed and should not be subjected to additional impacts to habitats, displacement from high-quality habitats, or additional physiological stress. Winter range is critically important to pronghorn populations, as its availability and quality is likely the strongest determinant of population dynamics. Barrett (1982) reported that during a severe winter in Alberta, overall pronghorn mortality was 48.5%, with fawns and adult males taking particularly heavy losses. This same study documented that pregnant female pronghorns resorbed their fetuses when conditions were poor. Deep winter snows also decrease the survival rate of fawns born the following spring (Cook 1984). Emergency supplemental feeding in ineffective in promoting pronghorn survival during severe winter weather (e.g., Julian 1973, Barrett 1982). Thus, it is critically important to be sure that the winter ranges are maintained in the best possible condition. This means keeping all surface disturbances off of pronghorn crucial winter range to avoid disturbance and/or displacement of antelope as a result of vehicle traffic, well noise, or human activity during the crucial winter season. The BLM has claimed in the past that seasonal stipulations for crucial winter range can protect antelope populations. Nothing less that a prohibition of surface disturbing activities on crucial winter ranges actually minimizes the probability of adverse impacts.</p>
WI	73	74	Biodiversity Conservation Alliance	<p>The forthcoming EIS must also examine the number of antelope that will be lost to roadkill as a result of implementing this project's varying alternatives.</p>
WI	73	75	Biodiversity Conservation Alliance	<p>There is no aspect of pronghorn behavioral ecology that would suggest that this species is more tolerant of industrial disturbance than other ungulates. Indeed, Berger et al. (2006) found that in the Jonah Field, at 40-acre spacing, there were no locations of radio-collared pronghorn inhabiting the general area found within the gas field out of over 50,000 satellite-collar observations. Given the copious literature that indicates that roads and human activity tend to drive other ungulate species away from high-quality habitats, it is the prudent and conservative position to assume that pronghorn behave no differently, until proven otherwise. In this climate of uncertainty, the BLM has the responsibility to protect pronghorns from impacts of unknown magnitude, rather than find out later that oil and gas development on crucial winter</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	73	76	Biodiversity Conservation Alliance	<p>Ferruginous Hawks and Other Raptors</p> <p>The ferruginous hawk has been experiencing declines across the continent for the past 30 years, although Wyoming is often viewed as a stronghold for the species. The ferruginous hawk has been petitioned for listing under the Endangered Species Act in the past, and more recently it has been identified by the Wyoming Game and Fish Department as a Species of Special Concern (Oakleaf et al. 1996). As a result, ferruginous hawks are of special concern and deserve the strongest protection available in the context of this project.</p>
WI	73	77	Biodiversity Conservation Alliance	<p>Oil and gas development and the associated human activity can have major impacts on raptor nest success. The primary impact to raptor populations is direct disturbance of raptors on the nest, leading to reductions or loss of viability for eggs or nestlings. Disturbance of nesting raptors may cause nest abandonment, damage to the eggs, subject eggs or nestlings to cooling, overheating, or dehydration leading to mortality, prevent young nestlings from receiving sufficient feedings to remain viable, and cause premature fledging (Parrish et al. 1994). Thus, the BLM should establish adequate nest buffers (a minimum of 1 mile in diameter for all species, with larger buffers for ferruginous hawks) around nest sites, preventing all construction of developments (such as wells and roads) that would lead to future disturbance of nesting raptors through focusing human activities in these areas. Seasonal restrictions are insufficient; a well or road constructed outside the nesting season is still likely to lead to nest abandonment or reductions in recruitment due to disturbance</p>
WI	73	78	Biodiversity Conservation Alliance	<p>Ferruginous hawks are among the most sensitive of all raptor species, and are prone to nest abandonment if disturbed (Parrish et al. 1994). Nest abandonment, egg mortality, parental neglect, and premature fledging are common results of disturbing ferruginous hawk nests (White and Thurow 1985). Smith and Murphy (1978) noted that increased human access is a primary threat to the viability of ferruginous hawk nest success. For their central Utah study, these researchers found that "in all instances of nesting failure where the cause could definitely be determined, humans were at fault" (p. 87). White and Thurow (1985) found that walking disturbance and vehicle use had the greatest effect on ferruginous hawk nest success, while vehicle use had the greatest flushing distance. Instead of becoming habituated, most hawks in this study increased their flushing distances with repeated disturbance (Ibid.). In addition, disturbed nests averaged one less offspring fledged per nest when compared to undisturbed control nests. Oakleaf et al. (1996) pointed out that the cumulative effects of oil and gas development may impact large areas of ferruginous hawk habitat. White and Thurow (1985) recommended quarter-mile nest buffers during years of prey abundance, but noted that sensitivity to disturbance increased when prey were scarce, and recommended that nest buffers be "considerably larger" during years of prey scarcity. Although Olendorff (1993) recommended buffer zones of only ½ mile for ferruginous hawk nests, he recommended much larger buffers during periods of prey scarcity. Because it is impractical to move roads away from nest sites when prey bases decline, the appropriate way to ensure the persistence of ferruginous hawks at traditional nesting sites is to use large buffers within which ground-disturbing activities are prohibited. Cerovski et al. (2001) reviewed the issue of appropriate nest buffers and recommended a 1-mile buffer, kept free from human disturbance. Thus, a minimum of 1-mile buffers prohibiting surface disturbance should apply to ferruginous hawk nest sites as well as all other raptor nest sites.</p>
WI	73	79	Biodiversity Conservation Alliance	<p>The Migratory Bird Treaty Act prevents the taking of any migratory birds, their parts, nests, or eggs except as permitted by regulations and does not require intent to be proven. 16 USC § 703. The Bald and Golden Eagle Protection Act prohibits knowingly taking, or taking with wanton disregard for the consequences of an action, any bald or golden eagle or their body parts, nests, or eggs, which includes collection, molestation, disturbance, or killing. Removal or destruction of raptor nests, or causing abandonment of a nest or death of nestlings or eggs could constitute a violation of one or both of the above statutes. According to USFWS policy, permits for nest manipulation, including removal or relocation may, under certain circumstances, be issued for inactive nests only; no permits are issued for an active nest of any migratory bird</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				species. Comments of Mike Long, USFWS, on the Lower Bush Creek CBM Exploratory Project, RSFO. The take of even inactive nests must therefore be done outside the nesting season and with the full involvement of the USFWS. Such measures must by law be incorporated into the Hiawatha project.
WI	73	80	Biodiversity Conservation Alliance	The overall landscape-scale effects of widespread industrialization threaten the viability of raptor populations through habitat loss and fragmentation. Nest buffers currently in force are unlikely to safeguard the viability of native raptors in the project area; a more conservative approach is needed in order to safeguard raptor viability throughout this region. White and Thurow (1985) stated: "We would prefer to see ecosystems kept intact (cf. Wagner 1977) rather than divided into isolated islands set aside for nesting raptors, because aspects of general land use other than restricted areas also affect the health of raptor populations" (p. 21). Oil and gas development results in habitat fragmentation and increased levels of human disturbance, impacting raptor species; nesting and foraging habitat loss can be substantial in the case of full-field development (Postovit and Postovit 1989). Even when surface-disturbing activities such as strip mining are located away from golden eagle nest sites, the destruction of important foraging habitats, such as prairie dog colonies, within the territory of nesting pairs can be a major problem for the viability of nesting golden eagles (Tyus and Lockhart 1979). Thus, not only should nest buffers be implemented, but the overall integrity of the landscape should be maintained (or improved in areas where it is currently degraded) in order to better provide for raptor viability.
WI	73	81	Biodiversity Conservation Alliance	<p>Burrowing Owls</p> <p>Nationwide, the burrowing owl is a species on the decline. As of 1997, over half of the agencies across North America tracking burrowing owl population trends reported declining populations, while none reported increasing populations (James and Espie 1997). Burrowing owl populations are highly susceptible to stochastic disturbances such as drought, and thus may decline more rapidly than would be predicted on the basis of demographic factors alone (Johnson 1997). In Wyoming, data suggest an overall population decline, with 17.5% reoccupancy of historic sites, but the spotty quality of historical data makes comparisons difficult (Korfanta et al. 2001).</p> <p>As part of the preparation of baseline information for the Draft EIS, the BLM should survey and map all active prairie dog colonies, and also survey active colonies on the ground for burrowing owl nesting activity. Studies show that burrowing owls prefer active over inactive colonies for nesting habitat. The BLM should also implement a 1-mile buffer of no surface disturbance around any active or known burrowing owl nest, and not to allow activities within that buffer after the owls have departed the nest, in order to maintain the viability of nest site locations from year to year and to prevent active nest sites from being impacted during the off-season.</p>
WI	73	82	Biodiversity Conservation Alliance	<p>Wolves</p> <p>The Draft EIS must include an analysis of the effect of the project on the dispersal or recovery of gray wolves in the southern Red Desert. According to USFWS reports (Status Report of Ed Bangs, May 30, 2003), "We received a reliable report of a gray uncollared wolf-like canid about 7 miles north of Baggs, WY indicating that a wolf [or tame wolf hybrid] may have dispersed within spitting distance of Colorado." This report is available at http://mountain-prairie.fws.gov/wolf/wk05302003.htm. The Rock Springs Uplift and Kinney Rim, near the project area, offer similar potential for wolf dispersal. In light of this report, the BLM must initiate a Section 7 consultation with the USFWS concerning the possible impacts of this project on dispersing wolves (and also the potential of eventual wolf colonization of the Hiawatha project area). The BLM must also present a credible impact analysis of the effects of full-field</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	73	83	Biodiversity Conservation Alliance	<p>Sage Grouse In order to halt the decline of sage grouse nationwide and allow the recover of this species, a blueprint for Sage Grouse Recovery has been developed. See Attachment __. This blueprint is adapted from the expert recommendations of Connelly et al (2000) and contains the minimum measures needed to reverse the decline of sage grouse throughout their range. This blueprint should be implemented through the Hiawatha EIS, so that all permitted activities can become compatible with the maintenance and recovery of sage grouse populations.</p> <p>Breeding and Nesting Habitats For migratory sage grouse populations, protect all breeding and nesting habitat within 18 km of current and recently used lek sites. If populations are known to be nonmigratory, protect all breeding habitat within 5 km (3 miles) of lek sites where breeding habitat is patchy, or within 3.2 km (2 miles) where breeding habitat is continuous across the landscape. Specifically, the following protections should be implemented in breeding and nesting habitats:</p> <ul style="list-style-type: none"> Ø No siting or construction of energy-related or other facilities within 3 miles of active or inactive sage grouse lek sites. Directional drilling can be used to tap resources beneath sage grouse breeding and nesting habitats. Ø Do not build overhead powerlines, condensate tanks or other tall structures within 3 miles of known sage grouse leks; buried powerlines, telephone lines, and pipelines are acceptable within this radius. Ø Do not prescribe fire or vegetation treatments in breeding habitats Ø Manage livestock grazing toward grass and forb heights at least 18 cm and cover densities at least 15% in breeding habitats. <p>Wintering Habitats Areas with canopy cover of 10-30% and heights of at least 25 cm may be important sagebrush wintering habitats. Sagebrush elimination treatments must not be allowed in these habitats, and allow no prescribed burns > 50 hectares.</p> <p>General Standards The following general standards should be adopted into land-use plans by federal and state agencies:</p> <ul style="list-style-type: none"> Ø Do not allow fence construction within 1 km of seasonal habitats Ø In cases where sagebrush habitat loss or degradation exceeds 40% of original levels, do not burn or treat remaining potential breeding or wintering habitats. In these areas, restore disturbed habitats to healthy sagebrush steppe. Ø Never treat >20% of the potential habitat in a given 30-year period for Wyoming big sagebrush or a given 20-year period for mountain big sagebrush. Ø Do not implement sagebrush removal treatments within 300m of riparian zones, wet meadows, and springs. Ø Do not spray insecticides in sage grouse breeding habitats or within 300m of springs, seeps, or wet meadows. Ø Protect springs and wet meadow habitats from livestock water developments. Ø Modify developed springs to restore free-flowing water and wet meadow habitats. <p>Monitoring In order to ensure that ongoing activities can be modified when they are causing significant impacts to sage grouse populations, thorough monitoring is needed to track population growth and decline. Use lek censuses annually to derive an index of sage grouse population trends, and use brood counts as an index of recruitment trends.</p> <p>Guidelines Minimize the amount of additional habitat fragmentation in potential sage grouse habitat, and aggressively pursue the rehabilitation of badly fragmented habitats.</p> <p>Reduce livestock stocking rates during drought.</p> <p>Sagebrush treatments > 50 hectares in area should be avoided. For reclamation, include sagebrush, native forbs, and native grasses must be used in seeding mixes.</p> <p>A study by Matt Holloran (2005) and the WGFD has revealed that lek attendance for sage grouse males in the Pinedale</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
		Org.	<p>Anticline Field declined in areas of oil and gas activity. And while females showed strong fidelity to nesting areas regardless of oil and gas activity, the physical condition and survival of females in developed areas was significantly lower than in undeveloped areas. Presumably, these two factors would account, at least in part, for the declines of sage grouse</p> <p>seen in the Pinedale Anticline field in this study. The BLM must obtain a copy of this study and incorporate its findings into the agency's impacts analysis on sage grouse for the Hiawatha project.</p> <p>Wyoming sage grouse populations are some of the largest left in the nation and are relatively stable (showing a 17% decline from 1985-1994); nonetheless, sage grouse populations have experienced major declines rangewide in recent decades (Connelly and Braun 1997). WGFD (2000) reported that since 1952, there has been a 20% decline in the overall Wyoming sage grouse population, with some fragmented populations declining more than 80%; Christiansen (2000) reported a 40% statewide decline over the last 20 years. These declines are attributable at least in part to habitat loss due to mining and energy development and associated roads, and habitat fragmentation due to roads and well fields (Braun 1998). We urge the BLM to comply with all of Dr. Braun's expert recommendations in his attached Blueprint regarding sage grouse in the Draft EIS. It is crucially important that this project include stronger mitigation measures to provide for the maintenance and recovery of sage grouse populations, because this bird is headed for the Endangered Species List if population losses continue.</p> <p>Connelly et al. (2000) provide a review of the many short- and long-term effects of energy development on sage grouse. Aldridge (1998) noted that oil and gas development has contributed to the serious decline of Canadian sage grouse populations, stating, "the removal of vegetation for well sites, access roads, and associated facilities can fragment and reduce the availability of suitable habitat. Furthermore, human and mechanical disturbance at wells may disrupt breeding activities, and traffic on access roads could cause some fatalities of birds.... Even if sites are reclaimed at a later date, birds may fail to return to previously used habitats."</p> <p>Currently, only 7 of 31 historic lek complexes remain active in Canada (Braun et al., in press). For this Canadian population, these researchers have stated, "The future plans for oil and gas developments within the range of sage-grouse are unknown, but expansion is expected. The cumulative impacts of further activities could result in reduction of the Alberta sage-grouse population to non-viable levels."</p> <p>We are concerned that sage grouse in the Washakie Basin are on the decline, and that both the number of leks and the overall populations are heading downward as a result of oil and gas development. The Draft EIS must provide a comprehensive analysis of lek numbers, lek counts, brood surveys, and other metrics for the Red Desert and Washakie Basin as a whole and for the Hiawatha project area in particular, over the past 20 years. This baseline data is a crucially important prerequisite to a thorough impacts analysis.</p> <p>Oil and gas development poses perhaps the greatest threat to sage grouse viability in the region. In a study near Pinedale, sage grouse from disturbed leks where gas development occurred within 3 km of the lek site showed lower nesting rates (and hence lower reproduction), traveled farther to nest, and selected greater shrub cover than grouse from undisturbed leks (Lyon 2000). According to Lyon (2000), impacts of oil and gas development to sage grouse include (1) direct habitat loss from new construction, (2) increased human activity and pumping noise causing displacement, (3) increased legal and illegal harvest, (4) direct mortality associated with reserve pits, and (5) lowered water tables resulting in herbaceous vegetation loss. All of these impacts must be thoroughly evaluated in the FEIS. Pump noise from oil and gas development may reduce the effective range of grouse vocalizations (Klott 1987). Thus, lek buffers are needed to ensure that booming sage grouse are audible to conspecifics during the breeding season. Connelly et al. (2000) recommended, "Energy-related facilities should be located >3.2 km from active leks" (p. 278). But Clait Braun (pers. comm.), the world's most eminent expert on sage grouse, recommended even larger NSO buffers of 3 miles from lek sites, based on the uncertainty of protecting sage grouse nesting habitat with smaller buffers.</p> <p>The area within 2 or 3 miles of a sage grouse lek is crucial to both the breeding activities and nesting success of local sage grouse populations. Autenreith (1985) considered the lek site "the hub from which nesting occurs" (p. 52). Grouse</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Comment Text
		Org.	<p>exhibit strong fidelity to individual lek sites from year to year (Dunn and Braun 1986). During the spring period, male habitat use is concentrated within 2 km of lek sites (Benson et al. 1991). In a Montana study, Wallestad and Schladweiler (1974) found that no male sage grouse traveled farther than 1.8 km from a lek during the breeding season. Hulet et al. (1986) found that 10 of 13 hens nested within 1.9 miles of the lek site during the first year of their southern Idaho study, with an average distance of 1.7 miles from the lek site; 100% of hens nested within 2 miles of the lek site during the second year of this study, with an average distance from lek of 0.5 mile. In Montana, Wallestad and Pyrah (1974) found that 73% of nests were built within 2 miles of the lek, but only one nest occurred within 0.5 mile of the lek site. Because leks sites are used traditionally year after year and represent selection for optimal breeding and nesting habitat, it is crucially important to protect the area surrounding lek sites from impacts. Thus, the prohibition of surface disturbance within 2 miles (minimally) or 3 miles (optimally) of a sage grouse lek is the absolute minimum starting point for sage grouse conservation.</p> <p>Under past BLM oil and gas projects, only areas within ¼ mile of sage grouse leks would be withdrawn from surface disturbance, and mere timing stipulations would prevent construction activities within 2 miles of lek sites between March 1 and June 30. These measures are clearly insufficient, because they would allow construction of roads and well pads in the area between ¼ and 2 miles of the lek site, creating major impacts to sage grouse during the crucial nesting season. Despite the provision that construction activities would not be allowed during the breeding and nesting period, these impacts, along with the vehicle traffic that will inherently be associated with them, will be present during the breeding and nesting periods in subsequent years. Lyon (2000) pointed out that quarter-mile lek buffers used in the Pinedale area, are insufficient to maintain the viability of grouse populations. These findings are consistent with the work of Holloran (2005), who found that oil and gas development led to decreases in lek attendance and overall population declines in areas where development is occurring on the Pinedale Anticline, where seasonal stipulations limiting construction and drilling have been in place for years. Connelly et al. (2000) recommended that sage grouse habitat should be protected within 3.2 km of lek sites under ideal habitat conditions, within 5 km when habitat conditions are not ideal, and within 18 km where sage grouse populations are migratory. Furthermore, these same researchers stated that in areas where 40% or more of the original breeding habitat has been lost, all remaining habitat should be protected. Considering that in the Bitter Creek Upland Game Bird Management Area, only 6 leks are active while 38 leks previously known to be active no longer have sage grouse, even given the possibility that some leks were abandoned due to movement to new sites, the original breeding habitat that has been lost clearly exceeds 60% in this area.</p> <p>Even the minimal measure of prohibiting year-round surface disturbance within 2 miles of lek sites may not be sufficient to protect nesting habitats in all cases. For example, in Bates Hole, Wyoming, Holloran (1999) found that average nesting distance from lek site was 3.25 km for adults and 5.27 km for yearlings. Wakkinen et al. (1992) also cautioned that leks were poor predictors of sage grouse nest sites; although 92% of sage grouse nested within 3.2 km of a lek in this study, sage grouse did not necessarily nest near the same lek where breeding took place. A detailed study of nesting habitat use is therefore needed to identify all-important nesting areas in the Draft EIS, and NSO protective measures must be extended to all identified nesting areas.</p> <p>In addition to breeding and nesting habitats, early- and late-brood-rearing habitats must also be identified and protected. The Draft EIS must map and identify important brood-rearing habitat, and provide protective measures for such habitats. Sage grouse may move some distance from nesting sites for early and late brood rearing. In western Wyoming, Lyon (2000) found that sage grouse moved an average of 1.1 km from the nest site for early brood-rearing, and late brood-rearing habitats averaged 4.8 km distant from the early brood-rearing areas. In Bates Hole, Holloran (1999) found that early brood rearing habitats are typified by decreased sagebrush cover and height and increased forb abundance, and movement to riparian sites occurred as uplands became dessicated. This pattern of movement and habitat selection is echoed in the findings of Oakleaf (1971). In western Wyoming, wet meadows, springs, seeps, and other green areas within sagebrush steppe were important for early brood-rearing, while late brood rearing focused on irrigated hay meadows, wet meadows, and drainage bottoms which remained green when early brood rearing habitats were withering (Lyon 2000). This researcher found that most recruitment loss occurred during the early brood rearing stage, and that this may be a limiting factor in sage grouse populations (Ibid.). In Nevada, Oakleaf (1971) found that meadows with succulent forbs, while occupying only 2.3% of grouse home ranges during the brood rearing period, were disproportionately important as brood-rearing habitat. Brood-rearing habitats should thus be identified and managed to maximize sage grouse recruitment success through protective measures laid out in the Draft EIS.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				<p>Beck (1977) cautioned that protection of lek sites only is insufficient to maintain sage grouse winter habitats. And Connelly et al. (1988) later cautioned, "Protection of sagebrush habitats within a 3.2 km radius of leks may not be sufficient to ensure the protection of year-long habitat requirements" (p. 116). Non-migratory sage grouse winter on their nesting and brood-rearing habitats, while migratory populations may travel some distance to winter on traditional wintering areas. For non-migratory populations, nesting habitat and wintering habitat are one and the same (e.g., Wallestad and Pyrah 1974). In a western Wyoming study, however, sage grouse were migratory and traveled at least 35 km to separate wintering grounds (Berry and Eng 1985). In Colorado's North Park, Beck (1977) found that grouse migrated 5-20 km away from breeding areas during winter. In a southeastern Idaho study, Connelly et al. (1988) found</p>
WI	73	84	Biodiversity Conservation Alliance	<p>that some adult sage grouse moved more than 60 km to winter range, and some juveniles moved more than 80km, despite the availability of suitable wintering habitat nearby. Additional measures are needed to protect sage grouse</p> <p>Wyoming Pocket Gophers The Wyoming pocket gopher is likely to be found in the Hiawatha project area. Indeed, this species is found exclusively in the Red Desert, and nowhere else, with the largest population at Bridger Pass, east of the project area. The BLM must survey the project area for this creature and map its habitats against proposed development. Data must be gathered and presented regarding expected effects of the project on mortality, recruitment, or behavior of this species that suggest that an industrial development on this massive scale would have no negative effect on Wyoming pocket gopher populations.</p>
WI	73	85	Biodiversity Conservation Alliance	<p>Mountain Plovers Although the mountain plover has been de-listed as Threatened under the Endangered Species Act, its rangewide recovery has not been achieved. Wyoming (along with Colorado and Montana) is one of three states that encompass the majority of plover's breeding population (USFWS 1999); approximately 1,500 birds are estimated to occur in Wyoming (Long 2001). We incorporate by reference the Scoping Comments of Dr. Stephen Dinsmore, a well-known mountain plover expert, into our comments by reference. See Attachment ___. We recommend the BLM comply with all of Dr. Dinsmore's expert recommendations concerning plovers in the forthcoming Draft EIS.</p> <p>Oil and gas development in nesting concentration areas is a direct threat to mountain plover population viability. The U.S. Fish and Wildlife Service found that the Seminoe Road Coalbed Methane project "is likely to adversely affect the proposed mountain plover," stating that wellfields are likely to become an "ecological trap," attracting feeding plovers to roadways where they become susceptible to vehicle-related mortality, or alternately increased vehicle traffic could drive plovers away from preferred nesting areas (Long 2001). The USFWS (1999) added that vehicle traffic on roads could lead to stress and chick abandonment. These officials noted that any human disturbance that significantly modifies adult behavior could cause death to chicks, which can die in as little as 15 minutes due to exposure to sun at temperatures greater than 81° F. Long (2001) noted that construction equipment and permanent structures inherent to oilfield development constitute a radical increase in raptor perches that could result in increased predation pressure. In addition to these problems, wellfield development can lead to increased invasion rates of non-native weed species, which can have serious impacts on plover nesting habitat by decreasing the availability of bare ground (Good et al. 2001). It is instructive to note that the last remaining population of mountain plovers in Utah, which occurred in the northeastern part of the state not so far from the Hiawatha project area and which was intensively developed for oil and gas, has now gone extinct.</p> <p>Plover surveys should be conducted as part of the gathering of baseline information for the Draft EIS, and these data should be presented in the DEIS. The amount of oil and gas development on these particular areas must be quantified, and the subsequent impacts should be measured. It is important to note that in northeastern Utah, a plover study initially recorded plover activity in close proximity to oil and gas development. As this plover population has subsequently crashed, this occurrence cannot be construed by BLM to mean that plovers and oil and gas development can co-exist in the same area.</p>
WI	73	86	Biodiversity	Prairie Dogs

Hiawatha Scoping Comments by Category

Category	ID	Comment #		Comment Text
			Conservation Alliance	<p>The white-tailed prairie dog is a keystone species in the project area, supporting or potentially supporting many BLM Sensitive Species, including burrowing owl, swift fox, ferruginous hawk, golden eagle, and black-footed ferret. The Hiawatha prairie dog subcomplex (part of the Little Snake complex), a past candidate for black-footed ferret reintroduction, occurs at least partially within the project area. Also, The Kinney complex adjoins the Little Snake complex on the Wyoming side of the line; BLM should perform field inventories of these complexes as part of the EIS process to see if they are really one big complex on both sides of the border. Its conservation priority should eclipse the priority for oil and gas development under the Hiawatha project. We are concerned that the Hiawatha project could impact the success and viability of a potential Little Snake ferret population in Colorado, and these impacts must be studied in the Draft EIS. The Little Snake Field Office has been considering a ferret transplant to this area, and it may happen as early as next year. The</p> <p>prairie dog complex (Little Snake/Kinney supercomplex) that would be expected to be colonized by such a transplant should be protected from surface disturbance. The forthcoming EIS must provide baseline data on the locations and past and present population trends of prairie dogs in the project area. It must plot the exact locations of all roads, wells, pipelines, and powerlines in relation to prairie dog colonies, and undertake a detailed direct and cumulative effects analysis on prairie dog populations within the project area and in surrounding lands. The BLM must clearly prohibit disturbance in prairie dog colonies, or at least give some sort of framework explaining under what circumstances disturbance would be allowed. In addition, the BLM should formally recognize in the Draft EIS that available oil and gas technologies, including directional drilling, allow such protection of prairie dog colonies to be feasible in all cases, without exception. Disturbance of prairie dog colonies must not be allowed at the whim of the Operators.</p> <p>Discretionary guidelines will in fact result in colony disturbance. This lax protection is problematic for several reasons. The white-tailed prairie dog is a BLM Sensitive Species in Wyoming, and is trending toward listing under the ESA. It also has already been petitioned for Endangered Species Act (ESA) listing. Finally, it is closely associated with other BLM Sensitive, ESA listed, and ESA Proposed species.</p>
WI	73	87	Biodiversity Conservation Alliance	<p>A. The BLM is obligated to monitor and conserve Sensitive Species.</p> <p>The BLM Manual explains that Sensitive species must be managed at least as protectively as Candidates for ESA listing: "The protection provided by the policy for candidate species shall be used as the minimum level of protection for BLM sensitive species" (BLM Manual § 6840.06(E)). These protections are as follows:</p> <p>Consistent with existing laws, the BLM shall implement management plans that conserve candidate species and their habitats and shall ensure that actions authorized, funded, or carried out by BLM do not contribute to the need for the species to become listed. Specifically, BLM shall:</p> <ol style="list-style-type: none"> (1) In coordination with FWS and/or NMFS [National Marine Fisheries Service] determine, to the extent practicable, the distribution, population dynamics, current threats, abundance, and habitat needs for candidate species occurring on lands administered by the BLM; evaluate the significance of lands administered by the BLM or actions undertaken by the BLM in maintaining and restoring those species. (2) For a candidate species where lands administered by the BLM or BLM authorized actions have a significant effect on their status, manage the habitat to conserve the species by: <ol style="list-style-type: none"> a. Ensuring candidate species are appropriately considered in land use plans (BLM 1610 Planning Manual and Handbook, Appendix C). b. Developing, cooperating with, and implementing rangewide and or site-specific management plans, conservation strategies, and assessments for candidate species that include specific habitat and population management objectives designed for conservation, as well as management strategies necessary to meet those objectives. c. Ensuring that BLM activities affecting the habitat of candidate species are carried out in a manner that is consistent with the objectives for managing those species. d. Monitoring populations and habitats of candidate species to determine whether management objectives are being met.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				(3) Request technical assistance from the FWS and/or NMFS, and other qualified sources, on any planned action that may contribute to the need to list a candidate species as threatened or endangered. (BLM Manual § 6840.06(C)) The BLM must present evidence that habitat destruction and fragmentation coupled with increased mortality in these complexes will not contribute to the need to list the white-tailed prairie dog under the ESA. It has not compiled information on population dynamics, current threats, or habitat needs for white-tailed prairie dogs. It has not evaluated the significance of these two complexes or how the Proposed Action would contribute to maintaining or restoring the white-tailed prairie dog. The BLM has not yet developed habitat or population management objectives for white-tailed prairie dogs at any scale – not for this project, not for Wyoming, and not rangewide. Therefore, the BLM cannot ensure that approving this project is consistent with white-tailed prairie dog management objectives. The BLM should also coordinate with the multi-state prairie dog conservation team to determine how the development of these large complexes may affect the states' attempts to conserve the white-tailed prairie dog and avert ESA listing.
WI	73	88	Biodiversity Conservation Alliance	B. The BLM must not contribute to the need to list species under the ESA. As discussed in the previous section, the BLM Manual prohibits the agency from authorizing actions that contribute to the need to list species under the ESA. Center for Native Ecosystems, Biodiversity Conservation Alliance, and others petitioned the Fish and Wildlife Service to list the white-tailed prairie dog under the ESA in July 2002 (CNE et al. 2002). In February of 2003 we filed suit against the Fish and Wildlife Service for its failure to issue a preliminary finding within 90 days of receipt of the petition. Our petition and complaint make clear that ESA listing is warranted for this species. Now the BLM proposes to permit the conversion of a substantial white-tailed prairie dog complex to oil and gas development. Our white-tailed prairie dog research has revealed only 20 complexes of at least this size throughout the species' nationwide range. While it is possible that additional large complexes will be found, it is just as possible that many of these 20 complexes have experienced substantial declines since they were last inventoried, and the large complex within the Hiawatha Project Area may be one of only a handful of complexes left that approach or exceed 10,000 acres. Until white-tailed prairie dog status rangewide is better understood, the BLM and other federal agencies should take a precautionary approach in managing large complexes. Center for Native Ecosystems, Biodiversity Conservation Alliance, and others have compiled a report on recommended white-tailed prairie dog management practices which may be useful to the BLM (CNE et al. 2003b).
WI	73	89	Biodiversity Conservation Alliance	C. Other ESA listed and BLM Sensitive species may be affected by the failure to conserve white-tailed prairie dogs. The BLM must analyze the potential impacts to black-footed ferrets in the context of how the project could affect any wild ferrets that remain in the area as well as the impacts of reducing the favorability of this area as a potential ferret reintroduction site. The BLM must also consider the consequences that prairie dog habitat loss could have on BLM Sensitive species that rely on prairie dogs for their viability. The BLM must also fully evaluate the significance of lands administered by the BLM or actions undertaken by BLM in conserving, maintaining, and restoring these species, and the BLM must determine the occurrence, distribution, abundance, condition, population dynamics, habitat conditions and needs, and current threats of and to these species. The BLM is also required to develop and implement programs, management plans, conservation strategies, and/or assessments for the conservation of these species and their habitats, including specific management objectives and strategies; to monitor populations and habitats to determine whether management objectives are being met; and to monitor and evaluate ongoing management activities to ensure conservation objectives, recovery needs, and recovery objectives are being met.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	73	90	Biodiversity Conservation Alliance	<p>II. The DEIS must consider how this project could affect black-footed ferret recovery.</p> <p>The Fish and Wildlife Service has emphasized the important role that prairie dog complexes of greater than 1000 acres will play in black-footed ferret recovery: "Towns or complexes of 1,000 or more acres should be given special consideration for their importance to the overall recovery and survival of the black-footed ferret as potential reintroduction areas. The Service would like to minimize disturbances of these areas until black-footed ferret reintroduction sites have been selected" (U.S. Fish and Wildlife Service 1989, p. 5). The Service has also made clear that they should be contacted before projects are conducted on prairie dog complexes of this size: "Before any federally funded or permitted activities are conducted on black-tailed or white-tailed prairie dog towns or complexes greater than 1,000 acres, the appropriate Service office should be contacted to determine the status of the area for future black-footed ferret reintroductions" (U.S. Fish and Wildlife Service 1989, p. 4). The Fish and Wildlife Service must be apprised and must determine whether this area is essential to black-footed ferret recovery. Until this takes place, the BLM cannot conclude that the Proposed Action is not likely to affect black-footed ferret recovery.</p>
WI	73	91	Biodiversity Conservation Alliance	<p>III. White-tailed prairie dogs – Conclusion</p> <p>Conserving any white-tailed prairie dog complex of 5,000 acres or more should be a top priority for the BLM – the main agency that manages habitat for this species. The Hiawatha project area includes important prairie dog colonies, including parts of the Hiawatha Complex. Clearly, approving this project based on the limited analysis and purely discretionary mitigation measures in the DEIS would be arbitrary and capricious and would support the position that only ESA listing will be adequate to stem white-tailed prairie dog declines and promote recovery, since the state and federal agencies continue to fail to manage this species proactively.</p>
WI	73	92	Biodiversity Conservation Alliance	<p>Endangered and Sensitive Fish Species</p> <p>The BLM must provide a complete analysis of the effects of the Hiawatha project on Endangered and BLM Sensitive fishes in the Colorado River watershed downstream of the project area (the bonytail, razorback sucker, humpback chub, and Colorado pikeminnow), which must be thorough. All of these fish populations teeter on the edge of extinction or extirpation, and any added impacts to these populations could be the straw that breaks the camel's back.</p>
WI	73	94	Biodiversity Conservation Alliance	<p>Soil productivity is likely to be a primary adverse impact of these project effects. Erosion can impede successful revegetation, result in a loss of site productivity, and impair water quality if eroded sediment is transported to surface water bodies. In addition, some soils and geologic units may have relatively high levels of selenium. Erosion of selenium-laden sediment could increase selenium loading of streams. How will this increase in potentially toxic sediment impact the three species of BLM Sensitive fishes and the four species of Endangered fishes downstream in the</p>
WI	73	95	Biodiversity Conservation Alliance	<p>The magnitude of the impacts to surface water resources would depend on the proximity of the disturbance to the surface channel, slope aspect and gradient, degree and area of soil disturbance, soil character duration of time within which construction activities occur, and the timely implementation of mitigation measures. Thus, the full presentation of the</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				locations of wells, road, and wells must be disclosed and studied in terms of their impacts.
WI	73	96	Biodiversity Conservation Alliance	What are the effects of seepage of toxic compounds, whether produced water or other drilling wastes, on fishes in \ the Little Snake and Yampa systems? This question must be answered in the Draft EIS.
WI	73	97	Biodiversity Conservation Alliance	The cumulative effects analysis on Endangered and Sensitive fish species must consider the Atlantic Rim Coalbed Methane Project. This project is not only the largest reasonably foreseeable series of impacts to the Muddy Creek watershed and also Little Snake and Yampa systems downstream, but also the nature of this proposal, with 2,000 CBM and conventional gas wells with the salt-laden erosion flowing into streams from roads and wellpads, constituting a threat that has the potential to wipe out all native fishes in the Muddy Creek, lower Little Snake, and lower Yampa reaches,
WI	74	14	United States Environmental Protection Agency, Region 8	The effects of project activities on area ecology, including vegetation, wildlife and their habitats, as well as recreational hunting and fishing activities, should be disclosed and evaluated in the NEPA documentation. Proposed mitigation that will be taken to minimize or eliminate adverse impacts should be presented, along with detailed mitigation steps that will be taken to minimize or eliminate adverse impacts. EPA recommends close, and early, coordination with the U.S. Fish and Wildlife Service on these and all other wildlife related issues. Concerning the Greater Sage-grouse, please detail the project's adherence to BLM's "National Sage-Grouse Habitat Conservation Strategy" – November 2004, and the State's
WI	74	17	United States Environmental Protection Agency, Region 8	<p>Fragmentation of Wildlife</p> <p>As is generally the case with development projects that affect large parcels of land, some fragmentation of wildlife habitat will occur. The actual extent or effect of the fragmentation can be difficult to ascertain. Studies have indicated that due to infrastructure effect zones (e.g., a particular animal may not come closer than a quarter mile of a road), transecting of migratory routes, elimination of sufficiently large habitat core areas, and other effects, the actual effect of disturbing as little as 5 percent of an area can be to effectively eliminate 20%, 40% or more of the area to some wildlife. We recommend the consideration of the following suggestions to address some of these concerns in the project area:</p> <ul style="list-style-type: none"> · Use of Fragmentation Models: Fragmentation models are available which could be utilized to evaluate potential fragmentation of habitat effects, or at least scenarios, for development following leasing. Such evaluation could be critical to decisions on well, facility, and road placement and may influence which areas may need No Surface Occupancy stipulations. · Development of GIS Planning Tools: The EIS should explore a number of mitigation measures for consideration in making decisions prior to leasing. These typically include surface disturbance limits, modification of drilling and construction practices, buffer zones of avoidance for wildlife and water bodies, and even a decision of no leasing at all. As another step, these, and other project specific measures, can be coupled with surrounding vicinity data representing wildlife habitat and migration routes, locations of wetlands and sensitive soils, protected areas, areas sensitive to visual impairment, recreation areas, proposed road and facility locations, effectiveness of BMP types, and other metrics important to specific cases, and represented as GIS layers. Fragmentation layers (i.e., related to the fragmentation models discussed above) could also be included. This data, provided as GIS layers, could be incorporated in an enhanced GIS data analysis program (a "GIS Tool") able to process the data to generate maps indicating ideal locations (or areas of less impact) for roads, wells, facilities, etc. The Tool could potentially couple the layer data with weighting values for the relative importance of the different metrics, and allow the input of data specific to the areas being evaluated (e.g., different sizes of avoidance buffer zones or drill pad sizes). As the project matures, information on gas production and location, and technological advancements in development/production, may also represent additional layers for the Tool, potentially enabling a productivity component

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				to assist operators. - Road Planning and Reclamation: A combination of reclamation of existing roads at a two-to-one ratio for new road construction, reuse of appropriate existing roads, and discouraging small and short road loops, may lessen habitat fragmentation effects. The above suggestions can be implemented prior to the first phase of development, then updated and used on a
WI Management: A Sweetwater County Comprehensive Plan County's natural environment and resources which include, among others, wildlife. To meet this goal, Questar should the appropriate agency to ensure that oil and gas field development occurs in a manner that	75	14	Sweetwater County Planning Department	continuous basis for each of the development stages. This may maximize environmental protection, as well as the encourages the identification and the protection of productivity of the development and production activities within environmental constraints. In any case, EPA recommends close coordination with the U.S. Fish and Wildlife Service on these and all other wildlife related issues. sustains Sweetwater County's wildlife resources. Some wildlife issues that may need further attention include coordination of increased traffic on WY Hwy. 430 with wildlife migration corridors; coordination of drilling with critical wildlife habitat and proper reclamation to preserve the range carrying
				Wildlife the be encouraged to work with
WI	78	2	Individual	The Hiawatha Complex prairie dog area (in the project area) is of concern to me also. This prairie dog complex was identified as suitable for the reintroduction of the endangered black-footed ferret in 1995, and needs to be protected. The BLM must protect this prairie dog complex so that the success of future ferret reintroduction efforts is maximized.
WI	79	1	Environmental Protection Foundation	First, a significant portion of the project will take place in prime winter range habitat for mule deer, elk and antelope and in sage grouse habitat. While some efforts will hopefully be made to protect the critical habitat for these and other species, we are not convinced that all of the possibilities are being adequately considered to protect or enhance the habitat during development of the project or after the project is completed and the resources depleted.
WI	79	3	Environmental Protection Foundation	Produced water facilities are responsible for the fatality of estimated millions of migratory waterfowl and local species, even Threatened or Endangered species. Small ponds may have some limited success with efforts such as flagging or net covering, but even these efforts often fail and large ponds are very difficult to protect by such means. As the need for effective mitigation grows exponentially with the scope of produced water facilities, sound judgment about potential effects requires careful delineation of such facilities and informed choice of mitigations.
WI	79	6	Environmental Protection Foundation	There also appears to be little attention paid to what happens to the wildlife during development and during the restoration process. What is provided to substitute for the missing or disrupted food base? Where do deer, elk, antelope and sage grouse go to find adequate forage? The impacts appear to go beyond the disturbed area. During development, noise, equipment and human presence will further limit the available forage. Absent reasonable assessment of preliminary effects, sound judgments about long-term effects are not possible or about efficacy of proposed mediations.
WI	80	12	Wyoming Outdoor Council	We request that the attached studies regarding the impact of oil and gas development on mule deer be fully considered in the EIS and used as a basis for developing stipulations and/or conditions of approval that will be applied to this project. Exhibits 7 and 8. These studies show that oil and gas development has very severe impacts on mule deer, and thus far

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
			Org.	<p>more is needed to protect this species than the standard prohibition on wintertime drilling. Consequently, BLM must analyze in the EIS and adopt in the ROD additional provisions adequate to protect this species (See discussion of Wyoming Game and Fish Department Policy below and Part III of these comments). We recognize that these studies may not define and control for every last possible variable or outstanding question regarding drilling impacts on big game and mule deer, but BLM should not let the fact that there is still some uncertainty divert it from recognizing the undeniable bottom-line fact demonstrated by these studies: where oil and gas development is occurring with only the standard prohibition on wintertime drilling in place there are far fewer deer in the area than there were previously and with respect</p> <p>to a nearby control area where drilling is not occurring. If BLM lets the fact there are still some questions dominate its consideration and framing of this issue it will be engaging in the cigarette industry approach to science – unless you can prove this molecule of nicotine from this cigarette caused this particular cancer to start growing in this person, you have not proven that cigarette smoking has caused harm. That is not science, it is using science as a weapon to prevent informed decision-making. That kind of proof will almost never exist, and BLM should not insist on it here; that will only prevent and stifle informed decision-making based on the best information that is available, which is quite good.</p>
WI	80	13	Wyoming Outdoor Council	<p>We also ask that BLM consider the enclosed report on sage grouse, and protections that are needed for sage grouse. Exhibit 9. Dr. Braun is recognized as one of the premier experts on sage grouse, and much of his research has been conducted in this area, including on Cold Springs Mountain. Thus, his recommendations should be carefully considered by BLM and adopted as additional stipulations and/or conditions of approval to ensure that sage grouse in the project</p>
WI	80	14	Wyoming Outdoor Council	<p>They Wyoming Game and Fish Department (WGFD) developed its Minimum Recommendations for Development of Oil and Gas Resources Within Crucial and Important Wildlife Habitats on BLM Lands,” and we ask that it be considered in the EIS and implemented pursuant to the ROD. http://gf.state.wy.us/downloads/pdf/og.pdf. BLM of course has a responsibility to consider state policies and guidance, especially on an issue where the state has special expertise, which is certainly the case with wildlife, and we believe it has a responsibility to abide by this guidance in this case. Adoption of these provisions as stipulations and/or conditions of approval for oil and gas development in the Hiawatha Project area would help ensure that many of the issues raised in the Sawyer and Braun studies mentioned in the prior two bullet points are addressed. If Colorado does not have similar guidelines, we request that the Wyoming guidelines be adopted throughout the project area, and that just as for air, the most protective policies of either state be adopted throughout the project area. In addition, it is worth noting that the Minimum Recommendations report contains an extensive annotated bibliography that is relevant to evaluating the impacts of oil and gas development, and we request that this literature be considered in developing stipulations and /or conditions of approval – WGFD has already done a lot of the heavy lifting by providing these annotated references.</p>
WI	80	15	Wyoming Outdoor Council	<p>We are not sure whether elk occur in the project area or not, but we do know there is a herd on Lookout Mountain, which is probably just outside the project area. If elk occur in the project area or could be affected by activities in the project area, we believe that BLM should consider and adopt the provisions related to elk protection that are found in the BLM’s Jack Morrow Hills Coordinated Activity Plan, and consider the literature cited therein (especially the studies of elk in the Jack Morrow Hills area by Powell).</p>
WI	80	16	Wyoming Outdoor Council	<p>Habitat fragmentation is a crucial issue and we ask that BLM carefully consider this issue in the EIS. Attached are two reports that address habitat fragmentation, and we ask that BLM consider them. Exhibits 10 and 11. BLM should adopt these methodologies to make quantitative predictions of to what degree the habitat in the project area will be fragmented. It should also adopt as ROD decisions many of the recommendations made in these reports. In particular, we believe</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				that ROD should provide limits on density of roads that will be permitted in the area and limits on the density of active well pads that will be permitted (See Part III of these comments for further discussion of BLM authority to provide these limits).
WI	80	17	Wyoming Outdoor Council	Last, BLM must carefully address sensitive and special status species protection in this area. These include a number of "sagebrush obligate" species and raptor species. To ensure full protection of these species, BLM should carefully consult with the U.S. Fish and Wildlife Service (as well as state game and fish agencies) to ensure that it fully protects these species. BLM must carefully adhere to its Special Status Species Management Manual. Even for BLM sensitive species (which receive the same protections as do candidate species), BLM must develop detailed population information, develop specific management plans and conservation strategies, and monitor these species. BLM Special Status Species Management Manual §§6840.06.C.1-2; .E. With respect to the highly endangered Colorado River fish species, BLM should consider water depletion issues from the perspective of the totality of this project. The project as a whole will probably deplete at least several hundred acre-feet of water from the Colorado River watershed, necessitating full compliance with the Fish and Wildlife Service protective measures ("RIP/RAP"), including payment of depletion fees; individual wells (which only deplete about 2-3 acre/feet) should not be allowed to escape compliance with the protections for these species. More specifically, a "depletion fee" should be required to be paid into the special fund established to protect the Colorado River fish species based on the total amount of water anticipated to be depleted by drilling 4208 wells and no wells should be permitted until this fee is paid; payment of depletion fees should not be postponed until specific wells are proposed. Approaching this issue at the individual well level is entirely ineffective and ensure that no protections (funds) are provided for these highly endangered fish species.
WI	81	1	Wyoming Game and Fish Department	Big Game- Monthly winter distribution surveys (See Figure 1 for a preliminary map of pronghorn and mule deer winter distribution); displacement of big game species; mortality due to vehicle collisions and poaching; crucial winter range
WI	81	2	Wyoming Game and Fish Department	Sage Grouse/Raptors - Sage grouse and raptor seasonal protection; impact of new power lines on sage grouse predation; annual monitoring of sage grouse and raptor nests; sage grouse lek and raptor nest buffer zones; sage grouse lek and raptor nest searches; sage grouse winter surveys
WI	81	3	Wyoming Game and Fish Department	Impact Assessment - Analysis of direct, indirect, and cumulative impacts to wildlife and their habitat within and adjacent to the project area; impacts to Species of Greatest Conservation Need (SGCN) and T/E plant and animal species; impacts on wildlife, especially strutting sage grouse, caused by noise.
WI	81	4	Wyoming Game and Fish Department	Mitigation and Baseline Data Acquisition - Mitigation for short-term and long-term impacts to habitat; exclusion of waivers for wildlife habitat migration requirements; gathering baseline wildlife data.
WI	81	5	Wyoming Game and Fish Department	There are still many unanswered questions regarding the impact of gas development on wildlife species within these areas. Ideally, this project should incorporate wildlife research projects examining the effects of gas development on wildlife populations. These empirical data would be very helpful in answering questions as to the potential impacts to

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	81	6	Wyoming Game and Fish Department	When exceptions to stipulations are requested, there is often a need for additional sage grouse lek, raptor nest, and big game winter range distribution data, which is needed in a specific area within a few days. Our Department's budget is limited, and vehicle mileage and flight budgets are fixed each year. When additional data are needed for exception requests, it is often additional work for our field personnel. Industry should fund wildlife surveys exceeding those that are normally completed each year by state and federal biologists.
WI	81	7	Wyoming Game and Fish Department	The ability to determine the level of impacts throughout development and production is an issue. A wildlife monitoring plan should be developed, and its protocol should specify increases in survey intensity relative to increases in well
WI	82	1	Individual	Our experience in other areas is that this density of development destroys critical animal habitat and other ecological values, as well as cultural (archeology), and scenic attributes. Areas like the Kinney Rim make Wyoming unique and
WI	82	5	Individual	The area contains a white-tailed prairie dog complex that could serve as important habitat for black-footed ferret reintroduction. High density development would destroy or compromise this prairie dog complex and it should be protected whether or not drilling proceeds.
WI	85	1	Colorado Division of Wildlife	The habitat in proposed project area has high wildlife value. Wildlife species found in the area include mule deer, elk, moose, pronghorn, greater sage-grouse, white-tailed prairie dogs, coyotes, bobcats, mountain lions, golden eagles and other raptors, Great Basin spadefoot toads and numerous other migratory and resident species. The area proposed is also located in deer, elk and pronghorn winter range. Greater sage-grouse use the area nearly year-round. The project boundary also includes a significant portion of the original planned black-footed ferret release area in the Little Snake Field Office.
WI	85	2	Colorado Division of Wildlife	Oil/gas development is but one of the many different uses of the BLM land. It should not dominate the landscape. This development should be done cautiously and carefully in a planned manner. The proposed development of oil and gas resources in the Hiawatha area concerns CDOW. We realize that the oil/gas resource within this area will be explored and developed, but we also believe that it should be done in a way that protects wildlife and habitat in the area.
WI	85	3	Colorado Division of Wildlife	The proposed location lies within "Winter Range" for mule deer, elk and pronghorn. "Winter Range" is defined and mapped by CDOW as that part of the overall range where 90% of the individuals are located between the first heavy snowfall and spring green-up during the average five winters out of ten OR for a site specific period defined by CDOW personnel for that Data Analysis Unit. Combinations of deep snow, below zero temperatures, and crusting snow all have impacts on big game survival. Construction activities during the time period from December 1st through April 15th will negatively impact these species wintering in this project area by causing them to incur increased winter stress and/or displace wintering big game to less suitable habitat. Negative impacts to these species would be minimized in this area

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
				by avoiding construction activities during this sensitive winter period.
WI	85	4	Colorado Division of Wildlife	<p>Significant periodic movements of pronghorn occur within the project area during heavy winters as Wyoming antelope move to more southern winter ranges in Colorado. These movements can occur perhaps as often as two out of ten years, although the long string of mild winters in the 1990s and 2000s have seen less frequent movements. These large-scale movements may be key to maintaining the pronghorn populations in both the Wyoming and Colorado portions of the project area and surrounding ranges as they allow Wyoming pronghorn to escape severe winter conditions and often result in significant long-term contributions of pronghorn to Colorado populations. Effects of high density gas development on this periodic migratory pattern, both in the project area and in surrounding areas, should be</p>
WI	85	5	Colorado Division of Wildlife	<p>Greater sage-grouse use the area nearly year-round. Activities include spring time breeding and nesting, early and late brood rearing in the spring and into the summer as well as fall and winter use of habitat. There are several active greater-sage leks (strutting grounds) in and near to the proposed area. Three lek sites are located in the western portion of the project area around Moffat County Road 10N, between Moffat County Road 72 and the Wyoming state line. An additional large lek site is located a short distance east of the project area on Racetrack Flat, with another lek to the southeast in the vicinity of Coffee Pot Spring. Breeding habitat, including lekking, nesting, and early brood rearing habitat, is demonstrated by telemetry studies in the project area and elsewhere to include the area within a four mile radius around any active lek.</p> <p>Ongoing telemetry of greater sage-grouse in the Cold Spring Mountain area within and to the west of the project area demonstrates that these sage-grouse are part of a migratory population centered in Colorado, but with movements into both southern Wyoming and northeastern Utah. This population breeds on leks along Moffat County Road 10N, on Cold Spring Mountain and in adjacent portions of Wyoming and Utah. Nests are concentrated in higher elevations west of the project area, but have also been documented within the project area in Colorado and Wyoming through this study. This migratory population concentrates within the project area during the winter months, both in Colorado and Wyoming. Major concentration of wintering birds occur along in western portions of the project area, but wintering birds are distributed across the project area, with some telemetered sage-grouse moving as far east as Racetrack Flat. CDOW radio-telemetry data is available for use in development of the Environmental Impact Statement.</p> <p>While the population of greater sage-grouse concentrated in western portions of the study area are migratory, sage-grouse in and adjacent to the eastern portion are likely not migratory. CDOW does not have any telemetry information on sage-grouse from the Racetrack Flat or Coffee Pot Spring leks, but CDOW biologists believe that this group of birds does not migrate to the Cold Spring Mountain area. These sage-grouse most likely occupy sagebrush</p>
WI	85	6	Colorado Division of Wildlife	<p>The naturally fragmented nature of sagebrush habitats within the project area makes protection and effective reclamation of existing sagebrush patches of particular importance to the long-term persistence of greater sage-grouse. Merely locating gas facilities in salt desert shrub communities to avoid sagebrush patches is inadequate protection for sage-grouse habitat and has substantial unintended consequences. While it may provide limited protection for sage-grouse habitat, it will dramatically increase forage losses for big game wildlife.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	85	7	Colorado Division of Wildlife	<p>The following suggestions would specifically help reduce the impact to greater sage-grouse populations and their habitat:</p> <ul style="list-style-type: none"> * Avoid drilling, pad construction, road construction, and other high impact activities from March 1 through June 30. * Minimize surface disturbance and fragmentation of sage-grouse habitat through use of the smallest facility footprints possible, use of multiple well pads, clustering of roads and pipelines, and the widest possible spacing of surface facilities. * Use Low profile equipment when possible to limit predator perches. * Locate compressor stations at least 2500 feet away from greater sage-grouse lek sites and use noise reduction equipment on compressors and other development and production equipment. * Use early and effective reclamation techniques, including an aggressive interim reclamation program to return habitat to use by sage-grouse as quickly as possible. * Avoid aggressive non-native grasses in sage-grouse habitat reclamation. Sage grouse habitats should be reclaimed with native grasses including bunchgrasses and forbs attractive to sage-grouse and other wildlife appropriate to the site. Brood rearing areas should include a substantially higher percentage of forbs. Wyoming big sagebrush should be
WI	85	8	Colorado Division of Wildlife	<p>The project area contains extensive areas of active and inactive white-tailed prairie dog towns, including substantial portions of one of the largest contiguous complexes of towns in northwestern Colorado and extending into Wyoming. White-tailed prairie dogs are a species of considerable conservation interest to CDOW. Work on a statewide conservation plan for the species will begin within the next year. While the impacts of oil and gas development on prairie dogs are not well quantified, the Environmental Impact Statement should carefully evaluate potential impacts of the project on this species and associated dependent wildlife and address measures to maintain this species within the</p>
WI	85	9	Colorado Division of Wildlife	<p>The large white-tailed prairie dog complex within the project area was the original preferred release site for black-footed ferrets in Colorado. An alternate initial release site was selected when prairie dog numbers fell below levels required to sustain a ferret release. Black-footed ferret re-introduction in the vicinity is covered under an Experimental/Non-essential Rule, but gas development should occur in such a manner that eventual release of ferrets would not be precluded, if and when white-tailed prairie dog populations return to sufficient levels to support ferrets.</p>
WI	85	10	Colorado Division of Wildlife	<p>Golden eagles and other raptors, including ferruginous hawks, nest in the project area. Substantial increases of eagles and rough-legged hawks occur through the winter months as northern migrants enter the project area.</p> <p>CDOW recommends that the nest buffers and timing restrictions attached to this letter be applied to gas development within the project area.</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	85	11	Colorado Division of Wildlife	<p>G Lake and Fonce Lake provide periodic pond environments used by Great Basin spadefoot toads for breeding. These ponds can also provide habitat for tadpole shrimp, a crustacean endemic to seasonal pools in the project area. Other ponds in the project area may provide additional habitat. Great Basin spadefoot toads also make some use of ponded and slow flow areas within the Vermillion Creek drainage complex.</p> <p>Gas development and related structures, road and pipeline crossings of drainages, etc. should be constructed and managed to ensure that these seasonal pools are not affected by the development. Particular care should be taken to see that development avoids the pools and a suitable surrounding buffer, that the clay pan that allows water ponding is not broken, that water flow to seasonal ponds remains intact and is not diverted away or blocked from reaching the pool areas, and that sedimentation of the pools is effectively controlled.</p>
WI	85	12	Colorado Division of Wildlife	<p>Measures to protect wildlife at evaporation/holding pits should be considered. Wildlife of all sizes could accidentally enter the evaporation/holding pits of gas wells at any time during the year. We highly recommend the using of netting and fencing or other effective protective measures to prevent unnecessary impacts to wildlife before significant wildlife mortality occurs.</p> <p>Wildlife should have no difficulty escaping pits provided they are lined with dirt and the pit slopes are kept to a 3:1 ration or lower. CDOW recommends that pits be lined. However, lined pits may be difficult for wildlife to exit unassisted. Trapped wildlife is likely to perish from drowning, toxicity or impounded water, or exposure. If pits have poor traction, we suggest that escape ramps are placed at 50 foot intervals on the pit banks and at each corner. Escape ramps made of galvanized chain link fence material would be adequate traction for most wildlife to exit the pits. It is recommended that escape ramps be 24 inches wide and extend from the top edge of the pit linter to the pit floor. No escape system fully replaces effective netting and fencing.</p> <p>Incidents involving wildlife dying in evaporation/holding pits should be reported to the Colorado Division of Wildlife or the</p>
WI	85	13	Colorado Division of Wildlife	<p>Companies associated with the project should be advised that, as per Colorado Revised Statute 33-6-109 (1), it is unlawful for any one to hunt, take, or possess wildlife except as permitted by Colorado Statute or by Colorado Wildlife Commission regulation. Criminal and civil actions resulting in penalties for wildlife that is illegally taken could be imposed against individuals and companies.</p>
WI	85	23	Colorado Division of Wildlife	<p>The Division of Wildlife also recommends off-site mitigation to lessen impacts on wildlife displaced by oil/gas activities. Portions of this energy project will be occurring within and throughout critical habitat for mule deer, elk, pronghorn and greater sage-grouse and include winter range, summer range, and production areas. This may make effective "onsite" mitigation immediately impossible in some instances. Offsite mitigation may be beneficial for these species.</p> <p>To achieve offsite mitigation, areas should be designated where forage improvement projects could be implemented. Mitigation efforts would attempt to increase wildlife use of the mitigation areas beyond the use levels already occurring. Therefore, mitigation must exceed 1 to 1 acre equivalents to provide a true benefit to wildlife. To adequately mitigate this disturbance, all acres of habitat disturbed by this project should be mitigated off site at a rate of 3 acres of mitigation to</p>

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	85	24	Colorado Division of Wildlife	Companies could also elect to set up a mitigation fund earmarked for habitat improvement projects in adjacent areas to offset disturbance. This method would be less desirable than rapid development of mitigation effects but may have merit in some circumstances. A wildlife cash mitigation fund for habitat enhancement could be established where off site or onsite mitigation is not feasible. Compensatory funds could be established for CDOW to use at their discretion for habitat enhancement projects, or for obtaining lands to be set aside for hunting and recreational use as State Wildlife Areas.
WI	85	25	Colorado Division of Wildlife	BLM should require proponents of this project to submit a full plan of development for the entire field. This would be helpful for wildlife managers in evaluating, avoiding and mitigating wildlife impacts. Wildlife managers need to look at the large picture to help create strategies for development. Phased development is one of these strategies. Areas could be designated for development and others would be left untouched until earlier areas are developed and interim reclamation is established. This could give wildlife undisturbed areas within the field to move their activities to. Once drilling is finished and BMP's are in place in the development area wildlife may transition their use back to a developed area once
WI	86	6	National Wildlife Federation, Rocky Mountain Natural Resource Center	Under FLPMA, the BLM is bound by the general policy that "the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide for outdoor recreation and human occupancy and use." 43 U.S.C. § 1701(a)(8)(1976). Therefore, FLPMA sets forth a multiple use mandate that federal agencies may not ignore. With regard to the Hiawatha project area specifically, this means that the Rock Springs and Little Snake offices of the BLM must consider effects on the conservation of wildlife species and habitat, notably the greater sage-grouse, in determining appropriate natural gas extraction management. The Greater Sage-grouse has been identified by the Wyoming BLM and Wyoming Game and Fish Department ("WGFD") as a sensitive species; this designation places a heightened duty on the agencies to conserve and protect the species and its habitat. Wyoming Bureau of Land Management, Sensitive Species Policy and List 7 (2002). The BLM is required by both its sensitive species management policy and FLPMA to not only conserve the greater sage-grouse, but also to ensure that the species will not be listed under the Endangered Species Act ("ESA").
WI	86	7	National Wildlife Federation, Rocky Mountain Natural Resource Center	NWF is concerned that the cumulative impacts from this project in addition to the other projects would contribute to a region-wide species decline. Such decline is likely because while it is possible that the sage-grouse within the impacted area will move to other, offsite areas, there is evidence that this will only overburden the surrounding areas where wildlife have relocated as a result of other projects. Matthew J. Holloran, Greater Sage-Grouse Population Response to Natural Gas Field Development in Western Wyoming 73 (2005). The presence of existing development and other ongoing and proposed projects in the area also means that the relocation of wildlife to adjacent habitats will be limited by the fact that the impacts of large-scale developments within habitats cannot be absorbed by surrounding habitats because wildlife populations already occupy whatever vacant, suitable habitat exists. See WGFD, Minimum Recommendations at 5-6. The EIS, in meeting BLM's sensitive species obligations, must address the possibility of other mitigation measures recommended by WGFD, such as mitigation trusts, conservation easements, and offsite/off lease mitigation efforts to counteract the offsite effects. WGFD, Minimum Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats on BLM Lands 21.

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	86	8	National Wildlife Federation, Rocky Mountain Natural Resource Center	In addition, the EIS needs to consider the status, trend, and effectiveness of existing measures to protect all other threatened, endangered, and candidate species, as well as species of concern or recreational or economic significance, in the project area and cumulative impact area. Species and habitat to be analyzed must include (but are not limited to): <ul style="list-style-type: none"> · Black-footed ferrets (including prairie dog colonies), including areas identified as potential reintroduction habitat for black-footed ferrets · Bald eagles, peregrine falcons, and ferruginous hawks · Sage grouse · Pronghorn antelope and mule deer (including crucial winter range, migration corridors, parturition areas, and other crucial habitats)
WI	86	12	National Wildlife Federation, Rocky Mountain Natural Resource Center	Given the intensive and widespread development impacts that big game, sensitive, and other species are facing, compliance with WGFD Minimum Recommendations is of critical importance in avoiding or minimizing unacceptable impacts to wildlife habitats and population.
WI	91	4	Vermillion Ranch Limited Partnership	VRLP supports the 5% surface disturbance proposal adopted by Moffat County as part of the Sagebrush Initiative. This 5% surface disturbance limit needs to be applied throughout the project area for a number of reasons...Second, this area is the site of identified winter range and migration corridors for wildlife, as well as sage grouse occupied habitat. Thus, changes in the vegetation and habitat will not only affect VRLP operations, it will drive wildlife and game animals to other sites, with
WI	91	9	Vermillion Ranch Limited Partnership	Surface disturbance will have direct impacts, such as removing vegetation, changing habitat, and, to an extent, displacing current land uses, including grazing by livestock and wildlife. There will also be indirect impacts that result from displacing wildlife. The area includes antelope and mule deer range, and a migration corridor for elk. There are also sage grouse and lek areas. Constructing well pads, roads, and burying pipelines for collection and delivery will remove vegetation, lead to some soil erosion and dust. While many impacts are short-term or temporary, they can still have other longer-term effects on the ranch operations,
WI	91	11	Vermillion Ranch Limited Partnership	Moffat County has adopted a 5% surface disturbance rule under which energy development projects are held to a maximum of 5% surface disturbance at any given time in the area. This outcome or objective is in lieu of seasonal and human activity restrictions that might otherwise be imposed. For instance, the 5% rule is in lieu of the prohibition or restriction on surface uses within 2 miles of a lek during sage grouse breeding nesting, and rearing seasons. The assumption is that the habitat will be maintained and the sage grouse and other wildlife and their habitats will suffer minimal disruption, if the remaining 95% of the habitat is undisturbed. The 5% rule adopted in the Sagebrush Initiative reflects discussions and negotiations with environmental organizations, wildlife agencies and the BLM. This restriction gives energy companies the incentive to quickly reclaim disturbed areas in order to expand or build out the project. Moreover it ensures prompt reclamation, since future expansion is tied to effective reclamation. The same restriction also addresses the consequences faced by ranchers and other public land users. If there is assurance that no more than 5% of the project area will be disturbed at any point in time, it is possible for operators to plan around the construction and to make adjustments. Similarly recreation and wildlife use can be more readily

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	91	12	Vermillion Ranch Limited Partnership	accommodated. The project EIS must also take into account the black footed ferret recovery project where there is a non-essential population. Any development that affects the ferret prey base of prairie doges may require consultation with the U.S. Fish
WI	91	17	Vermillion Ranch Limited Partnership	The project needs to coordinate predator control in cooperation with local agencies to ensure that sage grouse numbers are not depleted due to increased predator populations.
WI	93	7	Sweetwater County and Sweetwater County Conservation District	The local governments support maintaining wildlife resources but are concerned that the lack of consistent base line data will distort the treatment of wildlife issues in the EIS. The EIS needs to distinguish between sage grouse, which is a sensitive species, and other game animals, whose numbers are stable or have steadily increased in the last several decades. The issues surrounding the sage grouse numbers are more complex with drought and predators being significant factors whose effects are difficult to quantify.
WI	93	9	Sweetwater County and Sweetwater County Conservation District	The project area also provides important winter range for game species, including antelope, mule deer, and elk. The vegetation changes resulting from construction and reclamation will also affect wildlife habitat and potentially displace wildlife for varying periods of time (hours to years). Hunting plays a major role in county recreation and the impacts on wildlife and hunting must be fully addressed.
WI	93	10	Sweetwater County and Sweetwater County Conservation District	It should be possible to accommodate wildlife without shutting down operations for several months out of the year. While the Green River RMP classifies part of the area as crucial winter range, SWC and SWCCD support efforts to address the impacts on winter range without shutting down operations. In recent years, SWC has learned that seasonal closures for wildlife have significant and adverse effects on the communities. The closures create a mini boom and bust cycle in the communities and ensure that most workers are transient or temporary.
WI	93	11	Sweetwater County and Sweetwater County Conservation District	Notwithstanding the disagreement regarding the extent of the antelope crucial winter range in the project area, this issue needs to be fully explored with all of the cooperators.
WI	93	12	Sweetwater County and Sweetwater County Conservation District	CDOW has been doing work regarding sage grouse numbers and habitat management that should be incorporated into the EIS. SWC and SWCCD believe that habitat improvement measures are preferable to large avoidance areas. Regardless it is better to look at actual habitat and improvements to be made rather than theoretical circles and to treat sage grouse areas as polygons rather than circles. The EIS also needs to consider the migration patterns of sage

Hiawatha Scoping Comments by Category

Category	ID	Comment #	Org.	Comment Text
WI	93	13	Sweetwater County and Sweetwater County Conservation District	The EIS must also consider the impacts of wild horse populations in the project area, which includes part of the Salt Wells Wild Horse Management Area. The horse numbers are established by land use plan and judicial decree but wild horses will directly affect the success of reclamation due to the amount of forage consumed, their trailing patterns, and the fact that they will be attracted to new and more palatable forage.
WI	93	19	Sweetwater County and Sweetwater County Conservation District	BLM and the project manager also need to work closely with predator management through the Animal Damage Management Board and local boards. Predators are an especially important factor for sage grouse and antelope
WI	94	3	Individual	We would also like to have adaptive management be a part of this EIS. It is important to have monitoring and scientific data to develop better habitat and know what is going on the ground with greater sage grouse and big game. This could be a public/private partnership with the BLM and industry.