
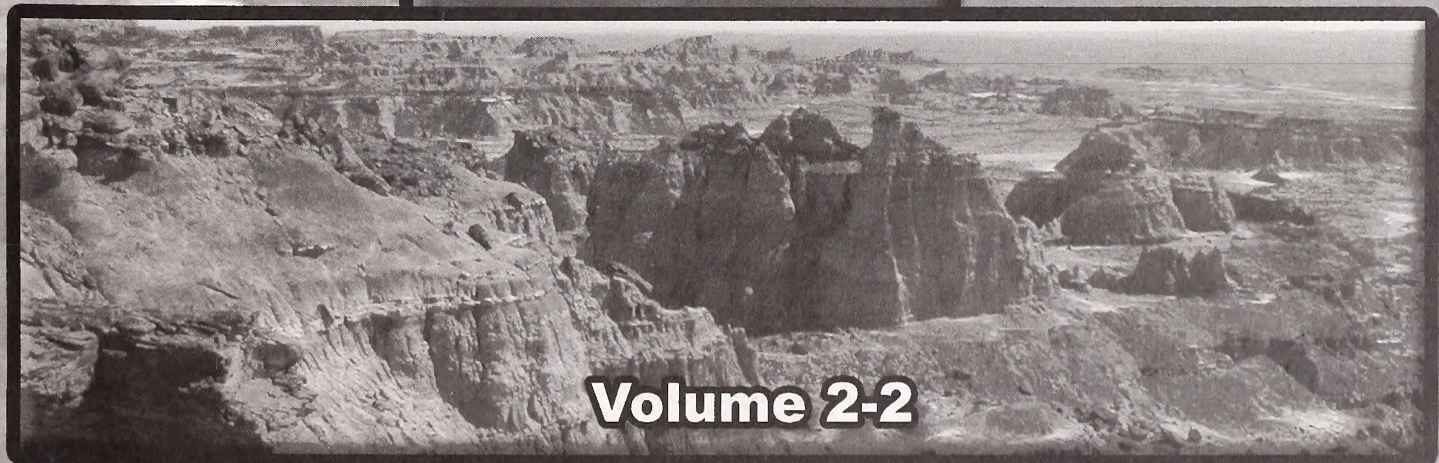
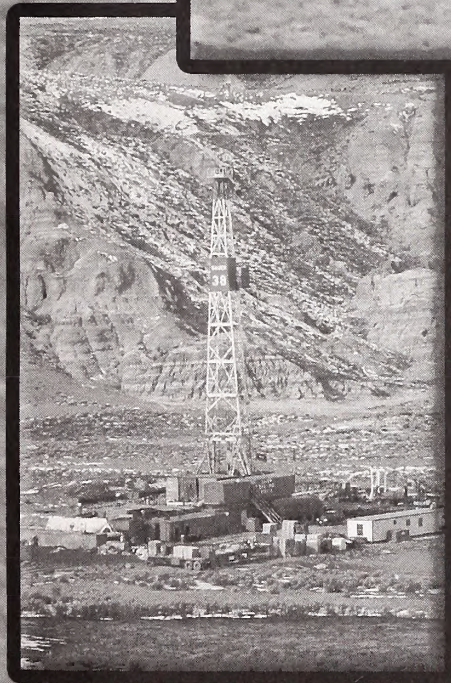
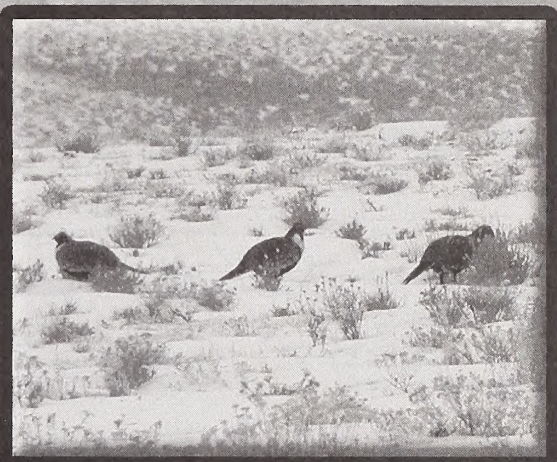


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PROPOSED
Resource Management Plan and
FINAL
Environmental Impact Statement for the
Rawlins Field Office



Volume 2-2

Wyoming State Office - Rawlins Field Office



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.

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APPENDIX 15—BEST MANAGEMENT PRACTICES FOR REDUCING SURFACE DISTURBANCE AND DISRUPTIVE ACTIVITIES

Best management practices (BMP) are innovative, dynamic, and economically feasible mitigation measures applied on a site-specific basis to reduce, prevent, or avoid adverse environmental or social impacts. BMPs are applied to management actions to aid in achieving desired outcomes for safe, environmentally sound resource development by preventing, minimizing, or mitigating adverse impacts, and reducing conflicts. The following list of BMPs, although extensive, is not all inclusive. As technology and management opportunity change, new BMPs may become available that would be considered for addition to the list.

REDUCING IMPACTS TO BIG GAME CRUCIAL WINTER RANGE

The following BMPs would be considered to reduce impacts to big game crucial winter range:

- Directional drilling
- Drilling of multiple wells from a single pad
- Remote well monitoring
- Piping of produced liquids to centralized tank batteries offsite to reduce traffic to individual wells
- Transportation planning (to reduce road density and traffic volumes)
- Cluster development
- Compensation mitigation
- Seasonal restriction of public vehicular access
- Monitoring of wildlife populations during drilling operations and design and employment of additional best management practices whenever monitoring identifies undesirable impacts.

REDUCING IMPACTS TO SAGE-GROUSE HABITAT

The following BMPs would be considered to reduce impacts to sage-grouse habitat:

- Directional drilling
- Drilling of multiple wells from a single pad
- Seasonal restriction of public vehicular access
- Noise-reduction techniques and designs
- Using low-profile well facilities and tanks
- Burying of power lines to avoid use of poles and other tall structures
- Transportation planning to align roads out of sight and sound of leks, and to schedule traffic to avoid sage-grouse activity periods
- Designing of roads to minimum safe standard for intended use

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- Partial reclamation of high-standard roads needed for project construction to lower standards necessary for maintenance operations
- Monitoring of wildlife populations during drilling operations and design, and employing additional best management practices whenever monitoring identifies undesirable impacts
- Prohibiting surface disturbance or occupancy within ¼ mile of the perimeter of occupied sage-grouse leks
- Avoidance of human activity between 6:00 p.m. and 9:00 a.m. from March 1 through May 20 within ¼ mile of the perimeter of occupied sage-grouse leks. These times and dates reflect recommendations from Wyoming Game and Fish Department (WGFD) based on site-specific data for the Resource Management Plan Planning Area (RMPPA)
- Avoidance of surface disturbance or other disruptive activity from March 1 through July 15 up to 2 miles from an “active” lek in suitable greater sage-grouse nesting habitat. These dates reflect recommendations from WGFD based on site-specific data for the RMPPA.

REDUCING IMPACTS TO WILDLIFE HABITAT

The following BMPs would be considered to reduce impacts to wildlife habitat:

- Seasonal restriction of public vehicular access
- Noise reduction techniques and designs
- Installation of raptor anti-perch devices
- Monitoring of wildlife populations during drilling operations and design, and employment of additional best management practices whenever monitoring identifies undesirable impacts
- Implementation of the Wyoming Bird Conservation Plan from Wyoming Partners In Flight.

The Bureau of Land Management (BLM) will consider management actions in the WGFD Minimum Programmatic Standards Recommended by the WGFD to sustain important wildlife habitats affected by oil and gas development.

REDUCING IMPACTS TO VISUAL RESOURCE MANAGEMENT CLASS II AND III AREAS

The following BMPs would be considered to reduce impacts to visual resource management Class II and III areas:

- Burying of distribution power lines and flow lines in or adjacent to access roads
- Repeating elements of form, line, color, and texture to blend facilities and access roads with the surrounding landscape
- Painting all above-ground structures, production equipment, tanks, transformers, and insulators not subject to safety requirements to blend with the natural color of the landscape, using paint that is a non-reflective “standard environmental color” approved by the BLM visual resource management (VRM) specialist

- Performing final reclamation recontouring of all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography
- Avoiding facility placement on steep slopes, ridge tops, and hilltops
- Screening facilities from view
- Following contours of the land to reduce unnecessary disturbance
- Recontouring and revegetating disturbed areas to blend with the surrounding landscape
- Reclaiming unnecessary access roads as soon as possible to the original contour
- Using gravel of a similar color to adjacent dominant soil and vegetation colors for road surfacing
- Avoiding locating pads in areas visible from primary roads
- Using subsurface or low-profile facilities to prevent protrusion above horizon line when viewed from any primary road
- Avoiding the routing of well access roads directly from state, county, or BLM roads
- Co-locating wells when possible
- Locating facilities far enough from the cut and fill slopes to facilitate recontouring for interim reclamation
- Locating wells away from prominent features, such as rock outcrops
- Completing an annual transportation plan for entire area before beginning construction, and making a layout that will minimize disturbance and visual impact
- Designing and constructing all new roads to a safe and appropriate standard “no higher than necessary” to accommodate their intended use
- Locating roads far enough off the back of ridgelines so they aren’t visible from state, county, or BLM roads
- Using remote monitoring to reduce traffic and road requirements
- Removing unused equipment, trash, and junk immediately.

REDUCING IMPACTS FROM FLUID MINERAL CONSTRUCTION, OPERATION, AND RECLAMATION

The following BMPs would be considered to reduce impacts from fluid mineral construction, operation, and reclamation:

- Directional drilling
- Drilling of multiple wells from a single pad
- Transportation planning (to reduce road density and traffic volumes)
- Remote well monitoring
- Piping of produced liquids to centralized tank batteries offsite to reduce traffic to individual wells
- Submersible pumps

- Belowground wellheads
- Bussing of workers (to reduce traffic volume)
- Flareless well completions
- Pitless drilling
- Burying of distribution power lines and flow lines in or adjacent to access roads
- Design and construction of all new roads to a safe and appropriate standard “no higher than necessary” to accommodate their intended use
- Reuse of old roads or pads
- Interim reclamation of well locations and access roads soon after the well is put into production
- Avoidance of facility placement on steep slopes, ridge tops, and hilltops
- Storage of chemicals within secondary containment in case of a spill
- Onsite bioremediation of oil field wastes and spills
- Removal of trash, junk, waste, and other materials not in use.

APPENDIX 16—MOUNTAIN PLOVER MANAGEMENT GUIDELINES: OCCUPIED HABITAT PROTECTION MEASURES

To provide further protection of the mountain plover and to prevent the species from becoming listed as “threatened” or “endangered” under the Endangered Species Act, one or more of the following management guidelines will apply to occupied habitat (occupied habitat is defined as areas in which broods and/or adults have been found in the current year or documented in at least 2 of the past 5 years).

It should be noted that this list was developed in coordination with the United States Fish and Wildlife Service (USFWS). Specific protection measures from the list are identified on a case-by-case basis by the BLM as they apply to each proposed project. Some protection measures are used much more often than others. For example, the protection measure that involves moving a proposed facility ½ mile from identified occupied mountain plover habitat would rarely be implemented and would include only those projects that contribute to a large increase in both noise and human activities which would disturb birds during their breeding and nesting seasons. Protection measures that include seasonal restrictions, the use of car-pools, and timing management are implemented more frequently to reduce visual and audible disturbances during the bird’s sensitive time periods, such as breeding and nesting.

The management guidelines are as follows:

- To protect the identified mountain plover-occupied habitat, the proposed activity will not be allowed as proposed. An alternative, such as moving the facility, directional drilling, piping and storing condensate off the identified mountain plover-occupied habitat to a centralized facility, or other techniques that minimize ground disturbance and habitat degradation, will be required.
- To protect the identified mountain plover-occupied habitat, the proposed facility will be moved ½ mile from the identified occupied habitat.
- The access road will be realigned to avoid the identified mountain plover-occupied habitat.
- Within ½ mile of the identified mountain plover-occupied habitat, speed limits will be posted at 25 miles per hour (mph) on resources roads and 35 mph on local roads during the brood-rearing period (June 1–July 10).
- To protect the identified mountain plover-occupied habitat, power lines will be buried or poles will include a perch-inhibitor in their design. This will be required within ½ mile of the identified mountain plover-occupied habitat.
- To protect the identified mountain plover-occupied habitat, fences, storage tanks, and other elevated structures will be constructed as low as possible and/or will incorporate perch inhibitors into their design.
- Road-killed animals will be promptly removed from areas within ½ mile of the identified mountain plover-occupied habitat.
- To protect the identified mountain plover-occupied habitat, seed mixes and application rates for reclamation will be designed to produce stands of sparse, low-growing vegetation suitable for plover nesting.

- To minimize destruction of nests and disturbance to breeding mountain plovers, no reclamation activities or other ground-disturbing activities will occur from April 10–July 10, unless surveys consistent with the Plover Guidelines or other methods approved by the USFWS find that no plovers are nesting in the area.
- A plugged and abandoned well within ½ mile of the identified mountain plover-occupied habitat will have the casing cut off at the base of the cellar or 3 feet below the final restored ground level (whichever is deeper). The well bore shall then be covered with a metal plate at least ¼-inch thick and welded in place.
- To protect the identified mountain plover-occupied habitat, and because mountain plover adults and broods may forage along roads during the night, traffic speed and traffic volume will be limited during nighttime hours from April 10–July 10.
- To protect the identified mountain plover-occupied habitat, work schedules and shift changes will be modified from June 1–July 10 to avoid the periods of activity from one-half hour before sunrise to 10:00 a.m. and from 5:00 p.m. to one-half hour after sunset.
- To protect the identified mountain plover-occupied habitat, traffic will be minimized from June 1–July 10 by carpooling and organizing work activities to minimize trips on roads within ½ mile of the mountain plover-occupied habitat area.

APPENDIX 17—MONITORING AND EVALUATION

INTRODUCTION

Management actions identified for the Rawlins Resource Management Plan Planning Area (RMPPA) are based on studies and the best scientific and commercial information available. However, conditions may change during the life of the land use plan. Experience has shown that implemented management actions can be improved as new technology and new information become available. It is also possible that changes in land use will require a different management action to protect the resources. To address the changing conditions and provide management flexibility that uses best management practices, the Rawlins Field Office (RFO) conducts monitoring and evaluation, which measures the effectiveness of existing actions through monitoring and application of new scientific research. Monitoring and evaluation not only analyzes the current resource conditions as a result of implemented actions but also identifies and recommends alternatives or modified actions, as necessary, to reach established objectives and goals. This process provides the optimum means to check the effectiveness of management actions. Because the capability to conduct the process at the optimum level can vary from year to year, monitoring will be prioritized.

Decisions

Goals and objectives identified in the Record of Decision (ROD) for the land use plan will provide the direction for managing each resource. These goals and objectives are the foundation for developing a monitoring system to track the results of the management actions. Indicators that represent resource conditions or change are identified for monitoring. Performance standards are developed at the activity planning level, guided by the resource goals in the land use plan. Performance standards consider national and state-established standards such as the Standards for Healthy Rangelands and others that may have been developed for specific landscapes or resource conditions. Monitoring methods are selected and/or designed to read the indicators as scheduled in the Resource Monitoring Table (Table A17-1). In addition, data sources for studies and scientific research are identified and selected for use before the process is implemented.

Those actions that are not producing desired results would be modified or replaced based on the assessment of the new data. Where change can be accomplished, through an administrative determination or a categorical exclusion, the RFO will make that decision through normal business practices. Changes that require amending the land use plan will follow the amendment process, including National Environmental Policy Act (NEPA) compliance and public input.

Following the ROD for the Resource Management Plan (RMP), as part of the implementation planning, a monitoring plan would be developed. In addition, monitoring plans would be developed with appropriate coordination with local, state, and other federal agencies and interested publics during implementation activities and activity plan development.

Data Collection

Monitoring methods are implemented to collect data that detect any change in the indicators. Monitoring techniques consider when, where, and how often the monitoring will have to be repeated. Because much of the monitoring data is being collected by other federal and state agencies, a system should be established to regularly collect and coordinate this data. Scientific research, the most elusive of all the data, will require each resource specialist's close attention to new technology and the results from

research that can be attributed to best management practices for a resource. Developing technologies or better understanding of information needs may result in changes to the monitoring methods and what is being measured. This issue will be addressed during the assessment step.

The information collected through monitoring provides a variety of information that is applicable to one or more resource uses. Therefore, monitoring methods should be designed to address as many uses as possible. Existing monitoring and data collection from other federal, state, private, or educational institutions would be used where available. This action would increase the effectiveness and efficiency of the monitoring program by eliminating duplication and conflicting information.

Data Analysis

To further promote the adaptive environmental management process, the data collected from all monitoring, studies, and scientific results will be analyzed in a timely manner to determine the change that has occurred as a result of management action and to be a contributing factor to any modifications in existing monitoring requirements. Data will also be recorded and organized to facilitate analysis that will be used to assess management actions. When a change in resource conditions has been determined, resource specialists and other agency specialists will consult to determine what use or action caused the change. Data analysis will be conducted on a predetermined schedule. This schedule should take into consideration the data collection frequency for detecting change. Data will also be recorded and organized to facilitate analysis that will be used to assess management actions.

Assessment

The analyzed data will be assessed to determine whether the resource conditions are meeting the planned goals and objectives as defined by the performance standards, the cause of any change that occurs, and the appropriate action to take to achieve the desired outcome of a management action. New technology and management methods will be reviewed to determine their applicability for use in modifying or replacing current management actions. Occasionally, evaluation of monitoring data may indicate the need for changing the goals and objectives, which would require reinitiating the NEPA/planning process. Where the assessment indicates that the goals and objectives are still valid but the outcome as defined by the performance measures are not being achieved, a change or modification in management actions is warranted. To the degree that those changes have been analyzed in the original NEPA document, no additional NEPA would be required. If those changes have not been previously analyzed, supplemental NEPA will be required.

The assessment will develop recommendations to be considered by management for continuation, modification, or replacement of current management actions. Because adoption of a new management action may require changes in the monitoring plan, the assessment will also evaluate the effectiveness of the monitoring and data collecting methods and will recommend continual use, modification, or elimination.

An assessment team will be established that includes disciplines, expertise, and other agency involvement for conducting a thorough and complete assessment. An assessment schedule should be developed that ensures management actions are evaluated before an irreversible resource condition occurs.

RESOURCE MONITORING TABLE

The Resource Monitoring Table (Table A17-1) identifies the indicator that will be monitored to detect change in resource conditions, the method or technique of monitoring, the locations for monitoring, the

unit of measurement for monitoring, the frequency and duration for monitoring, and the action triggers or thresholds that indicate the effectiveness of the management action.

The actual indicator, amount, and frequency of monitoring will depend on the consideration of resource sensitivity, number of activities potentially affecting a resource, manpower, and funding. The actual monitoring plans would be developed during implementation activities and activity plan development.



Table A17-1. Resource Monitoring Table

Indicator	Method or Technique	Location	Unit of Measure	Frequency and Duration	Action Trigger
Air Quality					
Air quality	Ambient air sampling and air quality modeling	Area-wide	Parts per million	Hourly to 24-hour samples as per standards	Exceeding National Ambient Air Quality Standards. (BLM will inform the appropriate regulatory agencies [Wyoming Department of Environmental Quality, Air Quality Division [WDEQ-AQD] and Environmental Protection Agency [EPA] if dispersion modeling estimates a potential exceedence of the National Ambient Air Quality Standards [NAAQS] or Wyoming Ambient Air Quality Standards [WAAQS]. The regulatory agencies are responsible for determining whether an actual exceedence has occurred.)
Gaseous and particulate-critical air pollutants	Emission inventory	Area-wide	Pounds per hour and tons per year.	Annually	Whenever detected
Air Resources					
Climate	USHCN	SE Wyoming	°F, inches of precipitation	Continuous	None
Emissions	NO ^x tracking	Oil & gas fields	TPY	Annual	None
Concentrations	SLAMS ambient sampling	Cheyenne, SE Sweetwater County	µg/m ³ , ppm, ppb	Continuous	Criteria pollutant concentrations > NAAQS or WAAQS
Visibility	IMPROVE aerosol & optical	Snowy Range	dv, SVR, RcFM, etc	Weekly	Compliance with regional haze rule
Atmospheric deposition	CASTNet filter packs and NADP chemistry	Snowy Range	Kg/ha-yr	Weekly	Total deposition > thresholds
Cultural Resources					
National Register-eligible sites	Site inspection	Area-wide	Disturbance	Annually	Disturbance as a result of land uses or vandalism

Indicator	Method or Technique	Location	Unit of Measure	Frequency and Duration	Action Trigger
Fire					
Fire fuels	Site inspection	Wildland Urban Interface and industrial interface areas	Acres	Annually	Presence of fire fuels that present a risk to communities and industrial sites
Vegetation condition	Ecological site condition and trend studies	Vegetation types where there is a history of fire in the ecosystem	Representative sample	Annually	Vegetation growth trend is moving away from desired conditions for the vegetation type
Resource and property damage	Fire behavior	Individual fire	Fire temperature, flame length, burn rate, and acres burned	While fire is burning	Acres burned and fire intensity exceeds prescription
Forestry					
Forest health	Ecological site condition and trend	Forested lands	Representative sample area	Every 3-5 years	Disease, insect infestation, or encroachment of undesirable plant species threatens forest health
Timber stands	Timber stand exam	Commercial forested areas	Board feet, age class, and damages	Every 10-20 years	Basal area growth does not meet timber type standards
Lands and Realty					
Rights-of-way compliance	Site inspection	Area-wide	Site	Annually	Noncompliance or nonuse
Livestock Grazing					
Vegetation condition	Ecological site condition	All areas being grazed	Representative sample of grazed area	Annually	Conditions do not meet the goals and objectives for vegetation community or the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management
Vegetation trend	Ecological site trend	All areas being grazed	Representative sample of grazed area	Every 3-5 years	Vegetation type not moving toward objectives and goals
Forage utilization	Utilization study plot or site visit	All areas being grazed	Representative sample of grazed area	During or after area has been grazed	Key plant vigor is deteriorating

Indicator	Method or Technique	Location	Unit of Measure	Frequency and Duration	Action Trigger
Livestock numbers	Counts and site visits	All allotments	Number	Annually or when the livestock are moved on or off the allotment	Exceeds permitted numbers and use for vegetation condition
Minerals					
Surface disturbance	Remote sensing or site inspection	Mineral development sites	Acres disturbed	Annually	Acres disturbed are exceeding the range established for the area
Compliance with authorization	Area inspection	Area-wide	Compliance	During operations or annually	Noncompliance
Off-Highway Vehicle					
Surface disturbance	Remote sensing or site visit	Site	Acres of disturbance	Annually	Disturbance has exceeded the baseline, accelerated soil erosion is occurring, and vegetation is being removed
Paleontological Resources					
Significant paleontological resources	Site inspection	Site	Degradation or loss of significant fossil resources	Annually	Loss or damage to significant fossil resources resulting from human or natural causes
Recreation					
General recreation use	Inspection or remote sensing	Area-wide, with emphasis on dispersed recreation	Change over time and visitor days	Annually	When change is causing undue or unnecessary degradation of the site or area
Concentrated recreation use	Inspect developed recreation sites or areas that have facilities	Recreation site	Condition of recreation site, facilities, and visitor days	Annually	When change is causing undue or unnecessary degradation of facilities and use areas
Compliance with commercial authorization	Administrative review, site inspection	Activity site	Permit stipulations, resource conditions, and site restoration	During and after an event	When noncompliance is determined or degradation of resources are occurring

Indicator	Method or Technique	Location	Unit of Measure	Frequency and Duration	Action Trigger
Special Designations/Management Areas					
Resource condition	Site visit or remote sensing	Special Designation/Management Area	Amount of degradation or loss of resources	Every 1–5 years	Undue or unnecessary degradation or loss of resources as a result of human or natural causes
Transportation and Access Management					
Roads and vehicle routes	Road and vehicle route inspection through onsite inspection or remote sensing	Area-wide	Miles	Annually	When conditions represent a hazard to life and property
Vegetation					
Trend	Appropriate method from National Range Handbook	Area-wide	Representative sample	Every 3–5 years	Vegetation change from baseline or moving away from ecological status desired
Vegetation change	Photo points	Area-wide	Representative sample of vegetation type	Every 2–10 years	Used in conjunction with other methods to detect desirable and undesirable changes occurring to vegetation as a result of land uses
Precipitation	Weather stations	Representative sample to detect precipitation patterns	Inches of precipitation	Monthly and annually	Precipitation insufficient for plant growth during/after drought conditions
Noxious weed trend	Remote sensing or site visit	Area-wide	Acres of established weeds and potential habitat areas	Continuously	Weed species are spreading or becoming established in new areas
Special Status Species	Site inspection	Special Status Species habitats	Population and trend	Annually	When there is a declining trend in populations
Wetland/Riparian condition	Proper functioning condition (PFC)	Area-wide	Stream miles and acres along with rating	Yearly, following the Standards and Guidelines (S&G) schedule for locations	Ratings below PFC, defined by the ability of the wetland site to maintain itself and for riparian areas to withstand a 2-year storm event
Visual Resources					
Intrusions	Remote sensing or site visit	Class I and II areas	Impacts of an individual intrusion	Annually	When the intrusion exceeds the definition of the classification

Indicator	Method or Technique	Location	Unit of Measure	Frequency and Duration	Action Trigger
Water Quality, Watershed, and Soils					
General water quality	Water sampling surveys using the Beneficial Use Reconnaissance Program (BURP) Wyoming state protocol	Rivers and streams, locations selected to coincide with S&G schedule	Representative sample of water quality in standard units, depending on parameter	Yearly, following the S&G schedule for locations	When quality does not meet state standards or water quality can be improved by BLM management actions
Surface water quality of water bodies listed on state 303d list as threatened or impaired	Sampling and monitoring design depends on parameters that required listing	Watersheds where water bodies are listed	Typically includes coordination with other agencies and a developed water monitoring program	Seasonally, during period when water body is listed	When trend in water quality is not toward improving conditions for delisting
Project-specific surface water quality	Sampling, modeling, and/or monitoring design depends on parameters that could be impacted from project actions	Surface waters that may be impacted by BLM management actions	Representative sample of water quality in standard units depending on parameter or modeling results	Seasonally, during period when water body may be impacted	When quality does not meet state standards or water quality can be improved by BLM management actions
Groundwater quality	Groundwater sampling	Where groundwater resources are used (stock watering or water supplies for campgrounds)	Representative sample of water quality in standard units depending on parameter	Varies by project when they are established and campgrounds monthly	When water quality does not meet needs for uses
Groundwater resources, potential impacted by resource development	Well monitoring, sampling, and modeling	Area-wide	Depth to groundwater, water quality parameters	Monitoring wells may collect continuously, frequency and duration driven by project specifics	A significant environmental impact not considered or disclosed in the NEPA process

Indicator	Method or Technique	Location	Unit of Measure	Frequency and Duration	Action Trigger
Channel geometry	Riparian cross-sections	Area-wide	Change in stream channel (width, depth, side channel modification and bank sloughing)	Every 1–3 years	When channel conditions could be improved by BLM management actions
Soil erosion uplands	Visual observation and surveyed erosion pins	Area-wide where land use activities are occurring	Soil loss in tons per acre	Visual examination while land use activity is active and annual site surveys	When soil loss is accelerated beyond natural levels or beyond those considered or disclosed in the NEPA process
Soil erosion on stream banks and floodplains	Visual observation and surveyed erosion pins	Area-wide where land use activities are occurring	Area affected in square feet or acres	Visual examination while land use activity is active and annually survey the site	Accelerated streambank soil loss
Soil compaction	Penetrometer or visual inspection	Area affected by land use activities	Pounds per square inch	1–2 times annually	Compaction restricts water infiltration and plant growth
Soil compaction, porosity, permeability, and depth to water	Monitoring wells (piezometers)	Riparian areas	Depth to water table	Every 2–3 years	Water table is shrinking beyond average precipitation fluctuations
Stream flow	Stream gaging stations	Area-wide	Water volumes, times of flows, turbidity, pH, dissolved oxygen, and sediment loads	Monthly or during storm events	Trends indicate increased sediment load and deterioration in water quality
Wild Horses					
Horse numbers	Horse counts	Herd management areas	Number of animals	Annually	When numbers exceed established HML ranges
Horse blood	Blood sampling	Herd management areas	Blood analysis to determine animal health and genetic typing	When horses are gathered	Blood samples show deteriorating herd health or a genetic change

Indicator	Method or Technique	Location	Unit of Measure	Frequency and Duration	Action Trigger
Wildlife and Fisheries (in coordination with other federal and state agencies)					
Big game seasonal use and habitat condition	Aerial/field inspections and established/read browse transects	Crucial wildlife habitat areas	Numbers during occupancy periods and habitat condition	Annually	Downward trend in animal occupancy and habitat condition
Special Status Species occupancy/productivity and habitat condition	Aerial/field inspections and establish/read browse transects	Habitat areas and established buffer zones	Numbers during occupancy periods and habitat condition	Annually	Downward trend in animal occupancy and habitat condition
Threatened/Endangered species occupancy/productivity and habitat condition	Aerial/field inspections and establish/read browse transects	Habitat areas and established buffer zones	Numbers during occupancy periods and habitat condition	Annually	Downward trend in animal occupancy and habitat condition
Sage-grouse occupancy/productivity and habitat condition	Aerial/Field inspections of leks and establish/read browse transects	Lek sites	Numbers during occupancy periods and habitat condition	Annually	Downward trend in the number of males and habitat condition
Macroinvertebrate indicator species	Collection of macroinvertebrate species	Perennial streams	Species and condition of macroinvertebrates	Every 2–10 years	When there is a declining trend in the abundance or diversity of macroinvertebrate species representing good water quality or a declining trend in appropriate macroinvertebrate metrics
Neotropical bird habitat	Site visit	Area-wide	Numbers during occupancy period	Every 2–3 years	Declining trend in habitat occupancy
Raptors	Site visit	Area-wide	Nest occupancy rate	Every 2–5 years	Declining trend in nest site occupancy

APPENDIX 18—COMPENSATION (OFFSITE) MITIGATION

Offsite or compensation mitigation (OSM) would be used as a voluntary tool to address loss of habitat effectiveness when reclamation, best management practices (BMP), and onsite mitigation measures are not adequate to mitigate the impacts of activities authorized on the public land. Offsite mitigation or compensatory mitigation is a voluntary measure consistent with WO-IM-2005-069, Interim Offsite Compensatory Mitigation for Oil, Gas, Geothermal, and Energy Rights-of-Way Authorizations. This Instruction Memorandum (IM) is applicable only to oil, gas, and geothermal authorizations and energy right-of-way authorizations granted by the Bureau of Land Management (BLM). This IM has expired (see attachment A18-1). Other program guidance (3809 regulations) addresses offsite or compensation mitigation for hard rock (locatable) minerals. When an applicant's offsite mitigation proposal is part of the plan of development for an approved permit or grant, that mitigation will pass from being a voluntary proposal to becoming a requirement of the authorization. The applicant becomes committed to the offsite mitigation component once the authorization is granted.

The order of use of mitigation methods from most to least preferred would be as follows:

- Onsite mitigation directly resolving impacts created by the action
- Compensation mitigation to the resources affected by the action that cannot be resolved onsite
- Compensation mitigation to similar or related resources affected by the action that cannot be resolved onsite
- Compensation mitigation through the use of proponent-generated funds to a third party for use on same, related, or tangible benefits.

The following stipulations would apply to offsite mitigation measures:

- Compensation mitigation would be used as a last choice, not a first choice, when developing mitigation measures.
- Compensation mitigation proposals would describe the replacement or substitution activities or methods that would be used to address potential impacts to specific resources or environments or both.
- Compensation mitigation must be as close to "in kind" in replacement or substitution of resources, habitat function, or environments (e.g., elk habitat for elk habitat; historical properties for historical properties) as possible.
- Compensation mitigation activities are to occur as near to the project or impacted area as possible or as scientific information and impact analysis suggests.
- Compensation mitigation practices must last as long as the impacts are expected to occur.
- Compensation mitigation cannot be in any form of monetary compensation directly made to the BLM.
- Compensation mitigation practices are to be developed, conducted or performed, and funded by the project proponent.

- Compensation mitigation activities must be conducted subject to BLM review and approval that the mitigations will actually address the impacts occurring on the public lands.

Thresholds

When a threshold is reached, offsite mitigation would be applied. Thresholds would generally be set at the point where disturbance in a specific area exceeds the level that would be tolerated by wildlife, or exceeds the physical capacity of an area to absorb or dampen the impact (for example, actions causing surface runoff in excess of the capacity of soils to absorb or surface channels to carry without erosion of the channels). Threshold points for initiation of offsite or compensation mitigation would be developed on a project specific basis and could include—

- Oil and gas development in excess of 16 surface well pad locations per 640-acre section. (See Oil and Gas Operations Appendix for information on surface disturbance, including roads, associated with typical well pads.)
- Physical long-term surface disturbance in excess of 80 acres per 640-acre section, or 12.5 percent of odd-sized or smaller sections.
- Disturbance to cultural resources (settings) when setting is an element of National Register status.

The first threshold reached would trigger the compensatory offsite mitigation. More thresholds could be developed throughout the life of the Resource Management Plan (RMP) as knowledge of impacts and mitigation technology is gained. Additional thresholds could address impacts such as acres of limited habitat types, amount of aspen disturbed, noise levels, and human presence factors, like the number of vehicle trips in a specific area per day.

Options for specifics of compensation mitigation actions, including potential location of the compensating mitigation, methods, and number of acres treated, would be dependent on the proposed alternatives, and would be discussed at the implementation level—for example, through project-level Environmental Impact Statements for oil and gas field development. Some site-specific impacts cannot be known until projects are physically implemented. For this reason, final compensation mitigation requirements may not be determined, in some cases, until after the impacting action has occurred.

ATTACHMENT A18-1. IM 2005-069

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

February 1, 2005

In Reply Refer To:
3100/2800/1790
(310/350)P

EMS TRANSMISSION 02/02/2005
Instruction Memorandum No. 2005-069
Expires: 09/30/2006

To: All State Directors and Field Managers

From: Director

Subject: Interim Offsite Compensatory Mitigation for Oil, Gas, Geothermal
and Energy Rights-of-Way Authorizations

Purpose: This Instruction Memorandum (IM) outlines interim policy for the use of compensatory (offsite) mitigation for authorizations issued by the Bureau of Land Management (BLM) in the oil, gas, geothermal and energy right-of-way programs.

Background: Provisions of the Federal Land Policy and Management Act (FLPMA), including section 302(b) (43 U.S.C. §1732(b)), and of the Mineral Leasing Act, including section 17(g) (30 U.S.C. § 226(g)), provide BLM the authority to require mitigation in the oil, gas, geothermal and energy right-of-way programs. Mitigation measures are actions the Secretary can direct to prevent unnecessary or undue degradation of the public lands and protect surface resources in the approval of surface use plans. Mitigation measures are oftentimes proposed by proponents seeking BLM authorizations. These measures, as part of a proposed action, are analyzed as part of BLM's compliance with the National Environmental Policy Act (NEPA). Mitigation, as defined by the Council on Environmental Quality (CEQ) for NEPA purposes in 40 CFR 1508.20, may include one or more of the following:

- “(a) Avoiding the impact altogether by not taking a certain action or parts of an action;*
(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
*(e) **Compensating** for the impact by replacing or providing substitute resources or environments.” (emphasis added)*

This IM addresses the last category—offsite compensatory mitigation of impacts by replacing or providing substitute resources or environments. The application of this IM is further limited to the oil, gas, geothermal and energy right-of-way programs.

The last time the BLM addressed offsite mitigation in national policy was during promulgation of revisions to 43 CFR 3809-Surface Management regulations for locatable (hardrock) minerals, 65 FR 69998 (November 21, 2000). The BLM explained in the preamble that in the case of minerals, “BLM will approach mitigation on a mandatory basis where it can be performed on site, and on a voluntary basis, where mitigation (including compensation) can be performed offsite” 65 FR 69998 at 70012.

Because of recent interest expressed by cooperating agencies, State governments, and the public regarding offsite mitigation in the energy programs, the BLM is providing this policy guidance.

Attachment 1 defines terms used in conjunction with compensatory mitigation. Also, other Department of the Interior agencies have well-developed compensatory mitigation policies and procedures. A discussion of those programs is contained in Attachment 2.

Policy: The BLM will approach compensatory mitigation on an “as appropriate” basis where it can be performed onsite and on a voluntary basis where it is performed offsite. Further, this IM is not intended to establish an equivalency of mitigation policy by the BLM (i.e. acre for acre).

Since this policy generally adds a new dimension in mitigation practice for both BLM and public land users, it is being issued as interim guidance. The policy will

be reviewed and updated prior to the expiration date of this IM. We anticipate both internal and external feedback that will lead to improvements and policy modification.

General

- This IM is applicable only to oil, gas, and geothermal authorizations and energy right-of-way authorizations granted by the BLM. Energy right-of-way authorizations include oil and gas pipelines, electric transmission lines, and wind and solar energy authorizations. The IM does not apply to any other BLM program or activity.
- When an applicant's offsite mitigation proposal is part of the plan of development for an approved permit or grant, that mitigation will pass from being a voluntary proposal to becoming a requirement of the authorization. The applicant becomes committed to the offsite mitigation component once the authorization is granted.
- Offsite mitigation may be considered after application of other forms of onsite mitigation including best management practices (see also "Limitations" section).
- The BLM continues to have an obligation to ensure that actions do not result in unnecessary or undue degradation to the public lands. 43 U.S.C. §302(b).
- Offsite mitigation is to be entirely voluntary on the part of the applicant.
- When offsite mitigation is being considered as a design feature of the applicant's submission, BLM NEPA analysis should: 1) evaluate the need for offsite mitigation, 2) consider the effectiveness of offsite mitigation in reducing, resolving, or eliminating impacts of the proposed project(s), and 3) comparatively analyze the proposal with and without the offsite mitigation.
- The BLM may identify other offsite mitigation opportunities to address impacts of the project proposal, but is not to carry them forward for detailed analysis unless volunteered by the applicant.
- When applying offsite mitigation, it must be implemented in a timely manner and generally for the same or similar impacted species or habitats (for example, sagebrush/grassland for sagebrush/grassland).
- Offsite mitigation need not be permanent but should be of duration appropriate to the anticipated impact(s) being mitigated.
- This IM does not establish an equivalency requirement for offsite mitigation (no 1:1 compensation ratio).
- Any existing mandatory offsite mitigation programs used by Field Offices are to be reviewed in light of this national policy, and modified as appropriate.

- Offsite mitigation that has resulted from a formal Section 7 or Section 106 consultation is not affected by this IM.
- In cases where offsite mitigation is applied to an authorization to reduce impacts to less than “significant” for NEPA purposes the offsite mitigation must be committed and a condition of approval in the authorization issued.
- Offsite mitigation must not infringe on or affect other property rights including those of any mineral lessee of the offsite tract without agreement of affected parties.
- Offsite mitigation associated with a split estate lease must be in agreement with IM 2003-131 Permitting Oil and Gas on Split Estate Lands and Guidance for Onshore Oil and Gas Order No. 1.

Resource Management Plans

Older land use plans may not mention compensatory or offsite mitigation. Omission of such discussion does not prohibit consideration of offsite mitigation in accordance with this IM.

Endangered Species Act Section 7 Consultation

As mentioned earlier, any consultation with the U.S. Fish and Wildlife Service is subject to the applicable regulations and procedures for Endangered Species Act (ESA) consultation efforts. Any mitigation measures developed as a result of ESA consultation are not affected by the policies and procedures for use of offsite mitigation outlined in this IM.

National Historic Preservation Act Section 106 Consultation

Application of this policy to cultural resources must be consistent with the BLM’s National Historic Preservation Act (NHPA) Section 106 responsibilities and individual BLM/State protocols under the BLM National Programmatic Agreement (PA). This includes any required coordination with the State Historic Preservation Office, tribes and the Advisory Council on Historic Preservation (ACHP). There are inherent limitations to the applicability of offsite mitigation to resolution of adverse effects under Section 106 of the NHPA. Cultural resources are non-renewable and may be unique, and it may not be appropriate to mitigate loss of such resource values by attempting to identify and preserve an alternative equivalent one. This is particularly true when data recovery is used as mitigation for loss of a site important for its data value, since it may result in the destruction of two sites. There are exceptions; for instance, where treatment onsite is technically impossible and an offsite resource is also at risk, or where offsite data

recovery is part of an established research design and management strategy that will include onsite work.

Livestock Forage Mitigation

Impacts to livestock forage as a result of energy development are typically addressed through onsite mitigation using direct reclamation or rehabilitation techniques to re-establish the lost vegetation.

Financial Contributions toward Mitigation

In some circumstances, BLM may accept volunteered monies to pay for a larger effort to mitigate the impact of multiple actions when it is infeasible to require individual applicants to manage specific mitigation efforts. Such monies are to be used for on-the-ground projects. In order to qualify as offsite mitigation, the funds collected must be identified for specific types of mitigation projects and either the BLM or other parties may be identified as responsible for implementation of the project(s). However, it is not BLM policy to waive or forego onsite mitigation of impacts through payment of monies.

Where the effectiveness of mitigation will depend on future contributions from other applicants, such contributions cannot form the basis for a Finding of No Significant Impact or compliance with a legal limitation on effects, such as those in the Clean Air Act.

Whenever monies are handled either directly or indirectly by the BLM, pursuant to section 307(c) of FLPMA, a signed cooperative agreement will be required before any funds can be received or transferred. If a third-party organization agrees to accept voluntary funds from an applicant for funding of mitigation projects, the affected BLM office will enter into cooperative agreements with the affected parties (see BLM Manual 1511 and Manual Handbook 1511-1). The parties to the agreement must include the cooperators and the party or parties responsible for project implementation.

Monetary compensation can be made directly to the BLM in accordance with a formal cooperative agreement and with prior approval of the appropriate State Director. Compensation also must be properly recorded on Form 4120-9 ("Proffer of Monetary Contributions") and deposited in the appropriate 7100 (usually 7122) account for redistribution for offsite activities to offset adverse impacts for a particular action or class of actions. These accounts require assignment of specific project codes to track the contributions and subsequent expenditures. State Office Budget staff can provide assistance in establishing the project codes.

Cooperative agreements must also address the following items:

- Authority to enter into a cooperative agreement;
- Disposition of excess funds, if any;
- Project codes and tracking of funds incoming and outgoing (especially in the case of multiple contributors);
- Administrative surcharges;
- Other agency rules and requirements for cooperators; and
- Adequacy of funds for specific mitigation projects.

Field Offices are required to use a cooperative approach in approving projects where compensation funds are involved. It is usually appropriate to involve cooperators (e.g., State Game and Fish agencies) and any other directly affected parties in determining the specific mitigation projects. It is never appropriate for third parties to make these determinations without direct, local BLM involvement in the specific mitigation project. In undertaking cooperative efforts, the BLM needs to ensure compliance with the Federal Advisory Committee Act (FACA), if applicable.

Should the mitigation program provide for public input on offsite mitigation projects or the application of funds, Field Offices should be certain to comply with FACA when establishing a committee to provide it advice as a group, as opposed to the views of individual participants.

Attachment 3 is a list of “frequently asked questions” and appropriate responses for implementing this policy.

Limitations

Even with the most effective, state-of-the-art onsite mitigation, oil, gas, geothermal and energy right-of-way authorizations can result in impacts to the environment. The BLM will mitigate onsite impacts to the maximum extent practicable. Offsite mitigation is only appropriate when the specific conditions of a proposed project make such mitigation appropriate.

While the voluntary application of offsite mitigation is the general rule, there are circumstances where negotiation would be appropriate. In cases where one or more applicants in a specific geographic location have volunteered to perform offsite mitigation, it could be appropriate for other applicants in the same area to apply the same or similar offsite mitigation.

Timeframe: This IM is effective upon issuance. In instances where NEPA documentation is near completion for an action (e.g., preliminary Draft Environmental Impact Statement (EIS) is in the final stages of review), implementation of this policy may be modified to fit the specific circumstances so as not to delay publication of the EIS and approval of the project(s).

Budget Impact: None at this time.

Energy Impact: This IM may result in some increased costs to oil and gas and geothermal lessees, permittees, and operators and energy right-of-way holders. Because these parties would usually enter into offsite mitigation agreements voluntarily and with full knowledge of associated costs, it is unlikely that this policy would have any material adverse impact on energy supply, distribution, or use.

Manual/Handbook Sections Affected: None.

Coordination: Preparation of this IM was coordinated with WO-200, WO-300, WO-310, WO-350 and the Office of the Solicitor.

Contact: Tom Hare (WO-310) at 202- 452-5182, Ron Montagna (WO-350) at 202-452-7782, or Andrew Strasfogel (WO-210) at 202- 452-7723.

Signed by:
Kathleen Clarke
Director

Authenticated by:
Barbara J. Brown
Policy & Records Group, WO-560

3 Attachments

- 1 - Definitions (1 p)
- 2 - Departmental Compensatory Mitigation Programs (1 p)
- 3 - Frequently Asked Questions (4 pp)

APPENDIX 19—VEGETATION TREATMENTS, FOREST PRACTICES, AND RANGE IMPROVEMENTS

DESCRIPTION AND EFFECTS

Standard Operating Procedures

The Bureau of Land Management (BLM) Rawlins Resource Management Plan Planning Area (RMPPA) utilizes a variety of different best management practices (BMP) to manage vegetation communities and achieve multiple use objectives. Maintenance and improvement of the health of various vegetation communities is achieved through management prescriptions, including active treatments such as removing vegetation with fire, chemicals, biological or mechanical methods, planting or seeding vegetation, and grazing by various ungulates. This management focuses on the manipulation of selected components of the rangeland vegetation resource to meet predetermined multiple use landscape objectives. Descriptions of these management practices, including standard operating procedures and the desired effects of particular treatments, are described within this appendix.

Vegetation Treatments

All treatment projects would be subject to appropriate National Environmental Policy Act of 1969 (NEPA) compliance review. All prescribed burn projects would be designed with a burn plan and a smoke permit from the State of Wyoming's Department of Environmental Quality (DEQ), Air Quality Division, prior to implementation. Consultation with the interested public that would be affected, as well as an approved environmental analysis, would be required for all new vegetation treatment projects before any would be initiated. Each new vegetation treatment would be evaluated and examined in relation to multiple use objectives, including analysis of pretreatment and/or post-treatment grazing control measures, which would ensure that the management objectives of the project are met.

Pursuant to the policy of Wyoming BLM, prior to any vegetative treatment, a signed plan and/or agreement for grazing management would be in place. As a baseline, Wyoming BLM policy calls for deferment of livestock grazing on treated areas for two complete growing seasons, a period that may be adjusted to a lesser or greater time based on environmental conditions and/or management objectives consistent with Wyoming's *Standards for Healthy Rangelands*. Adjustments would be analyzed as separate alternatives in the original NEPA document prepared for the project and would be compared to the baseline alternative providing for two complete growing seasons of rest. Site-specific variables, such as project objectives, precipitation, soils, and/or plant communities, would be discussed.

Chemical treatments would consist of applying approved chemicals to meet plan objectives. Before chemicals are applied, BLM would comply with Department of the Interior regulations. All chemical applications would be preceded by an approved pesticide use proposal (PUP) and appropriate NEPA review. All applications would be carried out in compliance with label directions and the pesticide laws for Wyoming.

Permanent roads or vehicle routes (utilizing ground-disturbing methods such as blading) to new treatment sites or portions of treatment areas would be constructed only if necessary access does not exist or would not be gained by other project design features. Proposed vegetation treatments that would involve surface disturbance would be inventoried for archeological features that may be affected by the treatment. Any

identified archeological resource that would be adversely affected by the proposed treatment operation would be avoided or mitigated.

Proposed treatments would be inventoried for plants and animals that are Special Status Species. Treatments that would result in adverse impacts to BLM sensitive species would have mitigation measures incorporated into the project design features.

No action would be taken by BLM that would jeopardize the continued existence of any federally listed threatened, endangered, or candidate plant and animal species. BLM would also comply with any state laws applying to animal or plant species identified by the state as being threatened or endangered (in addition to the federally listed species).

Design of Vegetation Treatments

Prescribed Fire Treatment Guidelines

Prescribed burning involves the use of fire under a predetermined set of conditions to change the character of the vegetative community. This technique takes advantage of a variety of parameters, including the relative fire tolerance and expected response of target and desired plant species, fire behavior characteristics, pretreatment and post-treatment grazing management, and climatic patterns, to manipulate vegetation toward management objectives and goals. Prescribed burning would be useful in stratifying the overall age and structural class of vegetation, reducing fuel loads overall, inserting vegetational fuel breaks, improving watershed conditions within the project area and/or throughout a larger management block, and removing a dominant fire-sensitive overstory species, such as big sagebrush, thereby opening up the community to the natural response of fire-tolerant species. For more information on how BLM deals with prescribed fire in sagebrush, see Wyoming Guidelines for Managing Sagebrush Communities with Emphasis on Fire Management.

There are both direct and indirect impacts to vegetation from prescribed burns. These impacts center around first- and second-order fire effects (the obvious removal of vegetation [woody species and herbaceous cover] due to the fire, and recovery of certain vegetative species after fire) and the tertiary responses that are expected to occur to both riparian areas and uplands as a result of changes in ungulate grazing patterns expected after treatment. Depending on the type of vegetation targeted, the season and timing of the treatment, and the method of implementation, varying amounts of vegetation within the project area are removed by the treatment. Removal can range from virtually complete, in the case of light herbaceous vegetation, to limited scorching in the case of heavy live fuels where varying degrees of "thinning" are desired. These same factors, as well as additional environmental parameters, influence what, where, and how much vegetation reestablishes after treatment, and what period of time would occur before the vegetation in the treatment unit returns to pretreatment conditions. Although the immediate effects of a prescribed burn are to reduce ground cover, wildlife habitat, and livestock forage, generally the long-term effects to vegetation include increased productivity, palatability, and species diversity (including type, amounts, and age classes).

Usually spring season prescribed burns are desirable when a lower ratio of burned/unburned vegetation and more of a broken mosaic pattern are preferred, such as treatments proposed in stands of critical seasonal wildlife habitat. Spring season prescribed burns would also be desirable to mitigate operational restrictions, such as the need for remaining snowbanks at higher elevations to control the perimeter of the project. Because of predominant climatic conditions within the RMPPA, spring cool season prescribed burns are designed with a much broader latitude of prescription parameters to achieve desired objectives but, because of the unpredictability of spring weather, the actual implementation window is usually a much shorter time period.

Late summer and fall season prescribed burns are usually undertaken in the RMPPA when objectives center around the removal of a larger amount and/or proportion of the target vegetation, or the treatment involves vegetation (such as aspen stands) that would most likely be untreatable during cooler and wetter periods. Because of more extreme environmental conditions during the late summer and early fall, there is less room for error when conducting and controlling these burn projects; therefore, more constrictive prescription parameters are usually developed for these projects. The weather and environmental conditions are usually more stable and constant during the late summer/early fall season in the RMPPA, allowing for much wider operational periods than are found during the spring. Fall treatments usually require much more stringent control and holding measures than do those in the spring; in many cases, they use artificial control lines and larger implementation crews. Constraints to implementation for fall season prescribed burns usually center on other land use activities (which tend to increase through the summer) and the lack of operational assets (as seasonal wildland fires consume resources, and personnel and equipment dwindle) rather than environmental restraints.

On a relatively limited basis, the RMPPA would engage in prescribed burn treatments that are independent of seasonality. These include the burning of slash piles from logging operations and/or mechanical treatment activities, usually prepared throughout the year (depending on accessibility) and implemented in the winter (when surrounded by snow), and also include broadcast burns in vegetation, where treatment objectives are independent of fire intensity. Broadcast burns take place throughout the year and mainly are dependent on operational resource availability.

Reseeding would be a viable technique to establish a more desirable plant community following treatment; however, in most cases, the techniques used and sites chosen would be those that lend themselves to natural regeneration wherever possible.

Unplanned wildland fires that occur in areas with an approved prescribed fire proposal and burn plan, including an approved Finding of No Significant Impact Decision Record (FONSI/DR), would be allowed to burn as long as they remain within the prescriptions and meet land use objectives.

Each alternative has identified the number of acres suitable for prescribed fire to achieve management objectives. Development of allotment management plans (AMP) and other activity plans would further refine the acreage values according to livestock grazing, wildlife, and other resource objectives. Acreages of prescribed burns may increase or decrease on certain allotments depending on rangeland management needs as addressed in AMPs and other activity plans.

Chemical and Biological Treatment Guidelines

Chemical treatments involve the use of ground or aerially applied herbicides on target species to reduce their competitive effect on more desirable species. Many classes of herbicides exist, and all vary in action, selectivity, and persistence. However, relatively few compounds are approved for use in broadcast-scale vegetation treatments on public lands. These compounds are usually selective for broadleaf vegetation, leaving only grasses, tolerant forbs, and shrub species after treatment. Chemical treatment and applications would be used only where control would be exercised to prevent unwanted loss of desirable flora or fauna and to prevent transportation of chemicals to other areas by water or air movement. Specific methods of application would be used for the control of noxious and invasive weeds, and for the manipulation of vegetation stands, to achieve management objectives. Methods of chemical treatment of vegetation near Special Status plant populations would be determined by BLM.

Noxious and invasive weeds would be treated in accordance with the Rawlins Field Office (RFO) Biological Noxious Weed Control Environmental Assessment (EA) (WY-037-EA6-123), Chemical Noxious Weed Control and Commercial Site Vegetation Control EA (WY-037-EA6-122), and Vegetation

Treatment on BLM Lands in Thirteen Western States (USDI, BLM 1991). The grantee or lessee would be responsible for the control of all noxious and invasive weed infestations on project disturbed areas and native areas infested as a direct result of the project.

Aerial application of chemicals would not be allowed within ¼ mile of Special Status plant locations (Appendix 14). An unsprayed buffer zone of 100 feet would be maintained near live or still water. Aerial spraying in riparian areas would not be allowed without prior approval of the Authorized Officer.

All chemical treatment sites for noxious and invasive weeds on rangelands would be reevaluated to ascertain the effectiveness of the treatment program. If retreatment is necessary, county weed and pest supervisors, in cooperation with the BLM RFO, would develop a retreatment program. All chemical treatment sites for noxious and invasive weeds on leases and rights-of-way (ROW) would be reevaluated by the lease/ROW holders or their contractor and the BLM Authorized Officer to ascertain the effectiveness of the treatment program.

Vehicle-mounted boom sprayers and hand sprayers would be used in nonriparian zones. Near water, a boom sprayer would be used only where feasible.

BLM would consider the invasion of noxious and invasive weeds in the design and implementation of grazing systems. Chemical treatment would minimize loss of desirable flora and fauna and avoid transportation of the chemicals offsite.

Biological treatment (insects, grazing animals) would be considered for weakening and limiting reproduction of target vegetation in critical riparian areas or areas with sensitive plants and animals, where application of chemicals or the use of fire is not feasible or desirable. Any insects or grazing animals used for vegetation treatment will have been carefully tested for host specificity, thereby reducing or eliminating possible adverse effects on nontarget vegetation. In addition, the use of biological treatments would be evaluated for compatibility with other multiple use objectives for the management area.

Mechanical Treatment Guidelines

As with prescribed fire and chemical or biological vegetation treatment, mechanical vegetation treatment will be considered for vegetation throughout the RMPPA to alter existing vegetation.

Mechanical treatments involve the use of mechanized equipment and/or some forms of manual labor to remove target vegetation or to consume the entire community and leave a suitable seedbed. Techniques and implements are highly variable, but all share the disadvantage of high cost. Mechanical treatment procedures range from use of machinery to remove and mulch large, coarse vegetation material (such as juniper, aspen, or heavy brush) to the use of chainsaws to remove noncommercial stands of overstory trees either partially (where thinning of target vegetation is desired) or completely by removing the target species from the project area in a stand replacement-type project. Mechanical treatment also includes mowing weedy species to prevent seed production. Small-scaled types of mechanical treatments, such as thinning target vegetation by means of chainsaw, usually require some type of follow-up treatment in the area to remove debris left from the operations. Follow-up treatments include stacking and removing commercial or otherwise usable materials, piling and subsequently burning slash materials, or broadcast burning of material on the ground to remove it from a desired seedbed. In addition, the use of agricultural mechanical equipment, such as towed brush-hog type machinery or plows, would be employed to treat suitable vegetation, where topography and finances allow.

An additional use of mechanical vegetation treatment centers around preparation for other treatments, primarily prescribed burning. Use of brush-hog or brush-beating equipment; tractors with plows; crews with chainsaws removing high, above-ground fuels; or crews digging control lines to mineral soil by hand are employed on a regular basis to make control of prescribed burns practical during the season of the project. These methods can be used to provide control lines independent of other operations or to provide a baseline from which “black-line,” or control lines of burned vegetation, can be produced. When coupled with other treatment projects, these actions would involve site-specific environmental analysis and coordination with affected interests, completed during the NEPA analysis of the parent improvement project.

Grazing Management Prescriptions

Rangelands in the RMPPA are open to grazing by domestic livestock as per the Taylor Grazing Act, and therefore removal of portions of rangeland vegetation by grazing ungulates can be used as a vegetation management tool. Through AMPs, cooperative management plans, grazing agreements, or the adjustment of authorized grazing use in an allotment the type, timing, season, and duration of grazing use is managed. Primary tools center on managing livestock use on desirable rangeland species during their primary growth period. Summer cattle use (the predominant grazing use within the RMPPA) is the primary candidate for managed use patterns, as summer use tends to concentrate vegetation removal both during and after the growth stages of most forage species. Annual rotation, deferred rotation, rest rotation, split season, and dormant season grazing schedules remove pressure on the plants during at least a portion of their growth stage, and provide for uninterrupted growth and/or recovery periods.

The type of livestock permitted on specific rangelands can also be utilized to concentrate use on target species or, alternately, to remove all or a portion of grazing pressure from desirable species, depending on management objectives. Sheep use during the fall and winter, although including a significant portion of dormant herbaceous forage (when available), also includes a significant amount of rougher, woody, browse species, significantly more so than would be found with cattle use during the same period or with sheep use during other parts of the year. The use of sheep or goats during the early spring period, when target vegetation species are beginning to green up, can be utilized to increase the grazing pressure on certain weedy species, similar to the use of biological weed treatments. Such grazing treatments would be short-term and used on an annual basis, so as to pressure target species while leaving desirable species intact.

The following BMPs can be used to manage vegetation with livestock grazing. Some of these BMPs address grazing management directly, and others address associated activities including range improvements.

Consideration must be given to season of use, soil type, precipitation, rangeland condition, stocking rates, type of livestock, plant growth rates, and range site potential.

Some BMPs used for livestock grazing—

- Manage livestock use of plant communities so that plant cover and desired community composition are maintained and erosion and sedimentation are not accelerated above acceptable levels
- Maintain or increase plant cover, including residue, which should in turn slow down or reduce runoff and increase water infiltration
- Adjust livestock stocking rates, distribution, timing and duration, kind and class to improve vegetation health and soil cover

- Develop additional water sources to improve distribution of livestock and control water source availability to move use in or out of specific areas.

Locate salt/mineral and supplemental feeding facilities in areas to increase use from livestock. Hoof action increases vegetation disturbance and accelerates the mineral cycle, thereby improving long-term vegetation health.

Plantings of Vegetation

Live native vegetation common to a project site would be planted, usually in relatively smaller-scale projects. This type of treatment is utilized to stabilize soils and watersheds, particularly along stream banks or within lentic-type water systems. In many cases this type of treatment is applied to smaller-scale riparian area improvement projects, usually on sites that previously contained the target vegetation, which for one reason or another currently lack it. Riparian woody and grass-like species are procured from adjacent sites or from an outside source, transported to the specific project site, and planted by hand or with machinery. Subsequently the plantings are “encouraged” by allowing them to proliferate, free of season-long grazing pressure by livestock, wild horses, or wildlife. This can be accomplished through the use of exclosures to keep selected animals from the project; by utilizing season-long, rotational, shorter-duration, and/or seasonal grazing patterns with permitted livestock; or placing the plantings in less accessible sites.

When coupled with rangeland improvement projects (such as the construction of a dam or the development of a spring), these actions would be examined on a case-by-case basis in relation to multiple use objectives and would involve site-specific environmental analysis and coordination with affected interests, in most cases completed during the NEPA analysis of the parent improvement project.

Seedings of Vegetation

Used on a relatively limited basis within the RMPPA, native vegetation can be established (or reestablished) from seed in a variety of sites and situations. Usually employed to more quickly revegetate upland sites, this technique can be utilized on disturbed sites where vegetation has been mechanically removed, including reclamation projects such as well pads, pipelines, roads, and abandoned reservoirs, or in instances where vegetation has been lost as a result of a natural event, such as a wildland fire or flood. In addition, vegetation treatment projects, including prescribed fire, chemical treatments, and mechanical vegetation removal, can include reseeding of native upland plants following implementation, depending on a variety of factors (including environmental parameters, project objectives, or the nature/severity of the treatment). In most cases where more desirable vegetation is sought on a large-scale basis (such as watershed or sub-basin), other vegetation manipulation methods, described above, are the primary and most practical choice.

Seeding of upland vegetation can be accomplished through a variety of methods, including application by fixed- or rotary-winged aircraft, all-terrain vehicles, towed agricultural equipment (such as a rangeland drill), or manual labor. The method of application is totally site- and project-dependent, influenced by cost, terrain, topography, land use and/or political restrictions, and management objectives.

All the previously described vegetation manipulation techniques can be used to prepare a seedbed suitable for artificial reseeding. Where needed, reseeding is a viable technique to establish a more desirable plant community. However, seed and application costs can be high and are sometimes difficult to prove cost-effective. As noted previously in the prescribed fire section, BLM in the RMPPA strives to design vegetation treatments that will not require reseeding of native vegetation. However, reseeding can be a viable alternative in specific situations, depending on management and/or project objectives. Prescribed

fire projects can be useful in preparing a seedbed for artificial seeding, although the nature of the project and the type of burn utilized will influence the need or practicality of subsequent seeding operations. Although chemical treatments can have less total initial impact to the project site than burning or mechanical treatments, the seedbed resulting from a chemical treatment is usually not as suitable for reseeding because of the amount of standing litter. Mechanical treatments, especially those resulting in a high degree of surface disturbance, such as chaining or plowing, usually produce a highly receptive seedbed. Manually applied mechanical treatments, such as thinning or stand-replacing projects, can require some type of intermediate treatment, such as burning of slash piles prior to applying seed mixtures.

In many cases the most economical and feasible seeding mixtures (i.e., those with the most probability of success) involve perennial native grasses and forbs. On special habitat such as mule deer crucial winter range, where disturbance has occurred and reclamation is necessary, or where upland seedings are proposed for specific management objectives, the mixtures could include a variety of high-quality shrub seedlings, such as winterfat, shadscale, four-wing saltbush and, in certain instances, mountain mahogany and antelope bitterbrush, to complement the usual grass mixture. Shrub mixtures are usually much more expensive, and the success of establishment can be variable—highly dependent on the condition of the seedbed. Exclusion of wild horses and livestock and possible reseeding operations may be required in severely unstable watersheds, although the large scale and resulting high expense of this type of management usually makes it prohibitive. Because of terrain irregularities and topographical features, vegetation treatments are usually irregular in shape, providing for edge effect, cover, and visual aesthetics.

As with other treatment methods, upland seedings would be examined on a case-by-case basis in relation to multiple use objectives and would involve site-specific environmental analysis and coordination with affected interests. In the cases of seeding projects coupled with other projects, including reclamation or rehabilitation projects, the examination is completed during NEPA analysis of the parent development.

Design of Range Improvements

All range improvements will be designed and constructed in a manner to minimize environmental impacts while maximizing function and cost-effectiveness. Prior to the installation of any range improvements, an environmental analysis will be prepared. Whenever possible, water will be provided to benefit the seasonal needs for wildlife.

Springs and Seeps

Spring and seep water sources are usually developed by collecting the water using a perforated pipe and/or head box, diverting the water into a drinking trough. The source is usually fenced for protection of the soils and the vegetation around it. During most of the year, spring and seep sources run freely (not through a trough) and maintain the riparian system. When water is run to a trough, the overflow water is piped back to the original drainage course.

Troughs

Troughs are an integral part of many water developments. They are used in conjunction with spring and seeps, wells, pipelines, and offsite waters below reservoirs. They come in various shapes and sizes; however, the most common styles include large tires; Powder River troughs; fiberglass; aluminum; and concrete-bottom, metal-sided tanks. All troughs require some type of escape route for small birds and mammals, with a wire/concrete ramp or rock pile most commonly used. The overflow water would be piped back to the original drainage course.

Wells

Wells are usually drilled in areas where other water sources are unavailable to provide a reliable water source for livestock and wildlife. Power sources for pumps may include generators, windmills, solar panels, or electrical hookups to power lines. The facility could be designed with a water storage tank at the well or at a location where pipelines would gravity-feed water to other sites. Drinking troughs may be installed near the well and/or at various locations from a pipeline. Well sites will be selected based on geologic well site investigations.

Water Pipelines

Pipelines consist of plastic—usually polyethylene—or steel pipe that is buried by mechanical pipe-laying implements or laid on the soil surface. Pipelines designed for spring through fall use are usually placed 12 to 18 inches below the surface, as compared to winter pipelines that are 5–6 feet deep. Pipelines originate at creeks, wells, or spring/seep sources and are used to distribute water to otherwise nonserviced areas. Drinking troughs and, in some cases, a storage tank, are situated along the pipeline.

Reservoirs

Reservoirs are constructed across drainages by building a dike to store water, with an overflow pipe and spillway to pass excess streamflow or high-flow events. Pit-style reservoirs are constructed on small side drainages and basins without a pipe, where the spillway directs excess water into a neighboring draw or gentle terrain. The impoundments created are designed to catch temporary runoff or permanent streamflow to provide a more reliable source of water for livestock and wildlife. Design requirements are determined mainly by the nature and amount of source water. Where there are opportunities to create reservoirs of sufficient size and depth to support fisheries, more specific livestock management may occur, including fencing off the reservoir and providing offsite watering facilities (troughs).

Fences

Fences are constructed to provide livestock management boundaries. They provide interior pastures or boundaries for grazing allotments. Because of different management considerations, fence design is highly variable (BLM Manual Handbook 1741-1, Fencing). Wire may be smooth, barbed, mesh, or a combination, depending on the type of project and/or livestock species involved. Enclosure fences may be built to restrict livestock (and, in some cases, wildlife) access to sensitive areas. Wooden braces are usually spaced 1/4 to 1/2 miles apart, or closer if necessary. Line posts may be steel, wood, or fiberglass, with spacing based on the fence type, topography, and resource objectives. Electric fences may also be used in some instances. Because of the potential for impact to wildlife movement, portions of historic woven wire fences are identified for modification.

Cattleguards

Cattleguards will be installed where fences cross heavily traveled roads or in situations where opened gates would severely compromise management. Cattleguards are generally 8 feet wide, and vary in length depending on traffic needs.

Instream Structures

Instream structures are primarily steel sheet-piling, gabions, or check dams of rock, logs, or concrete and steel placed in streams and ephemeral draws to maintain water tables, slow water flow, and reduce erosion.

FOREST MANAGEMENT

Forestry Program

Overview

This appendix was developed to supplement the discussion of forestry in chapters 1 through 4 by providing more information about forest resources and program within the RMPPA.

The forestry program within the RMPPA is directed at managing the forested lands in a healthy and productive manner. Forest management activities include timber sales and harvests, site preparation for tree regeneration, forest stand improvement through commercial and pre-commercial thinnings, forest inventory surveys, tree planting, and forest health improvements through biomass removal, hazardous fire fuels reductions, and close observation of insect and disease problem areas. Table A19-1 and Table A19-2 provide information on the major tree species and acres of forest type in the RMPPA.

Table A19-1. Major Tree Species

Common Name	Scientific Name
Lodgepole Pine	<i>Pinus contorta</i> , Dougl.
Engelmann Spruce	<i>Picea engelmannii</i> , Parry
Subalpine Fir	<i>Abies lasiocarpa</i> , (Hook.) Nutt.
Ponderosa Pine	<i>Pinus ponderosa</i> , Laws.
Douglas Fir	<i>Pseudotsuga menziesii</i> , var. <i>glauca</i> , (Beissn.) Franco
Quaking Aspen	<i>Populus tremuloides</i> , Michx.
Limber Pine	<i>Pinus flexilis</i> , James
Rocky Mountain Juniper	<i>Juniperus scopulorum</i> , Sarg.

Table A19-2. Current Estimation of Forest Type Acres Within the RMPPA

Forest Types	Acres
Lodgepole Pine	43,164 (includes 14,651 acres in Ferris Mtn WSA)
(All) Fir-spruce	663
Ponderosa Pine	16,539
Aspen	28,642
Woodland (P-J and Limber Pine)	107,926
Total	196,934

Based on 2000–2005 GAP Data

Forest Health Management

Forest stand communities will be managed to restore, maintain, or enhance stand community health, composition, and diversity (considering density, basal area, canopy cover, age class, stand health and understory) through forest management practices and to provide for late successional vegetation, but not as the dominant forest landscape feature, while providing for multiple use of BLM-administered lands. Forest stand communities will also be managed for a healthy mix of natural successional stages that incorporate diverse structure and composition into each forest stand type. All forest communities within the RMPPA (196,934 acres) will be managed in accordance with Wyoming Standards for Healthy Rangelands Management (1997), the Healthy Forest Initiative, and the Healthy Forest Restoration Act of 2003.

Management of commercial forest communities (28,513 acres) will be for production and harvest of wood products (both minor and commercial; e.g., saw timber, post and poles, firewood, Christmas trees, wildlings/transplants) and to improve opportunities to harvest forest products while providing for other forest values and uses. In addition, 1,000-hour fire fuels overloading hazards and risks within forest stand communities will be managed by implementing both stewardship and hazardous fire fuels reduction projects to reduce fuel loading.

Forest stands will be managed to supply forest products to the public as a by-product with forest health, landscape restoration, and reduction of forest fuels objectives. Up to 28,513 acres of forestlands, of which 6,700 acres are areas of steep slope and riparian buffer zones, and 3,000 acres of immature stands would be available for forest management actions to improve forest stand or ecosystem health.

Forestlands and woodlands within WSA areas (67,720 acres) would be reserve managed to meet wilderness characteristics and healthy forest landscape objectives in accordance with management plans and IMP.

Old growth management areas, and the connectivity of the old growth area, would be maintained as appropriate within forestlands and woodlands.

Forest stand will also be managed to provide a sustainable supply of forest products (both minor and commercial) to the public upon public demand.

Forestlands and woodlands outside WSA areas (85,003 acres) would be managed to meet healthy forest landscape objectives in accordance with the Healthy Forest Initiative and Healthy Forest Restoration Act of 2003 as well as all other state and federal guidance.

An average of 75 to 100 acres of forestland “forestland ecosystem management areas” and 75 to 100 acres of woodland “woodland ecosystem management areas” would be treated annually by mechanical methods (thinnings [commercial and pre-commercial], stewardship/fuels reduction projects, timber harvests [select, partial, clear cut, etc.]) or prescribed fire to reduce stocking levels and structure/composition to more historical conditions. These areas would be managed with restrictive management prescriptions for wildlife management guidelines.

Approximately 28,513 acres of forestland would be actively managed and called “forest ecosystem management areas,” with an annual allowable probable sale quantity of 900 CCF (650 MBF).

Approximately 67,720 acres of forestland within WSA areas within the RMPPA would be managed by prescribed fire or wildland fire used as a tool to simulate natural alteration of vegetation to meet wilderness and healthy forest landscape objectives. No mechanical and/or surface disturbing activities

would be prescribed. No forest products would be removed from this area. The forestlands within the WSA would be called “reserved forest ecosystem management areas.”

Approximately 85,003 acres of woodland (aspen, Ponderosa pine, limber pine, juniper, and other woodland species) would be managed as “woodland ecosystem management areas.” Included within these woodland acres are Ponderosa pine forest stands located on BLM-administered lands in the Pedro Mountain and Laramie Peaks area. These areas (scattered woodland and forested areas with very limited public access due to land ownership) would be managed with restrictive management prescriptions for wildlife and to meet healthy forest landscape objectives in accordance with the Healthy Forest Initiative and Healthy Forest Restoration Act of 2003, and enhanced for multiple use purposes. No specified annual sale quantity would be identified within these areas.

Approximately 12,698 acres of other isolated scattered pockets of forest and woodlands located on BLM-administered lands within the resource area would have minimal management due to lack of legal public access.

Old growth forest areas would be retained, and other forested areas may be restored to old growth conditions, at appropriate locations and distribution levels as evaluations occur using an adaptive management approach. Old growth management areas would include coniferous trees greater than 150 years old and aspen trees greater than 100 years old, in association with various old growth forest characteristics. Pre-settlement old growth forest characteristics would be identified for the various forest types. Connectivity of existing or potential old growth areas would be adopted whenever feasible.

SILVICULTURAL PRACTICES

Silvicultural practices are on-the-ground activities that are used to influence the establishment and/or the growth of forest stands. The major silvicultural practices used in the RMPPA are described in the following sections and the applicability and use of these practices are explained.

Regeneration

Regeneration refers to the reforestation process, in which trees in an area are reestablished. The term also can refer to the tree seedlings that become established in the area.

In areas where the existing tree cover has been totally or partially removed by natural or manmade causes, natural or artificial regeneration may be used. In natural regeneration, the area is allowed to reforest itself through the use of seeds left on the site, seeds blown into the site from adjacent forests, or a process called root suckering. Natural regeneration requires proper seedbed preparation, a good seed crop, and cooperating weather. The majority of forest tree species common to the RMPPA are more acceptable of this method of regeneration.

Artificial regeneration is carried out by the forester, who places seeds on or in the ground or plants tree seedlings. Artificial regeneration can be used to reestablish tree growth to an area in a shorter time, to convert a site from one tree species to another, or to provide a means of regeneration if natural regeneration fails. On commercial timber stands, after a timber harvest, artificial regeneration can be used to supplement natural regeneration to achieve a desired stocking level or to improve the genetic stock in an area (usually economically unfeasible for the RMPPA).

Stand Development

The stand development period refers to the time from which the forest stand was established (regeneration) to the time the forest stand is harvested or dies from natural progression. Silvicultural practices are performed during this period to improve a forest stand's health and growth, to help reduce insect and disease infestations, or to achieve other management objectives if the area is being managed for multiple uses. Common stand development activities are pre-commercial and commercial thinning.

Thinning is a procedure used to reduce the number of trees per acre so that stagnation of growth is prevented and the overall stand health and growth is improved. This activity leaves a specified number of trees per acre at a desirable spacing. Thinning also can be used to help slow the spread of dwarf mistletoe as well as help slow the spread of mountain pine beetle outbreaks.

Pre-commercial thinning is used when a forest stand is in need of thinning at an immature age (from seedling to between 8 to 10 years of age) and little merchantable product can be attained. In such cases, a forest stand may be pre-commercially thinned through the public sale of Christmas trees (only during December) or, as in most cases, the BLM will have the thinning done in-house by its BLM fire fuels crew or by hire of a professional contractor. In pre-commercial thinning, 10 to 15 ft spacing is left between stand trees to allow for maximum growth production.

Commercial thinning is used when a forest stand has reached a DBH (diameter at breast height) average of 5 to 6 inches and an average height of 25 to 30 feet or a merchantable post and pole size. In such cases, a forest stand may be commercially thinned by the public sale of post and poles or, as in most cases, the BLM will sell the materials to a willing individual buyer from the public or professional contractor through a post and pole sale. In commercial thinning, a 15 to 20 feet spacing is left between standing trees to allow for maximum growth production.

Table A19-3 shows the change in age-class distribution of lodgepole pine over the next 100 years. As shown in the table, an improvement in age-class distribution would occur.

Table A19-3. Long-Term (100 Years) Age-Class Redistribution of Lodgepole Pine Under Current Management

Age Class (Years)	Present Situation (%)	Long-Term Change (%)	Ideal Age-Class Distribution (%)
0-10	6	8	10
10-40	17	24	30
40-70	16	24	30
70 or more	60	44	30

Source: Medicine Bow-Divide (Great Divide Resource Area) EIS, 1988 (with the present situation percentage and updated to account for changes occurring during the past 15 years)

Harvesting/Treatment Method

Several methods of harvesting/treatments are use in the RMPPA.

Stewardship Projects/Contracting

Stewardship contracting is a new authority for the BLM, contained in the 2003 Appropriations Act (P.L. 108-7). Stewardship involves caring for the public lands through broad-based public and community involvement. The projects and/or treatments would be designed to achieve ecological restoration and maintenance objectives that may include the capture of some value of forest or rangeland material that is created as a part of the project. This material would offset the cost to taxpayers of the restoration project and should provide opportunities for local economic development in the fields of biomass for energy and alternative wood products.

Ultimately, these projects and/or treatments will make forests and rangelands more resilient to natural disturbances, such as wind, flood, fire, insects, and disease.

Stewardship contracting is intended to achieve key land-management goals that improve, maintain, or restore forest or rangeland health; restore or maintain water quality; improve fish and wildlife habitat; reestablish native plant species and increase their resilience to insects and disease; and reduce hazardous fuels that pose risks to communities and ecosystem values through an open, collaborative process. The legislation also requires that projects meet local and rural community needs in addition to the land management goals.

Clear-Cutting

Clear-cutting is a harvesting and/or project treatment method in which all the trees in a designated area are cut and removed. This method is used in areas that require complete over-story removal due to damage from insects, disease, wind (blow-down), or poor stand quality and/or health or to meet the regeneration requirements of a particular tree species. Regeneration of clear-cut areas is done by natural or artificial means.

Tree Selection or Select Cut

Tree selection or select cut is a harvesting and/or project treatment method in which trees within a particular area or stand are individually marked, cut, and removed. The selection can be based on a number of stand criteria, such as stand overstocking, stand health, tree size, tree species, etc. This method yields the least environmental impacts and relies on natural regeneration.

Group Selection or Group Select Cut

Group selection or group select cut is a harvesting and/or project treatment method in which trees within a particular area or stand are cut and removed in small groups. The results yield small openings no more than 3 to 6 acres in size. Regeneration is usually accomplished through natural regeneration.

Shelter-wood Cut

Shelter-wood (reserve or cut tree selection) is a harvesting and/or project treatment method in which the older mature trees (the shelter-wood) are removed in two or more successive cuttings between 10 and 20 years apart. This method provides a source of seed protection for the regeneration. Though this method

does provide shelter protection for the seed in a treatment area, it is a poor use of control for dwarf mistletoe. This method usually relies on natural regeneration.

Seed Tree Cut

Seed tree (reserve tree selection) is a harvesting and/or project treatment method in which all trees scheduled to be removed are done so in one harvest, leaving a small number of seed-bearing trees, usually eight to ten trees per acre. The seed trees will later be harvested from the sight after regeneration is established. This harvesting and/or project treatment method is inapplicable in areas of high winds because the majority of the seed trees left will blow over within several years. This method relies on natural regeneration.

Sanitation Cut

A sanitation cut is a harvesting and/or project treatment method used to remove dead, damaged, or susceptible trees to prevent the outbreak or spread of insect, disease, or catastrophic wildland fire events. After a sanitation cut, if regeneration is desired, it can be achieved through a natural process or artificial means.

Salvage Cut

A salvage cut is a harvesting and/or project treatment method used to remove dead, damaged, or susceptible trees after a natural event, such as a wind blow-down and/or the outbreak or infestation of insect or disease, to reduce hazardous fire fuel loading, lessening the chances and/or intensity of catastrophic wildland fire events. After a salvage cut, if regeneration is desired, it can be achieved through natural processes or artificial means.

Slash Disposal

Slash is the tops, limbs, and other unusable portions of trees left in an area after harvesting. Two methods of slash treatment are described in the following section.

Lop and Scatter

Lop and scatter is a slash treatment method in which the tops and large branches of trees are cut so that the slash will be at a predetermined height off of the ground. This method is used in areas where the amount of slash is light. This method allows for a speedy natural decomposition process.

Pile and Burn

The pile and burn method of slash treatment is used in areas where tree species need an exposed mineral soil seedbed for successful seed germination. The dominant tree species within the RMPPA, lodgepole pine, needs such a seedbed. After harvesting, the slash is pushed up into a pile, usually with a bulldozer. This process exposes the mineral soil seedbed needed for successful seed germination of lodgepole pine. Not all the slash is piled. About 30 percent is left scattered over the area as protection for newly regenerated seedlings. The slash piles are later burned in the winter when a protective layer of snow allows for safe burning.

The pile and burn method is also used to dispose of undesirable or non-merchantable woody materials collected in forest health projects, such as stewardship projects and hazardous fire fuels reduction

projects. It is also used to dispose of slash from pre-commercial and commercial thinnings. These slash piles are also burned in the winter when a protective layer of snow allows for safe burning.

Broadcast Burn

Broadcast burning is a form of slash disposal or treatment where a ground fire is used to burn the slash that is left after harvesting. The fire removes the top duff layer, exposing the mineral soil. This increases the rate of nutrient cycling. Broadcast burning may destroy the seeds onsite if the ground fuel loading is at extreme levels or if the duff layer is too thick, so another seed source must be provided if natural regeneration is desired. Adjacent forest stands may be a good source for these seeds. This method of slash removal is especially helpful in slash removal in aspen stands.

Rollerchopping

The rollerchop method of slash removal involves the use of a large metal drum filled with water and equipped with protruding stubs. The roller is pulled back and forward over the slash by a bulldozer. This exposes mineral soil, preparing the site adequately for lodgepole pine regeneration.

MANAGEMENT DIRECTION FOR FORESTS AND WOODLANDS

Forests and woodlands are categorized as lands available for intensive management of forest products, lands available for restricted management of forest products, lands where forests are managed to enhance other uses, and lands not available for management of forest products. These categories are described in the following section.

Intensive Management

Lands available for intensive management of forest products are areas where forest management is one of many uses, but where other uses or resource values are not emphasized. These lands are managed to achieve a highly productive forest by implementing forest management activities to enhance overall forest health and growth production. Commercial timber activities are concentrated within these areas.

Lands placed under this category are commercial forestlands that have the least amount of conflicts with other resource programs.

Restricted Management

Lands available for restricted management of forest products are lands where other uses or resource values are emphasized and limited forest management activities are allowed. Forest products in the form of timber can be harvested from such lands, but harvesting methods such as clear-cutting are completely restricted.

Lands in this category are lands with steep slopes and riparian areas located within a forested area.

Enhancing Other Uses

Lands where the forests are managed to enhance other uses are areas where forest management is tailored to benefit other identified resource values or uses. Such management practices are used on the woodland areas within the RMPPA, which contain aspen and other noncommercial tree species. Forest management activities, such as the harvesting of small or minor wood products, can be carried out on these lands to a

limited degree. Management activities would be to benefit other resources or to respond to requests from the public, usually for firewood, posts, poles, Christmas trees, and wildlings.

Decadent aspen stands located on these lands may also be manipulated to allow for new vigorous sapling growth to enhance the stand and provide browse for big game.

Not Available for Forest Management Activities

Lands not available for management of forest products are areas of commercial forestland that has been withdrawn from the lands available for forest management activities. Forest management activities have been excluded from such lands because these lands have been determined to have other resource values of importance on which severe impacts would result from forest management activities. These areas include wilderness study areas, historically protected areas, and wild and scenic river areas.

Monitoring

Monitoring of a stand generally begins 1 year after the stand's harvest/treatment. Continued monitoring is made on a scheduled basis during the next 3 to 5 years to make sure that stand's regeneration, or the treatment's desired results, are adequate. Monitoring during the following 20 to 60 years will be done to establish the suitability for pre-commercial and commercial thinning to prepare the stand for possible harvest as a commercial timber product when it reaches maturity.

Monitoring is also done on individual forest stands to observe forest health conditions to help control the spread of insect and disease outbreaks.

STANDARD OPERATING PROCEDURES

Identification of Harvest/Treatment Areas

Specific forest stands are identified for harvesting or treatment on the basis of that particular area's need for management. High-priority areas of harvest and/or treatment are characterized by having mature timber, insect and/or disease infestation issues, growth stagnation conditions, poor forest health conditions, or hazardous fire fuels (1,000-hour fuels) buildup.

Environmental Assessment/Categorical Exclusion

EAs are prepared for all timber sales and/or major forest treatment projects by an interdisciplinary team. Potential adverse impacts on soil, water, air, wildlife, riparian, cultural, visual, socioeconomic, range, and recreation resources are analyzed. The use of temporary roads and the potential harvest/treatment unit are usually determined at this time.

Categorical exclusions (CX) are scaled-down versions of an EA that sometimes can be used in place of an EA for small-scaled treatments, such as fuels reductions, pile/broadcast burning (also accompanied by a burn plan), small thinning projects, etc., that cover all of the major elements listed in an EA but are less time-consuming to prepare. CXs are commonly used for projects with very minimal impact, surface disturbance, and/or other resource concerns.

Project/Treatment Design Features

Project/treatment design features are specific measures developed during the EA/CX stage by the interdisciplinary team to minimize adverse impacts on the environment. The project design will follow all rules, guidance, restrictions, stipulations, closures, mitigations, and/or monitoring within a project area as set forth by other resource concerns, e.g., cultural, wildlife, water, soils, riparian, air, visual, range, recreation, fire/fuels and/or all other resource areas of possible concern. Project/treatment design features may differ slightly on a case-by-case basis, given the location of the project/treatment and/or the other areas of resources involved.

AGE CLASS DISTRIBUTION

The term “age class distribution” is used to describe the condition of the forest. Defined, it is the breakdown of age classes of trees within a forest. Age class distribution is a representation of the individual trees in a forest stand, if the stand is uneven-aged. If the stands are even-aged, it is a representation of individual stands in a forested area.

Even-aged stands occur when the difference in age between the trees forming the main canopy level does not exceed 20 percent of the age of the stand. Uneven-aged stands have a wide variety of ages.

Table A19-4. Structure Class Age and Characteristics

Structure Class/Age	Characteristics
Early Successional 0–5 years	Recently disturbed areas from harvesting or fire; trees just becoming established; mostly grass and forb vegetation.
Seedling 6–15 years	Tree seedlings are established, usually more than 1,500 seedlings per acre; trees less than 5 feet in height.
Sapling 16–50 years	Trees range in size from 1–5” DBH and up to 40 feet in height; preferred pre-commercial thinning time. Trees provide excellent elk hiding cover if tree density is high. Grass and forb vegetation production is greatly diminished; maximum net primary production of wood fiber.
Poletimber 51–80 years	Trees range in size from 5–7” DBH and up to 50 feet in height; approaching maximum wood fiber growth; trees reach commercial product size (for fence posts and corral poles).
Young Saw Timber 81–100 years	Trees more than 7” DBH; stand still growing well, with little mortality. Annual net primary productivity has already peaked, but economic value of stand steadily increasing as trees reach saw timber size. Small litter (needles) decomposition rate has reached the litter accumulation rate.
Mature Saw Timber 101–120 years	Net wood fiber growth declining from previous peak; mortality starting from MPB; site has reached its maximum leaf area index; large diameter downfall starting to accumulate.
Over-Mature Saw Timber 121–150 years	Net wood fiber growth continues to decline; MPB mortality could total over 50 percent of the large trees. Pockets of tree mortality provide opportunity for regeneration, creating a two-storied stand in places. Late successional species (e.g., subalpine fir) becoming more dominant.
Old-Growth >151	Stand starting to acquire old growth structural characteristics (dead trees, fallen logs, etc.). Buildup of fallen trees has increased the fuel loading of the stand, greatly increasing risk of loss from fire. Conversion of stand to a subalpine fir forest type is dependent on site conditions and availability of the fir seed source. A minimum age of 150 years is one “must” criteria used by the United States Forest Service in Region 2 for the old growth lodgepole pine forest type.

Source: SAF Cover Type Data

Table A19-5. Desired Target Mosaic by Forest Vegetation Type

Lodgepole Pine	
Even-Aged Management	
• Early Successional	2.5 %
• Seedling.....	5 %
• Sapling.....	17.5 %
• Poletimber	15 %
• Young Saw Timber	10 %
• Mature Saw Timber	10 %
• Over-Mature Saw Timber	30 %
• Old Growth Forest	20 %
Spruce-Fir	
• Other Successional Stages	10 %
• Old Growth	90 %
Ponderosa Pine	
Uneven-Aged Management	
• Various Successional Stages	80 %
• Old Growth	20 %
Aspen	
Even-Aged Management	
• Early Successional	<1 %
• Seedling.....	5 %
• Sapling.....	15 %
• Poletimber	20 %
• Saw Timber	20 %
• Old Growth	40 %
Woodland	
• Dense (>20% Crown Cover).....	80 %
• Open (<20% Crown Cover)	20 %

Source: SAF Cover Type Data

OLD GROWTH

Definition

“Old-Growth” is defined in *The Dictionary of Forestry* (John A. Helms [ed.] Society of American Foresters. Bethesda, MD. 1998) as—

“The (usually) late successional stage of forest development. Old-growth forests are defined in many ways; generally, structural characteristics used to describe old-growth forests include (a) live trees: number and minimum size of both seral and climax dominants, (b) canopy conditions: commonly including multilayering, (c) snags: minimum number of specific size, and (d) down logs and coarse woody debris: minimum tonnage and number of pieces of specific size.

Old-growth forests generally contain trees that are large for their species and site and sometimes decadent (overmature) with broken tops, often a variety of tree sizes, large snags and logs, and a developed and often patchy understory. Stand age, although a useful indicator of old-growth, is often considered less important than structure because (a) the rate of stand development depends more on environmental factors and stand history than age alone, and (b) dominants are often multi-aged.

Due to large differences in forest types, climate, site quality, and natural disturbance history (e.g. fire, wind, and disease and insect epidemics), old-growth forests vary extensively in tree size, age classes, presence and abundance of structural elements, stability, and presence of understory. The minimum area needed for an old-growth forest to be a functional ecological unit depends on the nature and management of surrounding areas; small areas often do not contain all old-growth elements.”

General Characteristics

A review of the definition suggests that old-growth forests are typically distinguished by the following characteristics:

- Large size trees of specific species
- Wide variation in age classes and stocking levels
- Accumulations of large-size dead standing and fallen trees
- Decadence in the form of broken or deformed tops and boles
- Multiple canopy layers
- Canopy interspaces and under story patchiness.

Old-Growth Descriptions

Because of the imprecision of the definition of old-growth, with its inherent subjectivity, the approach taken in the RMPPA was to develop old-growth descriptions of the major forest cover types found in the RMPPA. Measurable attributes (Table A19-6) are provided for each of these forest cover types and are from Mel S. Mehl, “Old-Growth Descriptions for the Major Forest Cover Types in the Rocky Mountain Region,” in *Old-Growth Forests in the Rocky Mountains and Southwest Conference*. Portal, AZ, March 9–13, 1992.

Old-Growth Management

These above-mentioned descriptions will be used to evaluate areas prior to vegetation treatment to determine old-growth potential in the treatment units as well as the surrounding areas. The Record of Decision for the RMP will establish the target percentage of old-growth in the RMPPA.

Areas determined to have old-growth potential and targeted as future old-growth stands may undergo some management activities (thinnings, prescribed fire, etc.) if those treatments enhance the old-growth objective for the forest stand.

Existence of “Old Growth” Within the RMPPA

Based on the above definitions and criteria, there are no “old-growth forest” areas identified in the commercial forest areas within the RMPPA; however, some areas of “old-growth forest” may exist within identified woodland and/or WSA area within the RMPPA. If “old-growth forests” are present within

woodland and/or WSA areas in the RMPPA, these “old-growth forest” areas will be managed under the same provisions for woodlands and/or WSAs under the chosen management alternative. “Old-growth forest” identification characteristics for forest areas within the region of the RMPPA are as shown below by forest type in Table A19-6.

Table A19-6. Minimum Criteria for Structural Attributes to Determine Old-Growth Forests in the RMPPA

Attribute	Spruce/Fir	Douglas Fir	Lodgepole Pine	Front Range Ponderosa Pine	Aspen	Pinyon-Juniper
Forest Cover Type, Saf Code	206	210	218	237	217	239
Standard Attributes						
Live Trees—Upper Canopy						
DBH/Drc	10	18	10	16	14	12
Trees/Acre	10	10	10	10	20	30
Age	200	200	150	200	100	200
Variation in Diameter	X	X		X	Q	X
Decadence	X	X	X	X	X	X
Multiple Canopy Layers	X	Q	Q		Q	
Dead Trees—Standing						
DBH/Drc	10	10	8	10	10	10
Trees/Acre	2	2	2	2	Q	2
Down						
Pieces/Acre	X	X	X	Q	Q	2
Additional Quality Attributes						
Slow Growing (Main Canopy)	X	X	X	X	X	
Canopy Closure 50% Plus					X	
Canopy Closure 35% Plus						X
Wide Range of Vigor	Q	X		X		
Net Growth Near Zero	X		Q			
Patchiness	X	Q	Q			
Many Stages of Decomposition	X		Q			
Multiple Tree Species			Q		Q	
Distinctive Bark	Q			Q		
Distinctive Crowns			Q	Q		

Attributes with an “X” or a numerical value are considered “must criteria.” Those with a “Q” are quality criteria. The quality attributes are not required for old growth, but provide for higher quality old growth, if present. Any of the “must” criteria in excess of the minimums could also indicate a higher quality of old growth

DEFINING OLD-GROWTH PINYON-JUNIPER WOODLANDS

Definition

Old-growth pinyon-juniper woodlands consist of areas 5 acres or larger where more than 25 percent of the tree canopy cover is made up of trees 150 years or older. Juniper trees older than 150 years may be identified by their physical characteristics, which include a large diameter trunk (often twisted) and lower limbs; rounded or irregular crown; deeply furrowed, reddish stringy bark; broken and dead branches; heart rot; and cavities.

Old-growth pinyon-juniper woodlands, according to the pre-fire exclusion condition, are generally characterized as having uneven-aged structure, with trees less than 150 years of age ranging from 5–25 percent of the total canopy cover. Understory plants consist of shrub, grass, and forb species consistent with the ecological site descriptions.

Management Direction

Activities using Healthy Forest Restoration Act (HFRA) authorities that alter vegetation in the old-growth pinyon-juniper woodlands described in the first paragraph in the above definition will be conducted in a manner that—

- Maintains 80 percent or more of the trees having the physical characteristics of trees 150 years and older contained in the definition on a per-acre basis
- Maintains 5–25 percent canopy cover in trees less than 150 years of age across the full range of age classes currently represented on the site on a per-acre basis
- Maintains the current understory vegetation condition or moves it toward the condition contained in the ecological site description, including plant composition, abundance, and vigor
- Limits the spread of exotic plant species into the site.

APPENDIX 20—OIL AND GAS OPERATIONS

GEOPHYSICAL EXPLORATION

Oil and gas can be discovered by either direct or indirect exploration methods, such as the mapping of rock outcrops, seeps, borehole data, and remote sensing data. In many cases, indirect methods, such as seismic, gravity, and magnetic surveys, are required to delineate subsurface features that may contain oil and gas. Geophysical exploration may provide information that increases the chances of drilling a discovery well and information that may discourage drilling and the associated surface disturbance. More sophisticated geophysical techniques, like three-dimensional (3-D) seismic surveys, may supply enough information to model a reservoir and optimize drilling to prevent excess wells and the associated surface disturbance.

Gravity Surveys

Gravitational prospecting detects micro-variations in gravitational attraction caused by the differences in the density of various types of rock. Gravity data are used to generate anomaly maps from which faults and general structural trends can be interpreted. These surveys are generally not considered definitive because of the many corrections required (e.g., terrain, elevation, latitude) and the poor resolution of complex subsurface structures. The instrument used for gravity surveys is a small portable device called a gravimeter. Generally, measurements are taken at many points along a linear transect, and the gravimeter is transported either by backpack, helicopter, or offroad vehicle. The only surface disturbance associated with gravity prospecting is that caused by a vehicle, if used.

Geomagnetic Surveys

Magnetic prospecting is most commonly used for locating metallic ore bodies, but is used to a limited extent in oil and gas exploration. Magnetic surveys use an instrument called a magnetometer to detect small magnetic anomalies caused by mineral and lithologic variations in the earth's crust. These surveys can detect trends in basement rock and the approximate depth to those basement rocks but, in general, they provide little specific data to aid in petroleum exploration. Many corrections are required to obtain reliable information. The generated maps lack resolution and are considered rudimentary views of subsurface geology. Magnetometers vary greatly in size and complexity and, in general, most magnetic surveys are conducted from the air by suspending a magnetometer under an airplane. Magnetic surveys conducted on the ground are nearly identical to gravity surveys and surface disturbance is minimal to nonexistent.

Seismic Reflection Surveys

Seismic prospecting is the best and most popular indirect method used for locating subsurface structures and stratigraphy that may contain hydrocarbons. Seismic energy (shock waves) is induced into the earth using one of several methods. As these waves travel downward and outward, they encounter various rock strata, each having a different seismic velocity characteristic. As the wave energy encounters the interface between rock layers, where the lower layer is of lower seismic velocity, some of the seismic energy is reflected upward. Sensing devices, commonly called geophones, are placed on the surface to detect these reflections. The geophones are connected to a recording truck that stores the data. The time required for the shock waves to travel from the shot point down to a given reflector and back to the geophone is related to depth, and this value is mapped to give an underground picture of the geologic structure.

There are many methods available today that an explorationist can use to induce the initial seismic energy into the earth. All methods require preliminary surveying and laying of geophones. The thumper and vibrator methods pound or vibrate the earth to create a shock wave. Usually large trucks are used, each equipped with vibrator pads (about 4-foot square). The pads are lowered to the ground, and vibrators on all trucks are triggered electronically from the recording truck. Information is recorded and then the trucks move forward a short distance and the process is repeated. Less than 50 square feet of surface area is required to operate the equipment at each test site. The trucks are equipped with large flotation type tires, which reduce the impact of driving over undisturbed terrain.

The drilling method uses truck-mounted drills that drill small-diameter holes to depths of 100 to 200 feet. Four to 12 holes are drilled per mile of line. Usually, a 50-pound charge of explosives is placed in the hole, covered, and detonated. The detonated explosive sends a shock wave below the earth's surface that is subsequently reflected back to the surface from various subsurface rock layers. In rugged topography, a portable drill is sometimes carried in by helicopter. Charges are placed in the hole as is done in a truck-mounted operation. Another portable technique is to carry the charges in a helicopter and place the charges on wooden sticks, or lath, about 3 feet above the ground. Usually, 10 charges in a line are detonated at once. In remote areas where there is little known subsurface data, a series of short seismic lines may be required to determine the subsurface geology. Subsequently, more extensive seismic lines are arranged obtain the greatest amount of geologic information.

Seismic information can be obtained in two-dimensional (2-D) or 3-D configurations. To obtain 3-D seismic information, the seismic sensors and energy source are located along lines in a grid pattern. This type of survey differs from the more common 2-D surveys because of the large volume of data and the intensive computerization of the data. The results are expensive to obtain but give a more detailed and informative subsurface picture. The orientation and arrangement of the components in 3-D seismic surveys are less tolerant of adjustments to the physical locations of the lines and geophones, but they are also more compact in the area they cover. Although alignment can be fairly critical, spacing of the lines can often be changed to significantly increase the information collected. The depth of the desired geologic information will dictate the spacing of the grid lines, with smaller spacing detailing shallower formations. The 3-D surveys are very expensive and usually conducted after 2-D surveys or drilling has delineated a geologic prospect that will justify the extra cost. Extensive computer processing of the raw data is required to produce a useable seismic section from which geophysicists can interpret structural relationships to depths of 30,000 feet or more. The effective depth of investigation and resolution are determined, to some degree, by which method is used.

A typical drilling seismic operation can use 10 to 15 men operating 5 to 7 trucks. Under normal conditions, 3 to 5 miles of line can be surveyed each day using the explosive method. The vehicles used for a drilling program include several heavy truck-mounted drill rigs, water trucks, a computer recording truck, and several light pickup trucks for the surveyors, shot hole crew, geophone crew permit man, and party chief.

Public roads and existing private roads and vehicle routes are used. Off-highway cross-country travel may be necessary to carry out tasks. Motor graders and/or dozers may be required to provide access to remote areas. Vehicle use for necessary tasks, such as geophysical exploration, including project survey and layout, would be permitted. Concern about unnecessary surface disturbance has caused government and industry to more carefully plan surveys. As a result, earth-moving equipment is now only rarely used in seismic exploration work. Several trips a day are made along a seismograph line; this usually establishes a well-defined two-track vehicle route. The repeated movement back and forth along the line (particularly the light pickup trucks) defines the vehicle route. Spreading vehicles out so that vehicle routes are not straight, and vehicles do not retrace the same route, has in some cases prevented the establishment of new

vehicle routes and has reduced impacts. Drilling water, when needed, is usually obtained from the nearest source.

Each of the foregoing exploration methods has inherent strengths and weaknesses, and explorationists must decide which method is the most practical with regard to surface constraints (such as topography) while still producing useful information. Economics and past information also plays a role in determining the method used. Reconnaissance type surveys of gravity and geomagnetic can be run in areas where little information is available, with the attendant lower costs and less impacts. More expensive and higher impact seismic surveys are run when more detailed information is required.

GEOPHYSICAL MANAGEMENT (PERMITTING PROCESS)

Geophysical operations on and off an oil and gas lease are reviewed by the appropriate federal surface management agency (SMA) (i.e., Bureau of Land Management [BLM], Bureau of Reclamation, or U.S. Forest Service). Good administration and surface protection can only be accomplished through close cooperation between the operator and the affected agency. During a 10-year period (from 1994 through 2003) the Rawlins Resource Management Plan Planning Area (RMPPA) has processed 40 seismic exploration notices or permits (Table A20-1) on public lands. An average of four notices or permits can be expected to be processed in any year.

Table A20-1. Seismic Exploration Permits on Public Lands

Year	Number of Permits Approved
1994	1
1995	1
1996	1
1997	4
1998	5
1999	11
2000	5
2001	3
2002	5
2003	4
TOTAL	40

The responsibilities of the geophysical operator and the field manager are as follows (USDI 1989b):

- **Geophysical Operator**—An operator is required to file with the field manager a “Notice of Intent (NOI) to Conduct Oil and Gas Exploration Operations.” The NOI shall include a map showing the location of the line, all access routes, and ancillary facilities. The party filing the NOI shall be bonded. A copy of the bond or other evidence of satisfactory bonding shall accompany the NOI. For geophysical operation methods involving surface disturbance, a cultural resources survey is also required. A pre-work field conference may be conducted. Earth-moving equipment shall not be used without prior approval. Upon completion of operations, including

required rehabilitation, the operator is required to file a "Notice of Completion of Oil and Gas Exploration Operations."

- **Field Manager**—The field manager shall contact the operator after the NOI is filed and apprise the operator of the practices and procedures to be followed prior to commencing operations on BLM-administered lands. After the operations are completed, as specified by the "Notice of Completion," the field manager shall complete a final inspection and notify the operator if the terms and conditions of the NOI have been met or that additional action is required. Consent to release the bond or termination of liability shall not be granted until the terms and conditions have been met.

State Standards

In Wyoming, the operator is required to register with the Wyoming Oil and Gas Conservation Commission (WOGCC). WOGCC standards for plugging shot holes, personnel safety, and so forth, will be followed as specified in a memorandum of understanding (MOU) between the BLM and the State of Wyoming WOGCC, dated September 13, 1994, BLM MOU WY920-94-09-79. The MOU was entered into by and between the BLM and the WOGCC in accordance with Federal Land Policy and Management Act (FLPMA).

Mitigation

Seasonal restrictions are imposed to reduce conflicts with wildlife, watershed damage, and hunting activity.

The most critical management practice is compliance monitoring during and after seismic activity. Compliance inspections during the operation ensure that stipulations are being followed. Compliance inspections upon completion of work ensure that the lines are clean and the drill holes are properly plugged.

OIL AND GAS LEASING

The Mineral Leasing Act provides that all public lands are open to oil and gas leasing unless a specific order has been issued to close an area. Based on the Federal Onshore Oil and Gas Leasing Reform Act of 1987, all leases must be exposed to competitive lease sales. Lands for which bids are not received at the lease sale will be available for noncompetitive leasing for a period not to exceed 2 years. Competitive sales will be held at least quarterly and by oral auction. Competitive and noncompetitive leases are issued for a term of 10 years or for as long as oil and/or gas are produced. The Federal Government receives yearly rental fees on nonproducing leases. Royalty is received at the rate of 12½ percent of the total saleable production, one half of which is returned to the State of Wyoming.

The Energy Policy and Conservation Act Amendments (EPCA) of 2000, Public Law (PL) 106-469, directed the Secretary of the Interior to conduct an inventory of oil and natural gas resources beneath federal lands. The Act also directed the Department of Interior to identify the extent and nature of any restrictions to resource development. As a result, the Departments of the Interior, Agriculture, and Energy released a report, Scientific Inventory of Onshore Federal Lands' Oil and Gas Resources and Reserves and the Extent and Nature of Restrictions or Impediments to their Development (referred to as the "EPCA Phase II Inventory"), in November 2006.

BLM is integrating the results of the EPCA inventory into its RMPs. The oil and gas resource inventory data are integrated into the RFD scenario that predicts future mineral development within the RMPPA. The restrictions and impediments to mineral resource development would be considered throughout the RMP with the intent to—

- Clearly present mitigation requirements necessary to reduce impacts of oil and gas operations on other resources
- Ensure that such mitigation is either statutorily required or scientifically justifiable and is the least restrictive measure necessary to accomplish the desired level of resource protection. The mitigation requirements would be monitored to determine if more or less restrictive measures might accomplish the same goal.

Oil and gas lease stipulations may be modified or eliminated using the exception, modification, or waiver criteria outlined in this RMP (Appendix 9) or through more site-specific environmental analysis. Those stipulations that are either too restrictive or too lenient to accomplish the desired resource protection would be changed if monitoring or new scientific data justify the change. Clarifying changes may be made to the wording of oil and gas lease stipulations as long as there is no substantial change to the mitigated protection, as justified by new scientific data or monitoring.

Lease stipulations may be attached to each parcel and become part of the lease after sale. Initially, stipulations are attached to a parcel by the state office leasing section from various databases. The parcel list is segregated and sent to the field office that has the majority of the parcel lands in its area. In the field office, the parcel is reviewed by a group of resource and National Environmental Policy Act (NEPA) specialists to ensure that lands are in conformance with the Resource Management Plan (RMP), the stipulations are correct, and that any missing stipulations are included. This completes the process and allows the parcel to be included in a sale package.

The authorized officer has the authority to relocate, control timing, and impose other mitigation measures under Section 6 of the Standard Lease Form, provided appropriate environmental documentation can justify the modification. This authority is invoked when lease stipulations are not attached to the lease or new resources are discovered on a lease. Lease stipulations are conditions of lease issuance that provide protection for other resource values or land uses by establishing authority for delay, site changes, or the denial of operations within the terms of the lease contract. These stipulations adhere to the Uniform Format for Oil and Gas Lease Stipulations prepared by the Rocky Mountain Regional Coordinating Committee in March 1989. The stipulations are specified for each applicable parcel in the Notice of Competitive Oil and Gas Lease Sale and are intended to inform interested parties (potential lessees, operators) that certain activities will be regulated or prohibited unless the operator and the SMA arrive at an acceptable plan for mitigation of anticipated impacts. These stipulations are attached to the whole lease, regardless of whether the protection measure is only be in a specific portion of the lease. Lease stipulations are based on the perceived resource requirements and land uses as specified in NEPA documentation. New science, comprehensive documentation of resource requirements, land pattern interference, and ongoing monitoring of the effectiveness of a stipulation may allow granting of a waiver, exception, or modification to a stipulation. A lease stipulation *waiver* is a permanent exemption to a lease stipulation. An *exception* is a one-time exemption to a lease stipulation and is determined on a case-by-case basis. A *modification* is a change to the provisions of a lease stipulation either temporarily or for the term of the lease.

DRILLING PERMIT PROCESS

A federal lessee or the operator of record is governed by procedures set forth by the Onshore Oil and Gas Order No. 1, "Approval of Operations on Onshore Federal and Indian Oil and Gas Leases," issued under 43 CFR 3164. These procedures cover the full gamut of operations on federal minerals, from initial permitting of the well, to subsequent operations, to final abandonment. In the initial permitting process, the operator selects the location of a proposed drill site. This selection is based on WOGCC spacing requirements, the subsurface geology, the topography, and the avoidance of known protected surface resource values.

Spacing requirements are established by the WOGCC to protect the correlative rights of offsetting mineral owners and efficiently recover the resource. This applies to all mineral ownership, i.e., fee, state, and federal minerals. The spacing requirements are considered to be located at the subsurface point of production. Wells must be drilled within 200 foot of the center of a legal subdivision, such as a quarter section, depending on the spacing assigned to the particular area. A proposed location may be moved beyond the designated tolerance by a spacing exception granted by WOGCC. A spacing exception requires notification of the offsetting mineral lease owners and, if there is a protest, the matter must be presented at a public hearing with full evidence of the need to relocate the well before a decision can be made by WOGCC. The RMPPA has a specified spacing density of 160 acres throughout most of the high and moderate potential areas. The rest of the RMPPA is spaced at 40 acres, which is the standard statewide rule. Forty acres is not a probable future spacing, except in specific instances, because spacing is based on the most efficient recovery of the reserves. The probable maximum subsurface density of wells is 160 acres throughout most of the RMPPA, with certain areas having a subsurface density of 80 acres, based on the currently projected recovery efficiencies and economics. Spacing of 640 acres, or 1,280 acres per well, is not unrealistic in the case of deep, expensive wells that can recover the reserves in an efficient manner. Surface density of wells would be a variable based on the surface resource conflicts, economics of directional drilling, accessibility within the checkerboard (surface locations on fee land to access federal minerals within resource conflict areas), and the subsurface density.

Occasionally, BLM may require that a lessee drill a well on a lease if it is determined that federally owned minerals are being drained by an adjacent well on private or state-owned lands. This may cause conflicts in areas of sensitive surface resources. If the economics are not sufficient to drill a directional well from a location on the federal lease, drainage protection may require compromising the sensitive surface resource after a thorough environmental review.

Permitting

After the operator makes a decision to drill a well, the well, access road, and pipeline can be surveyed and staked without notice to BLM. Cultural resource inventories can also be obtained without notice.

- **Notice of Staking (NOS)**—After the operator makes the decision to drill a well, it must decide whether to submit an NOS or Application for Permit to Drill (APD). The NOS is an abbreviated notice that consists of an NOS form, a staked location map, and sketched site plan. This notice is posted for a 30-day public review and begins the processing time frame for approval of the APD. The NOS triggers the onsite inspection of the well, which determines whether any conflicts with critical resource values are evident and provides the preliminary data to assess what additional items are necessary to complete the APD.
- **Application for Permit to Drill**—The operator can submit a completed APD in lieu of an NOS but, in either case, no surface disturbing activity can be conducted in conjunction with the drilling operations until the APD is approved by the field manager.

If the APD option is used, an APD is submitted to the field manager and a field inspection is held with the operator and any other interested party. The purpose of the onsite field inspection is to evaluate the operator's plan, to assess the situation for possible impacts (surface and subsurface), and to formulate resource protection stipulations. To lessen environmental impacts, a site can be moved, reoriented, or resized, within certain limits, at the onsite inspection. The proposed access road or pipeline can also be rerouted. If necessary, site-specific mitigations are added to the APD as Conditions of Approval (COA) for protection of surface and/or subsurface resource values in the vicinity of the proposed activity.

The field office is responsible for preparing environmental documentation necessary to satisfy the NEPA requirements and provide any mitigation measures needed to protect the affected surface resource values. Consideration is also given to the protection of subsurface water resources. When processing an APD, the BLM geologist is required to identify the maximum depth of usable water as defined in Onshore Oil and Gas Order No. 2. Usable water is defined as that water containing 10,000 parts per million or less of total dissolved solids. Water of this quality is to be protected usually by surface casing and cement. Determining the depth to fresh water requires specific water quality data in the proposed well vicinity or geophysical log determination of water quality, depending on existing well proximity and log availability. If water quality data or logs from nearby wells are not available, the area within a 2-mile radius of the proposed well is checked for water wells. If wells exist, surface casing is required to be set below the deepest fresh water zone found in these wells or to be placed below a depth reasonably estimated for future water wells. In the RMPPA, usable water can be available to great depths and beyond the surface casing setting point. In this case, surface casing is set through the fresh surface waters, and cement is required to protect the remaining useable water from the underlying nonuseable water. The depth of the casing is specified to be below a depth reasonably anticipated for future useable water recovery.

When final approval is given by BLM, the operator can commence construction and drilling operations. Approval of an APD is valid for 1 year. If drilling does not begin within 1 year, the stipulations can be revised prior to extending the APD for another year.

Economic conditions dramatically affect drilling activity and, at the present time, oil and gas markets are buoyant nationwide. However, a downturn in the petroleum market could create a significant decrease in the number of drilling wells within the RMPPA because much of the current activity is infill drilling or in marginal fringe areas. Lower prices could potentially reduce the number of coalbed natural gas (CBNG) wells drilled because of the higher cost of these operations. Increases in activity have occurred over the past 3 years because of increased interest in obtaining gas to supply the Kern River gas pipeline to California and uncharacteristically high gas prices. The RMPPA approved 104 drilling applications in fiscal year 2000, 173 in 2001, 191 in 2002, and 183 in 2003. An approximately equal number of fee and state wells are also usually approved.

In the RMPPA, drilling depths range from a few thousand feet in the Atlantic Rim CBNG area to more than 17,000 feet in the Washakie and Hanna Basins. The vast majority of the wells drilled in the resource area require 30 to 90 days to drill and complete. Some of this time may be consumed with waiting for pipeline connections so that a "green completion" can be made. A green completion allows wells to sell gas during the early clean-up phases of the stimulation program. In the past, a lot of gas was vented or flared during this clean-up phase. Some deep wildcat wells (17,000 to 20,000 feet) may require a year or more to drill and complete.

Surface Disturbance Associated With Exploratory Drilling

Upon receiving approval to drill the proposed well, the operator moves construction equipment over existing roads to the point where the access road will begin. Generally, the types of equipment include dozers (track-mounted and rubber-tired), scrapers, and motor-graders. Moving equipment to the

construction site requires moving several loads (some overweight and over width) over public and private roads. Existing roads and vehicle routes are improved in places and, occasionally, culverts and cattle guards are installed as specified in the approved APD.

The length of the access road varies. Generally the shortest feasible route is selected to reduce the haul distance and construction costs. Environmental factors or the landowner's wishes may dictate a longer route. In rough terrain, the type of construction is sidecasting (using the material taken from the cut portion of the road to construct the fill portion); slightly less than one-half of the roadbed is on a cut area and the rest is on a fill area. Roads are usually constructed with a 14-foot (single lane) or 24-foot (double lane) running surface (in relatively level terrain). Soil texture, steepness of the topography, and moisture conditions may dictate surfacing the access road. The total acreage disturbed for each mile of access road constructed varies significantly with the steepness of the slope.

Well locations are constructed by one of three different general types of construction but, in every case, all soil material suitable for plant growth is first removed and stockpiled in a designated area. Sites on flat terrain usually require little more than removing the topsoil material and vegetation. Drilling sites on ridge tops and hillsides are constructed by cutting and filling portions of the location. The majority of the excess cut material is stockpiled in an area that will allow it to be easily recovered for rehabilitation. It is important to confine extra cut material in a stockpile rather than cast it down hillsides and drainages, where it cannot be recovered for rehabilitation.

The amount of level surface required for safely assembling and operating a drilling rig varies with the type of rig, and the depth and type of the well. The amount of level surface required averages 300 by 400 feet and should be constructed so that the drill rig can be placed on the cut surface instead of fill material to prevent the derrick from leaning or toppling as a result of the settling of uncompacted soil.

In addition to the drilling rig footprint, a reserve pit is constructed, usually square or oblong, but sometimes in another shape to accommodate topography. Generally, the reserve pit is 8 to 12 feet deep, but may be deeper to compensate for smaller length and width or deeper drilling depths. Depending on the relationship of the location to natural drainages, it may be necessary to construct water bars or diversions. The area disturbed for construction depends largely on the steepness of the slope. Depending upon the soil permeability, pits can be lined with an impermeable material to contain the drilling fluids. If water is encountered while digging the reserve pit, a closed mud system, consisting of steel tanks, may be required. For oil base mud, closed systems are mandatory, and the mud and cuttings must be recycled or disposed of in an approved manner.

Usually drilling activities begin within a week or two after the location and access road have been constructed. The conventional drilling rig and associated equipment are moved to the location and erected. Moving a drilling rig may require moving 10 to 25 truckloads of equipment over public highways and private roads. The derrick, when erected, is approximately 160 feet high. Drilling rigs for CBNG wells are much smaller, require fewer loads, and are less structurally imposing.

Water for drilling is hauled to rig storage tanks or transported by surface pipeline. Water sources are usually wells or commercial water sources. Occasionally, water supply wells are drilled on or close to the site. The operator must obtain a permit from the Wyoming State Engineer for the use of surface or subsurface water for drilling and any applicable BLM surface use permits. When drilling commences, and as long as it progresses, water is continually transported to the rig location. Approximately 5,000 barrels or 210,000 gallons of water are required to drill an oil or gas well to the depth of 9,000 feet. More water is required if circulation is lost or permeable zones are encountered that cannot withstand the pressure of the drilling fluid.

Issuance of Rights-of-Way

Rights-of-way (ROW) are required for all facilities, tank batteries, pipelines, power lines, and access roads that occupy federally owned land outside the lease or unit boundary. When a third party (someone other than the operator) constructs a facility or installation on and/or off the lease, a ROW is also required. The ROW is issued by the BLM as detailed in the appendix entitled: Procedures for Processing APDs in the section of that appendix titled Procedures for Handling Split Estate Requests for Access on Federal Surface.

DRILLING OPERATIONS

Rotary Drilling

Initially, drilling proceeds rapidly because of the less competent nature of shallow formations. Drilling is accomplished by rotating the drill string and putting variable weights on the bit located at the bottom of the string. While drilling, the derrick and associated hoisting equipment bear a majority of the drill string's weight. The combination of rotary motion and weight on the bit causes rock to be gouged away at the bottom of the hole. The rotary motion is created by a square or hexagonal rod, called a kelly, which fits through a square or hexagonal hole in a large turntable, called a rotary table. The rotary table sits on the drilling rig floor and, as the bit advances, the kelly slides down through it. When the kelly has gone as deep as it can, it is raised, and a new piece of drill pipe about 30 feet in length is attached in its place. The drill pipe is then lowered, the kelly is reattached, and drilling recommences. When the bit becomes dull, it is necessary to "trip" the drill string and replace the bit. This is a time-consuming process of withdrawing 90-foot sections of the drill pipe until the bit is out of the hole. This process requires a large part of the total drilling time and may cause other hole problems. New bits constructed with modern metals and manufactured polycrystalline diamonds, along with down hole mud motors, have revolutionized drilling operations so that thousands of feet of hole can be drilled with one bit run. In the RMPPA, it is not uncommon to record bit runs of 7,000 feet with one bit. The mud motor is a turbine driven by high-pressure mud and is placed at the top of the bit to enable more rotational power to be transmitted to the bit and, thus, increase penetration rates.

Drilling mud is circulated through the drill pipe to the bottom of the hole, through the bit, up the annulus of the well, across a screen that separates the rock chips, and into holding tanks from which finer sediments settle from the mud before it is pumped back into the well. The mud is maintained at a required weight and viscosity to cool the bit, reduce the drag of the drill pipe on the sides of the hole, seal off any porous zones, contain formation fluids to prevent a blowout, and bring the rock chips to the surface for disposal. Various additives are used in maintaining the mud at the appropriate viscosity and weight. Most of the mud consists of bentonite, a naturally occurring mineral that is mined in Wyoming. Some of the additives are caustic, toxic, or acidic, but these hazardous additives are used in small amounts during the drilling operations and later contained within the reserve pit.

Within the RMPPA, drilling is usually accomplished with water or light mud to depths within about 1,000 feet of the prospective formation. Water and natural clays recovered during the drilling operation or light drilling mud, allow fast drilling rates and the attendant reduction in mud chemicals. Once the bit reaches the target depth, the mud system is gradually made more sophisticated by addition of bentonite, chemicals, and natural weight materials to reduce water loss to the potential producing zones and to control the subsurface pressure. In almost all cases, the subsurface pressure is higher than an equivalent water column, and it is necessary to increase the mud weights to control the pressure and prevent a blowout or uncontrolled flow of formation fluids. Many wells are drilled in an underbalanced condition, whereby the mud pressure is slightly less than the formation pressure, which increases the penetration rate

and reduces the time on the well or in the formations of interest. This reduces the potential of damaging the formation, with the attendant loss of flow capacity and recovery. The wells are always overbalanced for safety requirements when a bit trip is made, the well is logged, or the casing is installed.

Drilling operations are continuous, 24 hours a day, 7 days a week. The crews usually work three 8-hour shifts or two 12-hour shifts a day. Pickup trucks or cars are used for workers' transportation to and from the site. On remote isolated sites, a camp may be established to house the crews, which will reduce the travel requirements. Other operations, such as cementing, running casing and rig maintenance, will require road travel, sometimes with heavy equipment.

Upon completion of the drilling, a determination is made regarding the productive potential of the well. If oil or gas is not discovered in commercial quantities, the well is considered dry. The operator is then required to follow BLM procedures to properly plug the dry hole. The drill site and access road are then rehabilitated in accordance with the stipulations attached to the APD and the plugging approval. If the well is a producer, drilling rig operations continue until the production casing is cemented into the well prior to removing the drilling equipment from the location.

Logging

Geophysical logs are obtained by running various instruments into the hole on a wire cable. Logs are usually run at a depth point where casing will be installed. A log is not usually run before surface casing is set but, in most instances, a log recording natural gamma radiation is run through the surface casing to determine the geology of that section. The logs can determine water resistivity, hydrocarbon saturations, natural gamma radiations, porosity of the rock by density, nuclear receptivity and sonic measurements, permeability, pressure, temperature, hole geometry, and subsurface track. Logs are used to evaluate whether the well is dry or has the potential for a satisfactory completion. Logs also delineate the various geologic horizons; hydrocarbon zones; fresh, usable, and unusable water; and sands, shales, limestones, coals, and other minerals. The hydrocarbon intervals are usually randomly situated in each well, and logs are required to specify these intervals so that they can be perforated and stimulated during the completion program. Normally in the RMPPA, logs recording resistivity and a combined porosity log of density and nuclear receptivity are run in the well. The dual porosity logs are a direct indicator of gas because the measured values can be compared to provide contrasting porosities.

Casing

Various types of casing are placed in the drilled hole to enhance completion operations and safety. Casing is a string of steel pipe composed of approximately 40-foot lengths of pipe that are threaded together. Casing is cemented into the well to protect against migration of fluids within the hole and to isolate the productive zones so they can be completed and produced without interference from other zones containing hydrocarbons or water. Hole deviation, depth, bore hole environment, placement of centralizers (if any), and a myriad of other factors affect the integrity of the casing and cement job and must be considered in the original design.

Surface casing that is properly set and cemented also protects surface aquifers from contamination by drilling and production operations. Surface casing should be set to a depth greater than the deepest fresh water aquifer that could be reasonably developed. Usable water may exist at great depths but these aquifers are not normally considered to be important water sources. Surface casing is designed to be large enough to allow subsequent strings of smaller casing to be set as the well is drilled deeper. Cement is placed in the annulus of the surface casing from casing shoe to ground level. The surface casing is the first string on which blowout prevention (BOP) equipment is installed. The BOP allows the well to be shut in at any time that conditions warrant, protecting against unanticipated formation pressures and

allowing safe control of the well. Blowout prevention equipment is tested and inspected regularly by both the rig personnel and the inspection and enforcement branch of BLM. Minimum standards and enforcement provisions are part of Onshore Order No. 2. Well-trained rig personnel are a necessity for proper blowout prevention.

Generally, only the bottom few thousand feet of intermediate or production casing is cemented, which often leaves several thousand feet of open hole behind some casing strings. In the RMPPA, the annulus is filled with sufficient cement to provide adequate protection from inter-zonal migration of unsuitable water and hydrocarbons. Production casing or production liner is designed to provide isolation of oil and gas formations and provide a high-pressure conduit to the hydrocarbon zones that allows stimulation of these intervals to improve the productivity.

During completion operations, the production casing or liner is perforated into zones containing the oil or gas. In the RMPPA, the low permeability character of the productive formations requires these zones to be "fraced," or stimulated by treated fresh water and large quantities of sand, which improves the productivity to an economic rate. Generally two and up to five stimulation treatments can be accomplished in each well. Normally, approximately 50 percent of the stimulation fluid is produced within a couple of days and the rest over an extended period at low rates. Radioactive tracers show the fracs stay within the zone, which is important to maximize the fracs productivity because a frac length is the primary factor in successfully stimulating a productive interval. After completion, operations are finished, and wellhead equipment, consisting of various valves and pressure regulators, is installed to control the oil or gas flow to the production facilities and allow safely shutting in the well under any conditions.

Oil and Gas Exploratory Units

Surface use in an oil or gas field may be affected by unitization of the leaseholds. In areas of federal and mixed mineral ownership, an exploratory unit can be formed before a wildcat exploratory well is drilled. The boundary of the unit is based on geologic data and attempts to consolidate the interests in an entire structure or geologic play. The developers of the unit enter into an agreement to develop and operate as a single entity, without regard to separate lease ownerships. Costs and benefits are allocated according to agreed-upon terms. Development in a unitized field can proceed more efficiently than in a field composed of individual leases because competition between lease operators and drainage considerations is not a primary concern. Unitization also can reduce surface use requirements because all wells are operated as though under a single lease, and operations can be planned for more efficiency. Duplication of field processing facilities is eliminated, and consolidation of facilities into more efficient systems is probable. Unitization can also involve wider spacing than usual or spacing based on reservoir factor rather than a set rule. This could result in fewer wells and higher recovery efficiency. WOGCC allows wells to be placed in units at any location as long as they are placed within 1,120 feet of the unit boundary. Through planning, access roads are usually shorter and better organized, facilities are usually consolidated, and well efficiency is maximized to a degree not seen in individual lease operations.

Within the RMPPA are 71 non-CBNG producing oil/gas units totaling 397,213 acres. Most of the units are located in the Greater Green River Basin, with two in the Denver Basin and three in the Hanna and Laramie Basins. Almost all of these units are the product of mature agreements with a few new exploratory units located in the more prospective areas of the RMPPA. Currently, four CBNG units have been authorized, and four more are in the process of authorization, totaling 140,336 acres. Most of the CBNG units are located in the Atlantic Rim area on the eastern side of the Greater Green River Basin. Seven secondary recovery units exist in the RMPPA, primarily for the water flood recovery of oil. Two of these units are in a tertiary recovery phase using CO₂ in an alternating water/gas injection program. There are two active gas storage agreements in the RMPPA.

Field Development

New field development is analyzed in an environmental assessment or Environmental Impact Statement (EIS) after the sufficient confirmation wells are drilled. The operator generally can estimate the extent of drilling and disturbance required to extract and produce the oil and gas at that time. Many fields go through several development stages. A field can be considered fully developed and produce for many years when it is determined that a well can be drilled to a deeper pay zone or a new interval is discovered to be economically attractive. In this situation, there is generally little new disturbance because the old well bores or the old well pads are used for the new completions. A new stage of field development, such as infill drilling, can lead to increases in roads and facilities. All new construction, reconstruction, or alterations of existing facilities, including roads, flow lines, pipelines, tank batteries, or other production facilities, must be approved by the BLM and may require a new environmental document. Throughout field development, partial restoration and rehabilitation is required to reduce the surface impacts to the minimum required to produce the resource.

The most important factor in further development of an oil or gas field is the economics of production. When an oil or gas discovery is made, a well spacing pattern can be established before development drilling begins. This is dependent upon the current statewide or area-wide spacing. Well spacing is regulated by WOGCC, and factors considered in the establishment of a spacing pattern include data from the discovery well that translate into recovery efficiency. These data include porosity, permeability, pressure, composition of reservoir and fluids, depth of formations, well production rates, and the economic effect of the proposed spacing on recovery. These data are relatively sparse in the initial phase of development, and extended production permits refinement of these values. Because these data are so tentative, WOGCC tends to define large spacing until the data are more conclusive. The statewide spacing for oil production is 40 acres. Spacing for oil wells usually varies from 40 to 320 acres per well but can be as little as 2½ acres. Spacing for gas wells is generally from 160 to 640 acres per well but may be as small as 10 acres if reservoir recovery efficiency dictates that spacing. Spacing requirements can pose problems in selecting an environmentally sound location or in the cumulative overall impacts. Reservoir characteristics determine the most efficient spacing to achieve maximum recovery. If an operator determines that a different spacing is necessary to achieve maximum recovery, the state (with input from BLM) may grant exceptions to the spacing requirements.

Changes in Production for Each RMP Alternative

Projections of future oil and gas production by alternative and for the baseline Reasonable Foreseeable Development scenario were prepared using type wells, estimated well totals, and estimated decline rates for current producing areas. Producing areas were divided into three parts: (1) coalbed gas reserves, (2) oil and gas in townships 14–24 north and ranges 90–96 west, and (3) oil and gas producing areas in the remainder of the field office. Based on historical drilling data, 75 percent of the future conventional wells are expected to be drilling in the area comprised of townships 14–24 north and ranges 90–96 west. Well totals for conventional and coalbed gas were estimated for each year in which future production is estimated.

Well location reductions from the baseline reasonably foreseeable development scenario, for each alternative, are due to proposed management restrictions. Restrictions can affect oil and gas development activities by not allowing leasing, not allowing surface occupancy, controlling surface use, or adding restrictive stipulations to conditions of approval on federal applications to drill. For reasonably foreseeable development scenario analysis purposes, the restrictions were separated into four classifications designated A, B, C, and D. These four classifications are consistent with the BLM

Planning Handbook, H-1601-1. Restrictions on drilling are progressively more limiting from A to D and are—

- **Classification A**—Areas open to leasing, subject to existing laws, regulations, and formal orders; and the terms and conditions of the standard lease form
- **Classification B**—Areas open to leasing, subject to moderate constraints such as seasonal and controlled surface use restrictions. (These are areas where it has been determined that moderately restrictive lease stipulations may be required to mitigate impacts to other land uses or resource values)
- **Classification C**—Areas open to leasing, subject to major constraints such as no-surface-occupancy stipulations on an area more than 40 acres in size or more than 0.25 mile in width. (These are areas where it has been determined that highly restrictive lease stipulations are required to mitigate impacts to other lands or resource values. This classification also includes areas where overlapping moderate constraints would severely limit development of fluid mineral resources)
- **Classification D**—Areas closed to leasing. (These are areas where it has been determined that other land uses or resource values cannot be adequately protected with even the most restrictive lease stipulations; appropriate protection can be ensured only by closing the lands to leasing.) Identify whether such closures are discretionary or nondiscretionary; and if discretionary, the rationale.

Reductions in well locations from the base line reasonably foreseeable development scenario were determined as described below.

An estimate of the number of well locations/township that could be drilled in each development potential classification over the 20-year life of the Resource Management Plan (RMP) was made for conventional oil and gas development activity and for coalbed gas development activity. This development applies to all leased lands whether existing leases or yet to be leased.

Conventional and coalbed gas development potential maps were overlain and 10 combinations of development potentials were identified (e.g., high conventional oil and gas—moderate coalbed gas, moderate conventional oil and gas—low coalbed gas).

The acres of federal oil and gas ownership in each area were determined using GIS software. Acres of nonfederal oil and gas minerals were not included because proposed RMP decisions will only apply to federal oil and gas minerals. It was assumed that development on nonfederal minerals would occur as estimated in the baseline foreseeable development scenario.

Next, the area covered by each classification of restriction (B, C, and D classifications) within the 10 development potential areas was calculated using GIS software. The area within Classification A was not calculated because we previously determined that this type of restriction would have no effect on the number of well locations for any alternative.

After the acres of federal oil and gas were calculated for each alternative and each restriction classification, the percent reduction in well locations for each alternative and each classification of restriction was estimated. That estimate was a number agreed upon by the authors of the report and is based on professional judgment. This estimate is a percent of the well locations that would not be drilled in each area due to the specific classification of restrictions.

The percent reduction for each alternative, each classification of restriction, and each development potential combination was determined. Then the reduction in well locations was calculated and summed for each alternative for both conventional oil and gas and for coalbed gas.

From baseline (no restrictions) conditions—

- **Alternative 1**—Oil production decreases by 24.7%
 - Conventional gas production decreases by 9%
 - Coalbed gas production decreases by 13.6%
 - Total gas production decreases by 11.5%
- **Alternative 2**—Oil production would decrease by 15.1%
 - Conventional gas production would remain stable (no change)
 - Coalbed gas production would decrease by 11.2%
 - Total gas production would decrease by 6%
- **Alternative 3**—Oil production would decrease by 45.3%
 - Conventional gas production would decrease by 27.2%
 - Coalbed gas production would decrease by 16.7%
 - Total gas production would decrease by 21.5%
- **Alternative 4**—Oil production would decrease by 25.1%
 - Conventional gas production would decrease by 9.6%
 - Coalbed gas production would decrease by 15.2%
 - Total gas production would decrease by 12.7%.

Production

Gas, oil, and water are being produced in the RMPPA by means of natural flow (plunger lifts) and artificial lift (gas and electric pumping units and submersible pumps).

Gas Production

A typical gas well facility consists of methanol injection equipment (to keep production and surface lines from freezing), separator (which separates gas, oil, and water), dehydrator (uses glycol or calcium chloride to extract entrained water in the gas), and an orifice meter. An intermitter is sometimes used to either shut-in the well to build up pressure or to blow the well down if it is being loaded with fluid. If the gas well is producing some oil or condensate, oil tanks are used to store the oil or condensate until it is sold via truck or pipeline. Pipeline quality gas at the wellhead requires a minimum of processing equipment. As the quality of gas decreases with the increased presence of water, solids, or liquid hydrocarbons, the amount of processing equipment increases. Water or liquid hydrocarbons in the gas are removed before the gas is sold, usually in the separation equipment near the wellhead. If liquid hydrocarbons are present, storage facilities (tank batteries) are required to store the liquids until they accumulate in sufficient quantities to be hauled out by large trucks. Gas dehydration equipment may also be present to remove water entrained in the gas to a water content defined by pipeline specifications. In the RMPPA, gas production has averaged 614,309 thousand cubic feet per day (MCFPD) for the last 4 years (starting in 2000), and this is up considerably from the production rate of 77,843 MCFPD recorded in 1978. These data are compiled from WOGCC files. Gas production curves are included in the Reasonable Foreseeable Development scenario for oil and gas that was developed for this RMPPA.

Gas that occurs with oil is separated by venting it at the tank battery; it may also be collected into feeder lines leading to compressors that boost the pressure to the transportation system. If enough casinghead gas is separated to make it economical for marketing, a plant can be constructed to process the gas, or a pipeline can be constructed to carry the product to an existing plant. If the volume of casinghead gas is

insufficient to warrant treatment in a gas plant, it is usually used as fuel for pump engines in the field or as heating fuel for the heater-treaters. Gas is flared or vented into the atmosphere if it exceeds the fuel requirements on the lease but is not in commercial quantities. Wyoming law prohibits the flaring or venting of natural gas. Exceptions allowed by the WOGCC are (1) during testing of a new well, or (2) when the amount of gas produced with the oil is so small that pipeline construction is not practical. Otherwise, if a well produces both oil and gas, provisions for conserving the gas must be made before oil production can continue. BLM Notice to Lessee 4A (NTL4A) requires that all gas that is not used on the lease, vented, or flared without prior authorization either by the BLM or the WOGCC/BLM, or avoidably lost is subject to royalty obligations. In the RMPPA, standard APD COAs allow only 30 days of testing or 50 million cubic feet (MMCF) of vented or flared gas, whichever occurs first. If it is found that gas is produced beyond this point, a determination may be made that the gas was avoidably lost and subject to royalty obligations. Very little casinghead gas is produced in the RMPPA, primarily because of the mature age of the fields that may produce this gas.

Oil Production

In the RMPPA, oil is generally produced using artificial lift methods (pump units). The oil production equipment—heater-treater, tank battery, and holding facility for production water—are either placed on a portion of the location (on cut rather than fill) and located a safe distance from the wellhead or placed as a centralized facility that services a number of wells with pipeline connection. The heater-treater and tanks are surrounded by earthen dikes to contain accidental spills. Either all the facilities or only the produced water pit (if present) will be fenced. Production facility colors are required to be from the standard color chart and are specified in the APD COAs.

Production from several wells on one lease can be carried by pipeline to a central tank battery. Use of a central tank battery can depend on whether the oil is from the same formation, the same lease ownership, or multiple lease ownerships and formations if a commingling agreement is approved. Generally, because of the nature of the oil, adequate separation of oil and water is only obtained through applications of heat. The fluid stream arrives at a separator point where the flash gas is taken off and, in most cases, this flash gas is used for lease operations. The remainder of the flash gas is either compressed and sold or flared. Flash gas is defined as solution gas liberated from the oil through a reduction in pressure. Water and oil are also separated at this point by gravity segregation. The oil is sent to storage tanks, and the water is sent to a disposal or injection facility. Two main methods of oil measurement in the RMPPA are used—lease automatic custody transfer units and tank gauging. Measurement is required by 43 CFR 3162.7-2 and Onshore Order No. 4 to ensure proper and full payment of federal royalty.

Oil wells can be completed as flowing (those wells with sufficient underground pressure to raise the oil to the surface) or, if the pressure is inadequate, they are completed with the installation of subsurface pumps. The subsurface pumps are usually mechanically powered by a pumping unit. Pumping units come in a variety of sizes, the larger ones reaching a height of 30 to 40 feet. The units are powered by internal combustion engines or electric motors. Fuel for the engines may be casinghead gas or propane. In cases where large volumes of water are produced with the oil, electric submersible pumps can be installed. These pumps may produce up to 6,000 barrels of fluid per day at an oil cut of $\frac{1}{2}$ of 1 percent oil. In the RMPPA, oil production has averaged 14,504 barrels of oil per day (BOPD) for the last 4 years (starting in 2000). This is down considerably from a production rate of 21,915 BOPD recorded in 1978. These data are compiled from WOGCC files. Currently, a large portion of the oil is condensate produced with natural gas. Oil production curves are included in the Reasonable Foreseeable Development scenario for oil and gas that was developed for this RMPPA.

Coalbed Natural Gas Production

CBNG production combines high water production rates of some oil fields with low-pressure operations of some gas fields. Because of the reservoir characteristics of coal, high water production rates are initially required to dewater the reservoir and allow gas to be liberated from cleat surfaces within the coal. In a coal reservoir, gas is primarily trapped on the face of the coal within the cleat system via molecular attraction. Pressure must be reduced to liberate the gas molecules from the coal face. The production history shows that water production rates begin high, with little or no gas. The water rate then drops at a constant rate, with increasing gas rates until a maximum gas rate is achieved relative to the original gas saturation and reservoir pressures. The gas rate then declines to the economic limit. This process is the exact opposite of that associated with most oil and gas production, which starts at high hydrocarbon rates and low water rates and advances to low hydrocarbon rates and high water rates. The reservoir depths of CBNG production are generally shallow (less than 5,000 feet) compared with most oil and gas production in the RMPPA. The depth limit is based on coal permeability, which is highly sensitive to overburden weight. A CBNG operation usually consists of a high-capacity submersible or progressive cavity pump, with water produced out of the tubing, and low-pressure gas produced out of the casing. Centralized facilities collect the gas for compression to pipeline pressures and the water for disposal. Electric power is usually used to power the well pumps and is connected to the well via a subsurface cable laid with the water and gas lines. The producing well pad is very small, with only the well head and an insulating house to cover the well head. The centralized production facilities contain well header buildings where the individual well gas is measured and that house collection tanks, injections wells, and pumps for disposal of the water and multistage compressors to bring the very low pressure gas to sales line pressure. Sometimes the water can be disposed of in the local drainages if the Wyoming Department of Environmental Quality (WDEQ) and BLM approve of this type of disposal. Currently in the RMPPA, CBNG production is in its infancy, and little history is available regarding its economics and production rates. One project has produced about 1,965 MCFD and 6,711 BWPD over the year 2003 from 24 wells (82 MCFD/well) as compiled by WOGCC. Two other projects were abandoned after producing only water, and a third project is producing water with only small amounts of gas. The Atlantic Rim CBNG development project estimates a maximum of 250,000 to 450,000 bwpd of produced water for approximately six to eight years and the Seminole Road CBNG development estimates about 180,000 bwpd during peak production. Actual water productions are likely to rise steadily as development occurs and wane as the pressure regime for adsorption of the natural gas is reached.

Water Production

Associated water produced with the oil, gas, or CBNG is disposed of by trucking the water to an authorized disposal pit, by placing the water in lined or unlined pits, by discharging the water into surface drainages, or through subsurface injection. Water disposal is controlled by the WDEQ for surface or near-surface disposal or by WOGCC for subsurface disposal and secondary recovery purposes. The quality of the water often dictates the appropriate disposal method, and WDEQ has primacy through the Environmental Protection Agency (EPA) to approve surface disposal of this water.

Produced water is also used in enhanced recovery projects. The RMPPA has been handling large volumes of water for a long period of time. This area was among the first in establishing secondary recovery operations in Wyoming, with several secondary recovery units created in the early 1960s, and one unit in 1937. Secondary recovery operations always require subsurface injection to enhance hydrocarbon recovery and, in most cases, use water. WOGCC files for the RMPPA show water production rates of 108,429 barrels of water per day (BWPD) in 1978, and this value reached a maximum of 338,925 BWPD in 1987. For the last 4 years, starting in 2000, water production rates averaged 246,473 BWPD. Essentially all of this water is injected into the subsurface with no apparent environmental harm.

Production Problems

Weather extremes pose problems for producers by causing roads to become impassable, equipment to malfunction, and flow lines, separators, and tanks to freeze up. Other problems producers face in the area are production of H₂S, CO₂, and paraffin, corrosion, electrolysis, and broken flow lines.

Secondary and Enhanced Oil Recovery

Gas reservoirs typically have no secondary recovery associated with the recovery of gas. This is because natural gas is produced by expansion resulting from the reduction of reservoir pressure. Typically a high reservoir recovery factor can be expected from this expansion process unless the reservoir is of such low permeability that economics becomes a factor in the recovery efficiency. Economics is a determining factor because of the expense of operating compression facilities to reduce the reservoir pressure to the minimum. In the RMPPA, most of the reservoirs are overpressured but have very low permeability. The overpressure allows more gas to be stored but the low permeability limits the recovery to a smaller portion of the area around each well. In the RMPPA, studies show that each well will recover the reserves within only an 80-acre pattern, requiring a doubling of the wells in most of the large gas fields to fully produce the resource.

In rare cases where the gas is very rich and contains a large quantity of entrained liquids, secondary recovery uses inert gases like nitrogen or dry natural gas to keep the reservoir pressure above the condensation point in order to produce the maximum amount of liquids. This secondary recovery process requires sweeping the reservoir with undersaturated gas to entrain and sweep out the rich gas. After this secondary process is accomplished, especially in dry natural gas secondary recovery operations, the reservoir is depressurized to recover the maximum amount of the remaining gas reserves.

Secondary recovery in coal reservoirs has been tested in the San Juan Basin and found to be technically feasible. It involves the molecular replacement of natural gas by carbon dioxide or nitrogen. This process has also been touted as a method of sequestering CO₂ to remove the greenhouse gas from the atmosphere. A large quantity of CO₂ is available immediately to the west of the RMPPA, and a CO₂ pipeline is located to the northwest of the projected CBNG development, so this process may potentially be used in the future if the economics are favorable.

An oil reservoir typically contains oil, gas, and water trapped within the rock matrix under pressure. Because of the pressure, much or all of the gas is dissolved in the oil. "Primary drive" is accomplished by the expansion of gas in solution, which forces oil out of the reservoir into the well and up to the surface. Oil flowing out of the reservoir drains energy from the formation and the primary drive diminishes. To keep oil flowing in the reservoir, pressure drawdown is required, and subsurface pumps may be used to lift oil to the surface. As reservoir pressures continue to drop, solution gas in the oil escapes, forming bubbles in the pore space. These bubbles further retard the flow of oil and increase the gas saturation and the flow of solution gas. This process accelerates as the pressure declines and, at some point, production rates become uneconomical, with as much as 80 percent of the original oil remaining in the reservoir. Currently, in the United States, primary oil recovery accounts for less than half of the current oil production. The remaining oil is produced via secondary and enhanced recovery techniques.

Two basic secondary recovery methods are in use: (1) water flooding and (2) displacement by gas. The preferred secondary recovery method is water flooding. This process involves injecting water into oil reservoirs to maintain or increase pressure. The process is usually most efficient when the pressure has not fallen to the point where the reservoir is highly saturated with gas. Reservoir heterogeneity in the form of fractures, directional permeability, and thin zones may limit the success of this process.

The process of injecting gas is a less popular secondary recovery technique. Historically, produced gas was considered a waste product and was flared (burned) at the point of production. Later, it was recognized that the energy could be conserved and the recovery of oil increased if the produced gas was reinjected into the reservoir. Increased production was achieved by (1) maintaining reservoir pressure by injecting the gas into the existing gas cap and (2) injecting the gas directly into the oil-saturated zone, creating an immiscible gas drive that displaced the oil. To achieve miscibility, the reservoir must have reasonably high pressures and temperatures and contain high-gravity oil. Many gas injection projects use the water and gas (WAG) process, i.e., inject water and gas alternately to achieve better contact with the oil within the reservoir. Currently, the high price and demand for natural gas has precluded this type of secondary recovery.

In the RMPPA, seven secondary recovery units have been or are currently being water flooded. Most of these include reservoirs within geologic structures located around the margins of the various basins such as Denver, Laramie, Carbon, and Greater Green River. Essentially all the floods are very mature, and economics become a major factor. Under the current high oil price environment, these floods should continue to produce, but it is estimated that, within the 20-year planning period, many will reach their economic limit and be abandoned. A potential caveat is the potential for tertiary CO₂ injection as described below. The State of Wyoming is currently funding a major study related to the potential for CO₂ tertiary recovery, which may result in increased incentives via the tax system to implement this potential process and extend the life of these fields.

Gas injection is not currently being used as a secondary recovery technique within the RMPPA, although it was used in the past.

The term "enhanced recovery" is used to describe recovery processes other than the more traditional secondary recovery procedures. These enhanced recovery methods include thermal, chemical, and miscible (mixable) drives. Currently no enhanced recovery techniques are being implemented within the RMPPA, but it is unknown whether these techniques could be applicable in the future based on economics and new discoveries.

Some reservoirs contain large quantities of heavy oil that cannot be produced using normal or secondary methods. These may be stimulated by thermal drive processes in which heat is introduced from the surface or developed in place in the subsurface reservoir. In the surface introduction process, hot water or steam is injected. Raising the temperature of heavy oil reduces the viscosity and makes the oil more mobile. Thermal recovery techniques are not likely to be tried in the RMPPA because the oils present here are not heavy oils. In the in-situ process, both heavy and light oils can be processed. Spontaneous or induced ignition within the reservoir is induced by injected air to develop a fire front that burns the hydrocarbons. Evaporation of the lighter ends immediately ahead of the fire front and later condensation is the primary recovery mechanism. The remaining hydrocarbons are consumed by the fire and are generally not considered of any value. These techniques are very expensive and must have large reserves and thick pay zones to be economical. It is unlikely they will be used within the RMPPA in the immediate future unless new discoveries are made.

Several chemical drive techniques are currently in use, including (1) polymer flooding, (2) caustic flooding, and (3) surfactant-polymer injection. These methods attempt to change reservoir conditions to allow recovery of additional oil. Caustic and surfactant-polymer flooding have not been economical in the past and, unless a breakthrough in technology is achieved, they will probably not be considered during the planning period. Polymer flooding is an economically viable process but is used mainly in viscous reservoirs with high permeability. Currently no such reservoirs exist in the RMPPA, but future discoveries could be made.

Carbon dioxide appears to have the best potential for enhanced and tertiary recovery methods. CO₂ is miscible with oil at relatively low pressures and temperatures, and can be used with oil with a wide range of characteristics. CO₂ miscibility reduces the oil viscosity and allows much more efficient displacement by water. Usually CO₂ is injected via the WAG process in alternating slugs of CO₂ and water. Not only does CO₂ create miscible flow but it also can displace oil by gravity segregation between the CO₂, gas, and oil. This process may allow sequestration of large volumes of the CO₂ greenhouse gas in the many applicable reservoirs in the RMPPA and recover the last possible oil reserves. Sequestration of CO₂ is advocated as a method to remove the gas from the earth's atmosphere by storing the gas for geologic time. Other structures within the RMPPA that do not contain oil could also be applicable for sequestration. Two tertiary recovery projects are active within the RMPPA at this time and both use CO₂. Both projects have been successful, and if prices remain high, they should recover a large volume of oil in the future. It is doubtful whether these projects will last the full 20 years unless CO₂ sequestration becomes economical via tax credit implementation.

Gas Storage

Pipeline-quality gas can be stored in good quality reservoirs with excellent sealing parameters. This gas is pumped into the reservoir during nonpeak, usually lower priced time periods, and then pumped out into the transmission lines at times of peak demand and good prices. The differential in price pays the governmental storage fees for the use of the reservoir and the injection/compression costs required to store and retrieve the gas. It also serves as a buffer for cold periods when demand is high and levels out the summer slack period of production. There are two active gas storage reservoirs within the RMPPA.

Plugging and Abandonment of Wells

The purpose of plugging and abandoning a well is to prevent fluid migration between zones, to protect minerals from damage, and to restore the surface area. Each well has to be handled individually due to a combination of factors, including geology, subsurface well design, and specific rehabilitation concerns. Therefore, only minimum requirements can be established, and these must be modified for individual wells.

The first step in the plugging process is the filing of the Notice of Intent to Abandon. This notice will be reviewed by both the SMA and RMPPA petroleum engineer. The notice must be filed and approved prior to plugging a past producing well. Verbal plugging instructions can be given for plugging current drilling operations, but a notice must be filed after the work is completed. If usable fresh water was encountered while the well was being drilled, the SMA may be allowed, if interested, to assume future responsibility for the well, and the operator will be reimbursed for the attendant costs. This assumption of responsibility becomes effective after the deeper zones are plugged back to the usable water zone. Usually the operator is more than satisfied to remove the surface reclamation liability and will not charge for the remaining well equipment.

The operator's plan for securing the hole is reviewed. The minimum requirements as stated in Onshore Order No. 2, are as follows: In open hole situations, cement plugs must extend at least 50 feet above and below zones that have fluid with the potential to migrate, zones of lost circulation (this type of zone may require an alternate method to isolate it), and zones of potentially valuable minerals. Thick zones may be isolated using cement plugs across the top and bottom of the zone. In the absence of productive zones and minerals, long sections of open hole may be plugged with cement plugs placed every 3,000 feet. In cased holes, cement plugs must be placed opposite perforations and extend 50 feet above and below, except where limited by plug back depth. The length of the plug is 100 feet plus 10 percent per 1,000 feet; i.e., at 10,000 feet, the plug will be 200 feet long.

Cement plugs could be replaced with a cement retainer, if the retainer is set 50 feet above the open perforations and the perforations are squeezed with cement. A bridge plug may also be used to isolate a producing zone and must be capped, if placed through tubing, with a minimum of 50 feet of cement. If the cap is placed using a dump bailer, a minimum of 35 feet of cement is required. A dump bailer is an apparatus run on wire line to convey the cement to the bottom of the hole. In the event that the casing has been cut and recovered, a plug is placed 50 feet within the casing stub, and the 100 feet plus 10 percent per 1,000 feet rule is used for the space above the cutoff point. In all cases, a plug is set at the bottom of the surface casing that has a volume of cement using the 100 feet plus 10 percent per 1,000 feet rule. This may require perforating the casing and circulating or squeezing cement behind the production casing if that casing is not removed. Annular space at the surface will be plugged with 50 feet of cement using small-diameter tubing or by perforating and circulating cement.

If the integrity of a plug is questionable or the position is extremely vital, it can be tested with pressure or by tagging the plug with the tubing or drill string. Tagging the plug involves running pipe into the hole until the plug is encountered and placing a specified amount of weight on the plug to verify its placement and competency. The surface plug within the casing must be a minimum of 50 feet. The interval between plugs must be filled with mud that will balance the subsurface pressures, and if this balance point is unknown, a minimum of 9 pounds per gallon is specified. After the casing has been cut off below the ground level, any void at the top of the casing must be filled with cement. If a metal plate is welded over the top of the casing, a weep hole is placed in the plate. A permanent abandonment marker is required on all wells unless otherwise requested by the SMA. This marker pipe is usually at least 4 inches in diameter, 10 feet long, 4 feet above the ground, and embedded in cement. The pipe must be capped with the well identity and location permanently inscribed.

The SMA is responsible for establishing and approving methods for surface rehabilitation and determining when this rehabilitation has been satisfactorily accomplished. With satisfactorily rehabilitation, a Subsequent Report of Abandonment is approved, and the well bond released. As of November 3, 2003, 2,958 wells had been plugged and abandoned in the RMPPA. Over the last 3 years, approximately 20 wells per year have been plugged and abandoned in the RMPPA.

APPENDIX 21—CLARIFICATION OF OHV DESIGNATIONS AND TRAVEL MANAGEMENT IN THE BLM LAND USE PLANNING PROCESS

In conformance with the Bureau of Land Management (BLM) Washington Office IM No. 2004-005 (October 1, 2003), the Rawlins Resource Management Plan Planning Area (RMPPA) will be divided into areas that are open, limited, or closed to off-highway vehicle (OHV) travel. Those areas that are designated limited may have seasonal restrictions or travel limitations to either existing or designated roads and vehicle routes, or any combination of these.

Travel management areas (TMA) within the RMPPA are identified as those areas selected in the alternatives as OHV areas as “Limited to Designated Roads and Trails”, “Closed” or “Open” (Map 2-42, Map 2-43, and Map 2-44). Comprehensive travel and transportation management plans (CTTMP) will be completed for each TMA within five years of signing the Record of Decision (ROD) for the Rawlins Field Office RMP and will address both motorized and non-motorized access. This will be accomplished through a collaborative and community-based process by incorporating internal and external input from cooperating agencies, communities, and interest groups.

ROAD AND VEHICLE ROUTE DESIGNATION PROCESS FOR LIMITED TO DESIGNATED OHV AREAS

During the travel management planning period, the following will occur:

- Interim management guidelines for identification of the road and vehicle route network, including signing and maintenance, will be defined.
- Additional data needs and collection strategy will be outlined.
- A clear planning sequence, *including public collaboration*, criteria, and constraints for subsequent road and vehicle route selection and identification, will be established with a schedule not to exceed 5 years.
- Collaboration on designation of roads and vehicle routes will occur, consistent with the goals, objectives, and other considerations described in the Resource Management Plan (RMP), according to the above planning sequence.
- A travel management implementation plan will be written.
- Installation of signs and barriers where needed, and reclamation according to the plan, will occur.
- Desirable roads may be reopened after repairs, recovery, or adequate mitigation has occurred.

Until the designation process is completed, travel in limited to designated areas (LDA) will remain limited to existing roads and vehicle routes. Some portions of LDAs may receive other designations during the planning process outlined above. Travel on parcels of public land not having legal public access will remain limited to existing roads and vehicle routes.

The LDAs will be divided into geographic sub-areas in which specific roads and vehicle routes will be designated open to OHV travel. Geographic sub-areas and their order of consideration will be determined

based on criteria such as current OHV use, areas with sensitive resources, and areas with special designations (i.e., areas of critical environmental concern [ACEC], wildlife habitat management areas, and special recreation management areas [SRMA]). Roads and vehicle routes that are designated open may have further restrictions placed on their use.

During the planning process, teams made up of BLM, cooperating agencies, and members of the public will be used to ensure resource concerns and OHV user needs are properly addressed. Maps will be available to the teams that include all known roads to aid input for additional roads and vehicle routes to be considered for designation as open to OHV use. In addition to the sub-areas in general, these groups will address roads and vehicle routes in specific areas that have ongoing resource problems.

Criteria for road closures include the following:

- OHV use is causing, or will cause, considerable adverse effects.
- A road or vehicle route poses a threat to public safety.
- Road density is adversely affecting resources.
- Closure is necessary for desired future conditions for access.
- Closure is necessary for visual resource protection.
- Closure is necessary for sensitive habitat management.

BLM recognizes that designated OHV recreation sites play a vital role in satisfying a portion of the recreation experience for OHV enthusiasts. These areas include motocross tracks, novice riding areas, and dune riding areas. The proposed Rawlins OHV area and the OHV open area at the Dune Ponds Cooperative Management Area address these needs. These sites would be managed to reduce the possibilities for inappropriate activities on adjacent public and private lands. Management of these sites will include education, public outreach, and signing.

Table A21-1 shows the preliminary schedule for completion of the travel management plan.

Table A21-1. Preliminary Schedule for Travel Management Plan for RMPPA LDAs

	Jan–March	April–June	July–Sept	Oct–Dec
Year 1	Create Basic Maps	Schedule and Draft Implementation Plan	Collaborate on Sub-Area A	Do Mapping and Purchasing for A
Year 2	Collaborate on Sub-Area B	Do Mapping and Purchasing for B	Implement Sub-Area A	Collaborate on Sub-Area C
Year 3	Do Mapping and Purchasing for C	Implement Sub-Area B	Implement Sub-Area C	Collaborate on Sub-Area D
Year 4	Collaborate on Sub-Area E	Do Mapping and Purchasing for D/E	Implement Sub-Area D/E	Complete Implementation
Year 5	Complete Documentation	Start Monitoring		

APPENDIX 22—ACEC DESIGNATION PROCESS

Areas of critical environmental concern (ACEC) are areas of Bureau of Land Management (BLM)-administered lands where special management attention is needed to protect their important and relevant values. “Special management attention” (43 U.S.C. 1702 Sec. 103[a]) refers to management prescriptions developed during preparation of a Resource Management Plan (RMP) or amendment expressly to protect the important and relevant values on an area from the potential effects of actions permitted by the RMP, including proposed actions deemed to be in conformance with the terms, conditions, and decisions of the RMP (BLM Manual 1613). These are management measures that would not be necessary or prescribed if the critical and important features were not present.

To be designated as an ACEC, the area must meet the criteria of relevance and importance (as defined in BLM Manual 1613). Areas meeting the relevance criterion possess significant historic, cultural, or scenic values; fish or wildlife resources, including threatened and endangered species; or natural hazards. To meet the importance criterion, the resource must have substantial significance and value. This generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern.

There were four existing ACECs within the Resource Management Plan Planning Area (RMPPA): Como Bluff ACEC, Sand Hills ACEC, Jep Canyon ACEC, and Shamrock Hills ACEC. Public comment received during scoping suggested that a number of areas be considered for designation as ACECs, and some areas were proposed as potential ACECs by BLM staff. Thus, other areas within the RMPPA that were identified as potential ACECs include the Red Rim-Daley Area, Upper Muddy Creek Watershed/Grizzly Area, High Savery Dam, Stratton Sagebrush Steppe Research Area, Chain Lakes Areas, Laramie Peak Area, Pennock Mountain wildlife habitat management area (WHMA), Wick-Beumee WHMA, Laramie Plains Lakes Area, blowout penstemon area, white-tailed prairie dog areas, black-tailed prairie dog areas, historic trails, mountain plover concentration areas, the Bates Hole/Chalk Mountain cushion plant community, and the Powder Rim juniper woodland.

BLM was required to determine if existing ACECs and areas proposed for ACEC designation met the relevance and importance criteria prior to inclusion in the RMP process. BLM completed the evaluation forms presented in Table A22-1, ACEC Proposal Evaluation Forms That Met Relevance and Importance. Areas that met the relevance and importance criteria are discussed in Chapter 3 and management of these areas is presented in Chapter 2, Section 2.3.11 and Table 2-1 of the RMP. Areas that did not meet both relevance and importance were dropped from further consideration for ACEC designation. The evaluation forms for all existing and proposed ACECs are presented in *Evaluation of Relevance and Importance Criteria for Existing and Proposed ACEC—BLM Rawlins Field Office* (USDI BLM 2004a).

**Table A22-1. ACEC Proposal Evaluation Forms That Met Relevance and Importance —
Rawlins Field Office**

RMP Process

ACEC Proposal Evaluation Form—Como Bluff ACEC (Existing)

Como Bluff Area Considered		
General Location	T22N, R77W	
General Description	Gently dipping exposure of Jurassic Morrison formation	
Acreage	1550	
Values Considered	Paleontological	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	YES	A location where many early dinosaur fossils have been recovered. More specifically, the formations exposed are highly fossiliferous and have provided significant paleontological resources since the 1870s. Como Bluff has yielded approximately 80 new species of vertebrates.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	NO	NA
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	Como Bluff has exposures of highly fossiliferous formations from the Cretaceous through the Triassic.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA

Como Bluff

Importance:

The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	Known worldwide; specimens of dinosaur fossils from this site are exhibited in museums throughout the United States and Europe.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	The exposures of numerous highly fossiliferous formations are considered one of the most significant in the United States, and are unique to the locale.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	YES	Como Bluff was nominated to the National Register of Historic Places for the role it played in the development of the science of paleontology in 1973, and was designated a National Natural Landmark in 1973.
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—Sand Hills ACEC (Existing)

Sand Hills		
Area Considered		
General Location	T17N, R90W; T16N, R90-91W,	
General Description	Sand Hills and JO Ranch Exchange	
Acreage	13,760 total acres, including 8,300 acres of the existing Sand Hills ACEC, 1,236 acres resulting from the JO Ranch Exchange), and 4,224 of buffer area to protect the viewshed and riparian habitat	
Values Considered	Historic and cultural values, wildlife values, and presence of an unique vegetation community complex	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	YES	The JO Ranch/Rankin Ranch is eligible for the National Register of Historic Places. The ranch is a unique example of ranching that represents over 100 years of continuous use.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	The Sand Hills area contains a very unique vegetation community complex combining natural sand dunes with an array of diverse vegetation including antelope bitterbrush, silver sage, Wyoming big sage, rabbitbrush, chokecherry and serviceberry. The area is also important crucial winter range for mule deer and elk. The area contains Greater sage-grouse habitat and raptor nesting. One known Columbian sharp-tailed grouse dancing ground has been identified within the Sand Hills ACEC portion of this proposed ACEC; the Columbian sharp-tailed grouse is a Wyoming BLM state sensitive species.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	The Sand Hills area contains a very unique vegetation community complex combining natural sand dunes with an array of diverse vegetation. Also, riparian habitat exists along Cow Creek and associated irrigated meadows.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA

Sand Hills

Importance:

The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	The ranch is a unique example of ranching that represents over 100 years of continuous use; the ranch is cultural-eligible for NRHP under Criteria A. The Sand Hills area contains a very unique vegetation community complex combining natural sand dunes with an array of diverse vegetation.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	The ranch contains significant cultural values, and its buildings require stabilization and protection to protect these values. The soils (dunes) of the area's unique vegetation community complex require stabilization and protection.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	YES	State historic properties present at the site must be protected.
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	YES	Safety concerns related to unstable building structures exist on the ranch. Also, there are concerns related to hazardous materials, such as contaminated well water and rodent droppings, which may be present in these buildings.
Poses a significant threat to human life and safety or to property.	YES	There are concerns related to hazardous materials, such as contaminated well water and rodent droppings, which may be present in these buildings.

ACEC Proposal Evaluation Form—Jep Canyon ACEC (Existing)

Jep Canyon		
Area Considered		
General Location	T17-19 N, R88-90W (in various sections)	
General Description	The area is located approximately ten miles southwest of Rawlins, Wyoming.	
Acreage	The ACEC exists in the checkerboard area; there are 13,320 acres of public land.	
Values Considered	Wildlife values, specifically, crucial winter range for elk and nesting raptor pairs	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance:		
An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	NO	NA
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	The area contains crucial winter habitat for elk and habitat for nesting pairs of raptors.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	NO	NA
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA
Importance:		
The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	NO	NA

Jep Canyon		
Importance Value	Yes/No	Rationale for Determination
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	Public land in the area contains crucial winter habitat for elk and nesting raptor pairs.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	NO	NA
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—Shamrock Hills ACEC (Existing)

Shamrock Hills		
Area Considered		
General Location	Located north of I-80 approximately 10 miles North West of Rawlins	
General Description	High relief topography that includes a high concentration of raptors ranging from red-tailed hawks, Cooper's hawks, golden eagles, and prairie falcons	
Acreage	Approximately 17,280 acres of public land	
Values Considered	Wildlife	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	NO	NA
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	The area has a large population of nesting ferruginous hawks. The area has been identified as both a raptor concentration area, and is an existing ACEC. In February 2000, the area was determined to meet the qualifications of a Nationally Important Bird Area in the American Bird Conservancy's United States Important Bird Areas. The area is also part of a long-term monitoring program.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	NO	NA
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA
Importance: The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		

Shamrock Hills

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	In February 2000, the area was determined to meet the qualifications of a Nationally Important Bird Area in the American Bird Conservancy's United States Important Bird Areas. The area is also part of a long-term monitoring program.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	NO	NA
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	NO	NA
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—Red Rim Daley (Proposed ACEC)

Red Rim Daley Area		
Area Considered		
General Location	T19-21N, R89-90W (in various sections); the area is located approximately 15 miles southwest of Rawlins, Wyoming.	
General Description	The Red Rim area contains both the Daley Ranch Allotment and the Daley Ranch Pasture.	
Acreage	15,524 acres	
Values Considered	The values considered include the scenic values within the Red Sandstone Uplift, which contain historic carvings, and crucial winter habitat for antelope.	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance:		
An area meets the “relevance” criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	YES	This area has scenic values within the Red Sandstone Uplift, which also contains historic carvings. The historic carvings, located at the southern end of the rock uplift, include the names and dates of people that have traveled through the area.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	This area contains crucial winter habitat for pronghorn antelope, which is necessary for the long-term protection and development of the species.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	NO	NA
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA
Importance:		
The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the “importance” criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		

Red Rim Daley Area

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	NO	The Red Rim area contains about a quarter of the important crucial winter range for pronghorn antelope in the RMPPA; the pronghorn antelope had national importance during the Red Rim fence controversy.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	The Red Sandstone Uplift contains unique and fragile historic carvings. The potential for conflicts between pronghorn antelope using crucial winter range habitat and coal development, specifically coal bed methane development, exists in the area. The area may require additional management to maintain unique scenic and wildlife values.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	NO	NA
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—Upper Muddy Creek Watershed/Grizzly Area (Proposed ACEC)

Upper Muddy Creek Watershed/Grizzly Area		
Area Considered		
General Location	T15-17, R88-90 (in various sections)	
General Description	Upper Muddy Creek watershed lies southwest of Rawlins, Wyoming. The habitat area is located approximately 30 miles southwest of Rawlins, Wyoming, and includes portions of the Muddy Creek watershed (4 th Order) above the Weber Headcut structure.	
Acreage	127,430	
Values Considered	Wildlife and riparian values (the area is part of the Muddy Creek watershed system)	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance:		
An area meets the “relevance” criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	NO	NA
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	The area contains elk crucial winter range and important potential habitat for Colorado river cutthroat trout (CRCT). Four BLM Wyoming state sensitive species (including CRCT) occur together in this watershed within Wyoming, making it a unique remnant of the Colorado River basin native fish fauna. Active research and restoration activities are being implemented for these species within this area.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	The area is part of the Muddy Creek watershed system, which includes important potential habitat for CRCT. The area is a species reintroduction area for CRCT. BLM and Wyoming Game and Fish Department (WGFD) signed a memorandum of understanding (MOU) for the management of CRCT. The area is also part of a grazing demonstration area; grazing boundaries must be observed.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA
Importance:		
The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the “importance” criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		

Upper Muddy Creek Watershed/Grizzly Area

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	The area is part of the Muddy Creek watershed system, which includes important potential habitat for CRCT. The area is a species reintroduction area for CRCT. BLM and WGFD signed a MOU for the management of CRCT. Also, a tri-state plan exists for management and restoration of CRCT. The habitat area represents the last remaining remnant populations of this particular fish fauna within Wyoming.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	The area is part of the Muddy Creek watershed system, which includes important potential habitat for CRCT. The area is a species reintroduction area for CRCT. BLM and WGFD signed a MOU for the management of CRCT. The riparian system is rare, and these fish species have witnessed drastic declines throughout their native ranges.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	YES	The area is part of the Muddy Creek watershed system, which includes important potential habitat for CRCT. A tri-state plan exists for management and restoration of CRCT.
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—High Savery Dam (Proposed ACEC)

High Savery Dam		
Area Considered		
General Location	T15N, R88W, 6 th P.M., Carbon County, Wyoming	
General Description	The area is located adjacent to the High Savery Dam and Reservoir, and encompasses portion of Savery Creek, a developable fishery. Big game habitat, antelope, elk, and deer exist in the area.	
Acreage	Approximately 530 acres of public land.	
Values Considered	Riparian and recreational values	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance:		
An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	NO	NA
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	Upon the completion of the High Savery Dam and Reservoir Site, the reservoir may be stock with up to 14,600 adult CRCT. Also, a segment of the Savery Creek is within the project area and this could be developed into a fishery and a recreation site. Big game habitat also exists within the area.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	NO	NA
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA
Importance:		
The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		

High Savery Dam

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	A portion of the Savery Creek riparian area has potential to be developed into a fishery and recreation site. Through a MOU between the Wyoming Water Development Commission (WWDC) and the BLM signed June 2, 2003, the area would be jointly managed for recreational purposes. This includes lands both at the reservoir and at Savery Creek.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	Recreation and fishery development potential at Savery Creek, and at the High Savery Dam and Reservoir site.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	NO	NA
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—Stratton Sagebrush Steppe Research Area

Stratton Sagebrush Steppe		
Area Considered		
General Location	Located along BLM Road 3422 West of Saratoga, Wyoming.	
General Description	The area includes five small watersheds in the headwaters of Beaver Creek,	
Acreage	5,500 (of federal lands)	
Values Considered	Historic and scientific	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance: An area meets the “relevance” criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	YES	A watershed study area for the analysis of vegetation management in high altitude sagebrush ecosystems. There has been a tremendous investment in infrastructure and data gathering on this site in the past.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	NO	NA
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	High altitude sagebrush study locations are rare, which makes this particular site unique. This site offers the opportunity to gain information about how to better manage BLM high altitude sagebrush lands for multiple uses.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA
Importance: The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the “importance” criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	High altitude sagebrush study locations are rare, which makes this particular site unique.

Stratton Sagebrush Steppe		
Importance Value	Yes/No	Rationale for Determination
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	NO	NA
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	YES	This area was set aside as a withdrawal to protect the research value of the site.
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	YES	This site offers the opportunity to gain information about how to better manage BLM high altitude sagebrush lands for multiple uses.
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—Chain Lakes Area

Chain Lakes Area		
Area Considered		
General Location	The Chain Lakes Habitat Area is located in the Red Desert approximately 30 miles northwest of Rawlins, Wyoming.	
General Description	The area contains a string of alkali lakes and associated wetlands with high sagebrush steppe habitat located to the south.	
Acreage	30,562 acres of which 54 percent are either owned or leased by WGFD, and the remaining 46 percent are federal lands administered by the BLM.	
Values Considered	The values include the natural lakes and associated wetlands, and a fence-free corridor for antelope migration to the south and east. The area receives heavy antelope use during periodic severe winters.	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance:		
An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	NO	NA
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	The area contains migrations corridors for antelope to the south and the east. Antelope use the area extensively during periodic severe winters.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	The area contains a unique alkaline desert natural wetland community. Mud pots, rare geological features, are scattered throughout the area. This area is a reserve common allotment that has winter use that is presently compatible with antelope use.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA
Importance:		
The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		

Chain Lakes Area

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	The area contains a unique desert wetland ecosystem that provides important habitat for a diversity of species.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	The area contains a unique, fragile, and rare alkaline desert lake system.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	NO	NA
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—Laramie Peak Bighorn Sheep Habitat Management Plan (HMP) Area

Laramie Peak Bighorn Sheep Habitat Area		
Area Considered		
General Location	The HMP Area encompasses T19-33N, R68-78W (in various sections); the BLM administered lands are located in T. 22-24 N., R. 71-73 W., in various sections. The Laramie Peak HMP is located northwest of Cheyenne, Wyoming and west of Wheatland, Wyoming.	
General Description	The Laramie Peak HMP is located northwest of Cheyenne, Wyoming and west of Wheatland, Wyoming. The HMP was created by signed agreement between the BLM (Casper and Rawlins Field Offices), WGFD, and the U.S. Forest Service (USFS) in 1994-1995 to restore, improve, and enhance habitat conditions for bighorn sheep and other wildlife species. The BLM portions of the entire HMP area contain crucial winter habitat for bighorn sheep, elk, and mule deer.	
Acreage	2,045,300 acres (including 349,648 acres of BLM surface/federal minerals and 798 acres of BLM surface/state minerals located in this portion of the HMP area; there are also 576,380 acres of private surface/federal minerals and 33,675 acres of state surface/federal minerals)	
Values Considered	Wildlife	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance:		
An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	NO	NA
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	The goal of the HMP is to improve the distribution of bighorn sheep populations and associated genetic diversity by increasing and improving the amount and quality of open, secure foraging areas (adjacent to water and escape cover) in site-specific habitat areas. There are presently 15 proposed habitat sites, of which one, the Split Rock/Reese Mountains area, had lightning strike fires occur in 2002.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	There is the potential for the Laramie columbine, a BLM Wyoming state sensitive plant species, to occur in this area.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA

Laramie Peak Bighorn Sheep Habitat Area

Importance:

The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	NO	NA
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	Diseases, predators, fire suppression, decreased habitat quality (e.g., restricted travel corridors, over-abundance of dense conifer stands, and lack of good quality forage), competition, human encroachment, and stress have all contributed to the decreased bighorn sheep populations in the Laramie Range. Over the years, the Wyoming Game and Fish Department (WGFD), BLM, U.S. Forest Service (USFS), environmental groups (e.g., Foundation for North American Wild Sheep), and the general public have expressed concern over the low population growth and recruitment of sheep due to these factors. These sheep sub-herds are becoming more and more isolated in nature, which tends to decrease genetic viability and generates the overall detrimental condition to the population as a whole.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	NO	NA
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—Laramie Plains Lakes Area¹

Laramie Plains Lakes Area		
Area Considered		
General Location	The area includes the Lake Hattie and Hutton Lake Habitat Areas, and the Twin Buttes Lake Habitat Area and Outdoor Classroom. The Hutton Lake Habitat Area is located approximately eight miles south of Laramie, Wyoming, and northeast of the Hutton Lake National Wildlife Refuge, which is managed by the U.S. Fish and Wildlife Service. The Lake Hattie Habitat Area is located approximately 15 miles southwest of Laramie, Wyoming. The Twin Buttes Habitat Area is located approximately 13 miles southwest of Laramie, Wyoming. The Twin Buttes Lake Habitat Area is located north of Twin Buttes Lake.	
General Description	The area includes the Lake Hattie and Hutton Lake Habitat Areas, and the Twin Buttes Lake Habitat Area and Outdoor Classroom.	
Acreage	The Hutton Lake Habitat Area is 640 acres; the Lake Hattie Habitat Area encompasses about 1,291 acres; the Twin Buttes Habitat Area encompasses about 320 acres.	
Values Considered	Wildlife	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance: An area meets the “relevance” criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	NO	NA—All Habitat Areas
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	Lake Hattie and Twin Buttes Lake Habitat Areas—These wetland areas contain potential habitat for the endangered Wyoming toad. The toads are presently located in Moeboer Lake and Mortenson Lake, which are located to the southeast of these areas, and have the potential to travel between lakes via interconnected streams, canals, and wetlands.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	Lake Hattie and Twin Buttes Lake Habitat Areas—These areas are part of a complex of riparian habitat that contains a system of lakes, canals, and wetlands that provide known and potential habitat for the endangered Wyoming toad. Although these areas only contain potential habitat, it is highly possible that the toads can travel through the wetland corridors to Lake Hattie and Twin Buttes Lake.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA—All Habitat Areas

¹ The Laramie Plains Lakes Area encompasses the Lake Hattie and Hutton Lake Habitat Areas and the Twin Buttes Lake Habitat Area and Outdoor Classroom.

Laramie Plains Lakes Area

Importance:

The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	Lake Hattie Habitat Area—This area has potential habitat for the endangered Wyoming toad, which has limited wetland habitat overall. Twin Buttes Lake Habitat Area— The area has potential habitat for the endangered Wyoming toad, and is close enough to the local schools to be used as an outdoor biology classroom and lab.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	Lake Hattie and Twin Buttes Lake Habitat Areas—The unique wetland system of lakes, streams, and canals contains potential habitat for the endangered Wyoming toad. The system has the potential to be threatened by changes in agricultural practices and changes in land use practices; the area is vulnerable to drought.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	NO	NA—All Habitat Areas
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA—All Habitat Areas
Poses a significant threat to human life and safety or to property.	NO	NA—All Habitat Areas

ACEC Proposal Evaluation Form—Blowout Penstemon Area

Blowout Penstemon Habitat Area		
Area Considered		
General Location	T26N, R85W; T26N, R86W; T26N, R86W; T25N, R86W (in various sections)	
General Description	The area includes the sand dunes east of Ferris Mountains and west of Bradley Peak, which includes a unique vegetation community complex containing the endangered blowout penstemon (<i>Penstemon haydenii</i>).	
Acreage	4,120 acres of federal lands	
Values Considered	Wildlife	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance: An area meets the “relevance” criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	NO	NA
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	This area encompasses unique sand dunes that contain steep sandy slopes deposited at the base of granite or sedimentary mountains. The endangered blowout penstemon plant is restricted to these sparsely vegetated, early successional, shifting sand dunes and blow out depressions created by wind erosion. Although some believe the plant to be a native of Nebraska, historic records show that the plant may have been collected during the Hayden Expedition in 1877 when he traveled from Casper to Rawlins through “Sandy Creek Pass” in the “Seminole Hills”, now called the Ferris Mountains.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	This area is composed of a unique terrestrial geological feature that contains the endangered blowout penstemon plant species. The system contains shifting sand dunes that support unique vegetation types.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA
Importance: The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the “importance” criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		

Blowout Penstemon Habitat Area

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	The blowout penstemon is currently Wyoming's only listed endangered plant and as of present, it is only known to occur within this area, other than the populations that are known to occur in Nebraska. The plant was listed s endangered in 1987. The plant is protected under state law in Nebraska, but receives no comparable protection in Wyoming.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	The Wyoming Natural Diversity Data Base (WYNDD) has determined that the plant is critically imperiled because of extreme rarity throughout its range. The plant is endangered and is vulnerable to the following threats: livestock grazing and trampling, changes in habitat quality, over collection, off-road vehicle use, pesticide use, construction activities, and natural threats.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	YES	Endangered species must be protected.
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—White-tailed Prairie Dog Areas²

White-tailed Prairie Dog Habitat Areas		
Area Considered		
General Location	Scattered throughout the RMPPA	
General Description	Eight white-tailed prairie complexes scattered throughout the RMPPA	
Acreage	221,471 total acres, including the Bolton complex (6,717 acres), Dad complex (6,785 acres), Kinney Rim complex (17,828 acres occurring in both the Rawlins FO and Rock Springs FO planning area), Pathfinder complex (12,507 acres occurring in both the Rawlins FO and Lander FO planning area), Saratoga complex (30,132 acres), Seminoe complex (1,725 acres), Shamrock Hills complex (19,781 acres), and Shirley Basin/Medicine Bow complex (139,498 acres) ³	
Values Considered	Wildlife	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance: An area meets the “relevance” criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	NO	NA
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	YES	These white-tailed prairie dog complexes can provide habitat for the endangered black-footed ferret, or serve as a potential reintroduction sites. The white-tailed prairie dog is on the Wyoming BLM's State Sensitive Species list, which is a list of species warranting protection to keep these species from becoming listed. Also on the Sensitive Species list are the mountain plover, ferruginous hawk, swift fox, and burrowing owl, all of which have some dependence on the associated habitat. White-tailed prairie dog complexes also maintain species diversity by providing habitat for these other species.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	White-tailed prairie dog complexes are unique natural systems. Prairie dogs provide a prey source for several species. Burrows constructed by prairie dogs provide shelter for other species; these burrows also can change plant community composition.

² Several white-tailed prairie dog complexes located in the RMPPA were evaluated for relevant and important values requiring special management. These areas include the Dad White-tailed Prairie Dog Complex, Bolton Ranch White-tailed Prairie Dog Complex, Kinney Rim White-tailed Prairie Dog Complex, Pathfinder White-tailed Prairie Dog Complex, Saratoga White-tailed Prairie Dog Complex, Seminoe White-tailed Prairie Dog Complex, Shamrock Hills White-tailed Prairie Dog Complex, and Shirley Basin/Medicine Bow White-tailed Prairie Dog Complex..

³ Acreages from surveys conducted prior to 1995.

White-tailed Prairie Dog Habitat Areas

Relevance Value	Yes/No	Rationale for Determination
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA

Importance:

The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	These white-tailed prairie dog complexes meet the minimum required acreage size (1,000 acres) for a potential reintroduction site of the endangered black-footed ferret.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	These white-tailed prairie dog complexes are some of the largest in the state. White-tailed prairie dogs are considered sensitive in the state, and are identified on the BLM State Sensitive Species List. Also on the Sensitive Species list are the mountain plover, ferruginous hawk, swift fox, and burrowing owl, all of which have some dependence on the associated habitat. Protection of this fragile and unique habitat could provide some protection of other sensitive species.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	YES	These white-tailed prairie dog complexes meet the minimum required acreage size (1,000 acres) for a potential reintroduction site of the endangered black-footed ferret. Protection of these complexes is in compliance with ESA and the mandates of FLPMA.
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form—Historic Trails

Historic Trail Areas		
Area Considered		
General Location	Located throughout RMPPA	
General Description	Historic trade routes, Pony Express route, and freight roads	
Acreage	179,119 total acres (65,129 acres on BLM-administered lands), including a quarter mile buffer of all trails	
Values Considered	Historical/Cultural	
Identification Criteria		
To be considered as a potential ACEC and analyzed in RMP alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance:		
An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	YES	All of the historic trails are eligible for the National Register of Historic Places under Criteria A. Associated sites, including the Washakie Stage Station and Name Rock, are on the National Register. Each trail is unique in that each provides insight into the history of economics, transportation, and settlement in southern Wyoming. As the trails are comprised only of tracks, they are quite sensitive to natural erosional processes as well as human disturbances, including off road vehicle use and development activities. All trails are more than 100 years old, with portions retaining intact ruts and swales.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).	NO	NA
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	NO	NA
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	NO	NA
Importance:		
The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		

Historic Trail Areas

Relevance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	<p>Howard Stansbury used the Overland Trail as an expedition route to explore the Salt Lake Valley in 1850. It later became the Pony Express route from Denver to Fort Bridger in eastern Wyoming where it connected up with the Oregon Trail. Emigrants used the trail in the 1860s rather than the Oregon Trail in response to increasing Indian attacks.</p> <p>The Cherokee Trail originated as an Indian migration route and was later used as a north-south connection to Texas for cattle drives. Emigrants also used it during the 1860s rather than the Oregon Trail in response to increasing Indian attacks.</p> <p>The Rawlins to Baggs Freight Road originated in Rawlins and then traversed south to the Ute Agency in Meeker, Colorado. After the establishment of the UP Railroad in 1868, Rawlins became a center for supplies and travel. Originally the route was used for freight but mail and passenger services were added as the region became more populated. The military used the road to transport troops and supplies from Fort Steele to Meeker during a massacre in 1879.</p> <p>The Rawlins to Fort Washakie Road was created by the military after the establishment of Camp Auger at present day Lander. The military used the route from Rawlins north, as Rawlins was the closest rail and supply point for Camp Auger. Later the route was extended north to Fort Washakie after the Indian Agency was established there. In 1885, a tri-weekly stage was established between Rawlins and Lander, which used the Rawlins to Fort Washakie Trail until 1906.</p>
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	All of the historic trails are eligible for the National Register of Historic Places under Criteria A. Associated sites including the Washakie Stage Station and Name Rock are on the National Register. Each trail is unique in that each provides insight into the history of economics, transportation, and settlement in southern Wyoming. As the trails are comprised only of tracks, they are quite sensitive to natural erosional processes as well as human disturbances including off road vehicle use and development activities. All trails are more than 100 years old, with portions retaining intact ruts and swales. The visual integrity of the trails are threatened by the development of oil, gas, and coal reserves throughout the field office, while increased development threatens to eliminate trail traces.
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	YES	<p>Under FLPMA, the BLM is required to protect the quality of historic resources and archaeological values. Therefore, the BLM is required to protect the trails, although there is no mandate as to what protection measures will entail.</p> <p>All trails are protected under Section 106 of the National Historic Preservation Act that stipulates Federal agencies must consider the effects of any undertaking on any site that is included in or eligible for inclusion in the National Register. There are seven aspects of integrity that must be met for determining if an historic property is eligible for inclusion on the National Register. Portions of each trail currently do not meet the eligibility criteria due to development of roads, installation of gas wells, and natural erosion.</p>
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	NO	NA
Poses a significant threat to human life and safety or to property.	NO	NA

ACEC Proposal Evaluation Form— Cave Creek Cave

Cave Creek Cave Potential ACEC Proposal		
Area Considered		
General Location	Rawlins Field Office: There are two caves that are located on Cave Creek on the northwest portion of Shirley Mountain.	
General Description	The cave system is located in T. 26 N., R. 82 W., section 24 and contains two caves – Cave Creek Cave and Monsoon’s Mudhole.	
Acreage	The caves and associated riparian area contain approximately 640 acres.	
Values Considered	A hibernaculum for BLM Wyoming state sensitive bat species, historic signature room located within Cave Creek Cave, and unique caving recreational opportunities.	
Identification Criteria		
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.		
Relevance: An area meets the “relevance” criterion if it contains one or more of the following:		
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	YES	There is a signature room located within Cave Creek Cave that is large in size and contains numerous signatures dating back to the 1800s. There is a visitor register also located within the signature room.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	YES	The cave system contains summer habitat for five bat species, including two BLM Wyoming State sensitive species – the long-eared myotis and the fringed myotis. The cave also contains a winter hibernaculum for three species, including one BLM Wyoming State sensitive species – the Townsend’s big-eared bat. The Townsend’s big-eared bat is also considered a high priority bat species by the Western Bat Working Group. The cave system provides habitat for bat species that is generally declining throughout the western United States.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	YES	The cave system represents a unique geological feature. The cave system contains unique habitat for bats and serves as both a summer day/night roost and winter hibernaculum for at least six bat species. These habitat types require specific temperatures and humidity levels that are present within this cave system.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous if it is determined through the resource management planning process that it has become part of a natural process).	NO	N/A

Cave Creek Cave Potential ACEC Proposal

Importance:

The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	YES	There are a limited number of natural caves within the area and this cave provides unique habitat for species, specifically for bat species that use the cave in both the summer and winter months.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	YES	The cave system is rare in the Rawlins Field Office area and provides habitat for at least six species of bats, of which three of the species are on the BLM Wyoming State sensitive species list. A bat gate was installed at the entrance of Cave Creek Cave in 2001 to provide for the seasonal closure of the cave between November 1 and April 1 for the protection of hibernating bats.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	YES	The Federal Cave Resources Protection Act (Cave Act) was passed to allow caves to be recognized as a natural resource worthy of active management. BLM developed an MOU with Bat Conservation International (BCI) and issued specific guidance for the management of bats and their habitats on public lands. There is a bat gate located at the entrance of Cave Creek Cave for the protection of bat species, of which three species are identified as sensitive by the BLM.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	NO	N/A
Poses a significant threat to human life and safety or to property	NO	N/A

APPENDIX 23—MEMORANDUM OF UNDERSTANDING BETWEEN BUREAU OF LAND MANAGEMENT AND WYOMING WATER DEVELOPMENT COMMISSION CONCERNING HIGH SAVERY DAM AND RESERVOIR PROJECT

BLM MOU No. WY-030-03-05-073

To define and clarify the management roles and responsibilities of the Bureau of Land Management (BLM) and Wyoming Water Development Commission (WWDC) for certain public lands near to or adjacent to the High Savery Dam and Reservoir Project.

BACKGROUND: The State of Wyoming, through the WWDC, received a Section 404 permit from the U.S. Army Corps of Engineers on December 20, 2000, to construct the Little Snake Supplemental Water Supply Project as the High Savery Dam and Reservoir alternative, hereafter referred to as the High Savery Dam and Reservoir Project. The proposed dam is located on Savery Creek in southern Carbon County, Wyoming. Savery Creek is a tributary to the Little Snake River, which flows into the Yampa River in Colorado. The dam's primary purpose is to provide approximately 12,000 acre-feet of supplemental irrigation water for hay production along Savery Creek and the Little Snake River, primarily during July, August, and September. As a condition of the Section 404 permit, the WWDC is to create a total of 32 acres of wetlands as mitigation for wetlands inundated or filled by the project. Approximately 17.51 acres of wetlands will be created on public land managed by the BLM. The WWDC is also to construct 17 instream erosion control structures as part of the Section 404 requirements. These structures are located in close proximity to the created wetlands and will help control stream entrenchment and lateral movement. The WWDC received right-of-way grant WYW-151862 on April 2, 2001, allowing the WWDC to create the wetlands and to construct the erosion control structures. The wetlands and structures are to be maintained for the life of the project, which is projected to be 100 years.

PURPOSE: The purpose of this Memorandum of Understanding (MOU) is to define and clarify the management roles and responsibilities of the BLM and the WWDC for public lands described as—

- T. 15 N., R. 88 W., 6th P.M., Carbon County, Wyoming
- Section 2: That portion of lots 14 and 15 west of the centerline of Carbon County Road 401
- Section 10: NW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$
- Section 11: That portion of lots 2 and 5 west of the centerline of Carbon County Road 401, NE $\frac{1}{4}$ NW $\frac{1}{4}$
- Section 14: That portion of lots 4, 5, and 6 west of the centerline of Carbon County Road 401, that portion of the SE $\frac{1}{4}$ NE $\frac{1}{4}$ west of the centerline of Carbon County Road 401
- Section 16: Lots 1 and 2
- Section 17: Lots 4, 5, 6, 7, 8, and 9, NW $\frac{1}{4}$ SE $\frac{1}{4}$

- Section 18: Lot 19
- Section 19: Lots 5, 12, 13, and 16.

See Map A23-1.

AUTHORITY: This MOU is made and entered into by and between the BLM and the WWDC in accordance with the following authorities: Title II of the Federal Lands Policy and Management Act of October 21, 1976 (90 Stat. 2747, 43 U.S.C. 1712); Legislation for the High Savery Dam and Reservoir Project, Ch. 2, 2001, Wyo. Sess. Laws.

AREAS OF COOPERATION

Responsibilities of the BLM: The BLM will have overall management responsibility for the public lands addressed in this MOU. All management decisions will be coordinated with the WWDC.

Responsibilities of the WWDC: The WWDC will be responsible for obtaining all the required rights-of-way to construct the project on public lands and will be responsible for the operation and maintenance of the wetlands and erosion control structures in T. 15 N., R. 88 W., 6th P.M., Carbon County, Wyoming, section 2: that portion of lots 14 and 15 west of the centerline of Carbon County Road 401; section 10: NW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$; section 11: that portion of lots 2 and 5 west of the centerline of Carbon County Road 401, NE $\frac{1}{4}$ NW $\frac{1}{4}$; section 14: that portion of lots 4, 5, and 6 west of the centerline of Carbon County Road 401, that portion of the SE $\frac{1}{4}$ NE $\frac{1}{4}$ west of the centerline of Carbon County Road 401; section 16: Lots 1 and 2; section 17: Lots 4, 5, 6, 7, 8, and 9, NW $\frac{1}{4}$ SE $\frac{1}{4}$; and section 18: Lot 19; Section 19: Lots 5, 12, 13, and 16. The BLM will coordinate and cooperate with the WWDC on other resource management activities that will occur on the described public lands. The main areas of resource management concern are discussed below:

Livestock Grazing Management: The WWDC controls the state lands to which the Mexican Meadows allotment grazing permit (#493041) is attached. WWDC has constructed a new fence splitting the Mexican Meadows allotment into two pastures. The south pasture will remain as the Mexican Meadows allotment, with AUMs adjusted to the border of the new fence. A 10-year grazing permit would be reissued with annual grazing authorized by cattle for the same season of use as the previous permit. The north pasture, which contains Savery Creek and the newly created wetlands, will be combined with the lands removed from Stratton's Sandstone Ranches, Savery Creek allotment, into a new allotment called High Savery. It would also contain the dam, reservoir pool area, and other facilities. Public lands and AUMs in this allotment would not be assigned in an active grazing permit. Grazing within the High Savery allotment would be on an occasional basis to meet vegetative management and objectives, rather than for livestock production. If grazing occurs, a grazing lease would be agreed upon by the WWDC and a livestock operator, with use of public lands and AUMs adhering to the WWDC lease. Grazing use would be issued on a temporary, non-renewable basis.

Mineral Resource Management: The BLM will manage the locatable, leaseable, and Common variety mineral resources on the subject public lands. The WWDC and BLM will coordinate very closely to manage the mineral resources to minimize conflicts between mineral development and the High Savery Dam and Reservoir Project. The BLM will get concurrence with WWDC prior to selling any Common variety minerals. The BLM will stipulate any leaseable mineral lease with a no surface occupancy term and condition.

Recreation Management: The BLM and WWDC will manage recreation cooperatively on the subject public lands. For public safety and protection of structures and facilities, access will be restricted to foot access. Accommodations to allow foot access and prevent unwanted vehicular traffic on public lands would be the responsibility of both the WWDC and BLM.

Water, Wetland, and Riparian Management: The WWDC will be responsible for water, wetland, and riparian management on the subject public lands as required by the Section 404 permit for the High Savery Dam and Reservoir Project. Management of these resources will be coordinated with the BLM.

ADMINISTRATION

Term of MOU: This MOU shall become effective upon signature by all participants and shall be in effect until terminated. Any party may withdraw from the MOU by giving 60 days written notice to the other party. Parties agree to meet prior to termination of this MOU. The parties also agree to meet periodically to validate the continued need and also to discuss if any changes to the MOU are necessary.

In carrying out the activities under this MOU, the parties agree to comply with all applicable state and federal laws.

The terms and conditions contained in right-of-way grants WYW-151861 and WYW-151862 granted April 2, 2001, to the WWDC from the BLM will take precedent over this MOU.

That nothing herein shall be construed in any way as limiting the legal authority of the BLM in connection with the proper administration and protection of all properties administered by BLM in accordance with federal laws and regulations.

Payment: No payment shall be made to either party by the other party as a result of this MOU. Any commitments or exchange of value shall be accomplished by separate instrument.

That nothing in this MOU shall be construed as obligating the BLM or WWDC to expend funds in any contract or other obligations for future payments or services in excess of those available or authorized for expenditure.

Amendments: Either party may request changes in this MOU. Any changes, modifications, revisions, or amendments to this MOU, which are mutually agreed upon by and between the parties to this MOU, shall be incorporated by written instrument, executed, and signed by all parties to this MOU.

Entirety of MOU: This MOU, consisting of five pages, represents the entire and integrated MOU between the parties and supersedes all prior negotiations, representations, and agreements, whether written or oral (with the exception of right-of-way grants WYW-151861 and WYW-151862).

Prior Approval: This MOU shall not be binding upon either party unless this MOU has been reduced to writing before performance begins as described under the terms of this MOU, and unless the Wyoming's Attorney General or his representative approves this MOU as to form.

Severability: Should any portion of this MOU be judicially determined to be illegal or unenforceable, the remainder of the MOU shall continue in full force and effect, and either party may renegotiate the terms affected by the severance.

Sovereign Immunity: The U.S. Department of the Interior, Bureau of Land Management, the State of Wyoming, and the Wyoming Water Development Commission do not waive their sovereign immunity by entering into this MOU, and each fully retains all immunities and defenses provided by law with respect to any action based on or occurring as a result of this MOU.

Third-Party Beneficiary Rights: The parties do not intend to create in any other individual or entities the status of third-party beneficiary, and this MOU shall not be construed so as to create such status. The rights, duties, and obligations contained in this MOU shall operate only between the parties to this MOU, and shall inure solely to the benefits of the parties to this MOU. The provisions of this MOU are intended only to assist the parties in performing their obligations under this MOU. The parties to this MOU intend and expressly agree that only parties signatory to this MOU shall have any legal or equitable right to seek to enforce this MOU, to seek any remedy arising out of a party's performance or failure to perform any term or condition of this MOU, or to bring action for the breach of this MOU.

The Federal Government's liability shall be governed by the provisions of the Federal Tort Claims Act (28 U.S.C. 267-80). The State of Wyoming's liability shall be governed by Wyoming State Stat. 1-39-101, et seq., and all other state law.

No member of, or delegation to, Congress or Resident Commissioner shall be admitted to any share or part of this MOU, or to any benefit that may arise there from; but this provision shall not be construed to extend to this MOU if made with a corporation for its general benefit.

Dispute Resolution: The BLM and WWDC agree to comply with this MOU and to take the following actions if the two parties are in conflict over the administration of this MOU.

- Contact, when appropriate, or meet with parties to evaluate the validity of any complaint.
- Conduct an MOU-in-hand review of the activity site within 10 days, or an agreed to time, after receiving the complaint to determine if violations had occurred.
- Evaluate the activity or project site in regards to this MOU to determine the need for any changes, amendments, modifications, or revisions to this MOU.
- Modify, amend, or revise this MOU to assure that any additional mitigation measures, deemed necessary through the MOU, are implemented.
- Throughout the implementation and administration of the MOU, the participants shall comply with all federal statutes relating to nondiscrimination. These include but are not limited to:
 - (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352), which prohibits discrimination on the basis of race, color, handicap, or national origin; and, (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. 1681–1683, and 1685–1686), which prohibits discrimination on the basis of sex.

APPROVALS

In witness whereof, the parties to this MOU through their duly authorized representatives have executed this MOU on the days and dates set out below and certify that they have read, understood, and agreed to the terms and conditions of this MOU as set forth herein.

U.S. Department of the Interior

Bureau of Land Management

Rawlins Field Office

Kurt J. Kotter, Field Manager

Date

Wyoming Water Development Commission

Lawrence M. Besson, Director

Date

APPROVAL AS TO FORM:

S. Jane Caton

Date

Senor Assistant Attorney General

APPENDIX 24—MITIGATION GUIDELINES FOR SPECIAL STATUS PLANTS

Mitigation options to avoid or reduce impacts to Special Status Plants may be limited because of specific habitat requirements or lack of necessary biological information to make such an assessment. Most of the common techniques, such as compensation mitigation or habitat restoration, have proven largely unsuccessful, although seed banking is commonly performed to attempt off-site propagation. Mitigation plans for areas where impacts to these species cannot be avoided are designed to provide special management actions that minimize the overall impact to the species. However, because of the difficulties of providing successful mitigation options, impacts to Special Status Plants are considered less than significant only if no net loss of population size or habitat quality results. "No net loss" is intended to mean that the Bureau of Land Management (BLM) must "ensure that [actions authorized, funded, or carried out by BLM]...affecting the habitat of Special Status Species are carried out in a manner that is consistent with the objectives for managing those species. BLM shall not carry out any actions that would cause any irreversible or irretrievable commitment of resources or reduce future management options for the species involved" (BLM Manual 6840).

An assessment is completed using a sensitive plant model to evaluate the potential habitat for sensitive plant species for a proposed project.

A field visit would be conducted to identify if habitat and/or plants are in the project area. The project is moved or modified to avoid the habitat or the plants; however, if avoidance is not possible, the project is designed to minimize disturbance to the identified habitat or plants. In the rare instance that a project would not be able to be modified to the extent needed to protect the plants, the project would not be authorized.

Once a sensitive species population is identified, the objective of vegetation management for the area is to protect and maintain that plant population by designing treatments to maintain or enhance the habitat to meet the needs of the plant (desired plant community [DPC]).

Inventory for plants and habitat would be a priority to develop management objectives that are designed to maintain or enhance habitat for the plant. As unique plant communities, such as the sand hills bitterbrush/silver sagebrush, cushion plant, and chain lakes alkaline wetland communities, are identified, protection measures are developed.

APPENDIX 25—VISUAL RESOURCE MANAGEMENT

Visual resource management (VRM) is the system by which the Bureau of Land Management (BLM) classifies and manages scenic values and visual quality of public lands (BLM Land Use Planning Handbook H-1601-1, Appendix C). The system is based on research that has produced ways of assessing the natural attributes of the landscape in objective terms. After inventory and evaluation, lands are given visual ratings (management classes) that determine the amount of modification allowed to the basic elements of the landscape.

INVENTORY AND EVALUATION OF VISUAL RESOURCE MANAGEMENT

The visual resource inventory process (BLM Handbook 8410-1) provides BLM managers with a means for determining visual values. The inventory consists of a scenic quality evaluation, sensitivity level analysis, and a delineation of distance zones. Based on these three factors, BLM-administered lands are placed into one of four visual resource inventory classes. These inventory classes represent the relative value of the visual resource.

VISUAL RESOURCE MANAGEMENT CLASSES

VRM classes represent the degree of acceptable visual change within a characteristic landscape. A class is based on the physical and sociological characteristics of any given homogeneous area and serves as a management objective. The four classes are described below.

Class I

- Preserves the existing character of the landscape
- Provides for natural ecological changes only
- Does not preclude very limited management activity
- Allows only an extremely low level of change to the characteristic landscape that must not attract attention
- Includes primitive areas, wilderness study areas, some natural areas, some Wild and Scenic Rivers, and other similar areas where landscape modification activities should be restricted.

Class II

- Retains the existing character of the landscape
- Allows management activities to be seen; however, activities should not attract the attention of the casual observer
- Requires changes to repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape
- Requires modifications to a proposal if the proposed change cannot be adequately mitigated to retain the character of the landscape.

Class III

- Partially retains the existing character of the landscape
- Requires that areas where a management activity causes changes in the basic elements (form, line, color, or texture) do not dominate the view of the casual observer
- Requires that changes remain subordinate to the visual strength of the existing character.

Class IV

- Allows management activities to dominate the view and remain the major focus of viewer attention
- Allows areas where changes are subordinate to the original composition and character; however, these changes should reflect what could be a natural occurrence within the characteristic landscape.

APPENDIX 26—ROAD MANAGEMENT AND CLOSURES IN SENSITIVE HABITAT AREAS

The following identifies criteria for limiting access and roads within the following areas that will be considered for spatial and temporal closure or limited access. This list is not all-inclusive, and other criteria may be added on a case-by-case basis when identified.

CRITERIA FOR CLOSURE

- Critical and other high-value habitats associated with threatened and/or endangered (T&E), proposed, or candidate species
- Crucial big game winter habitat
- Critical and other high-value habitats for Bureau of Land Management (BLM) Wyoming State Sensitive Species
- Raptor concentration areas
- Parturition habitats
- Greater sage-grouse/sharp-tailed grouse winter habitat and leks
- Riparian areas, sensitive migration corridors/transitional ranges, and/or other wildlife habitat areas.

METHODS OF CLOSURE

Spatial (Area) Closures, Limits to Surface Disturbing Activities

- Restriction of road development in crucial winter range, parturition areas, and other sensitive wildlife habitats
- Signing
- Gating
- Road closures using berms, ripping, and/or impediments.

Temporal (Seasonal) Closures, Limits to Disruptive Activities During Critical Times

- Remote monitoring of facilities
- Temporary closure of sensitive wildlife habitat during specific time periods (such as, but not limited to, crucial winter range, raptor nesting, breeding, and migration time periods)
- Restriction on activities during diurnal and nocturnal time periods

- Limitations on the amount of human activity (such as requiring carpooling to a job site, modifying work activities) in sensitive wildlife habitat areas
- Signing.

Permanent Closures

- Barriers to access
- Reclamation of roads
- Signing.

APPENDIX 27—PROCEDURES FOR PROCESSING APPLICATIONS FOR PERMIT TO DRILL

Upon receipt, an application (Application for Permit to Drill [APD] or Notice of Staking [NOS]) is posted for a 30-day public review. The APD is checked for completeness by the fluids minerals staff and entered into various databases. Bonding and lease adequacy, including any inclusions in other administrative categories such as units or communitization agreements, is determined. Spacing and location requirements are within the jurisdiction of the Wyoming Oil and Gas Conservation Commission (WOGCC), and these requirements are checked as described in the memorandum of understanding (MOU) between the Bureau of Land Management (BLM) and WOGCC. Sometimes these requirements result in hearings before the WOGCC that delay the APD approval process. Any discrepancies in adjudication, wildlife, cultural resources, and any perceived deficiency in the surface use plan or drilling plan is communicated to the operator within 7 days of the receipt of the APD. The operator has 45 days to correct these deficiencies or the APD is returned.

In conjunction with posting an APD, specialist requests are sent to each resource specialist to review the project's site-specific details to determine conformance with the Resource Management Plan (RMP) and any other environmental plan (Environmental Impact Statement [EIS] or Environmental Assessment [EA]) that encompasses the project location. These specialists are paleontology/geology, cultural, range (grazing), soils/water (hydrology), realty, transportation, and wildlife. Each specialist is intimately familiar with specific resource attributes within the various plans. In almost all cases, each site-specific location is visited by the specialists to identify the precise character at that site. In some cases, it is necessary to obtain more specialized input from outside agencies, such as U.S. Fish and Wildlife Service (UFWFS) and State Historic Preservation Office (SHPO), and these consultations are included in the appropriate specialist's comments. The individual specialist's expertise and judgment is communicated to the fluid minerals natural resource specialist (NRS), who compiles the information and generates an appropriate site-specific National Environmental Policy Act (NEPA) document. In this process, the NRS reviews the proposal in the context of existing environmental documents and the RMP to determine whether existing documentation is adequate. If existing documentation is adequate, the NRS prepares an Administrative Determination (AD). If existing documentation is insufficient or nonexistent, the NRS prepares NEPA documentation as needed, using the appropriate format (see BLM NEPA Handbook. H-1790-1).

The NRS also generates reasonable conditions of approval (COA), based on sound science and each specialist's requirement to protect or mitigate the various resources (see Wyoming Instruction Memorandum WY-90-346). The COAs are included in the approved application as a contractual requirement for that specific project. Because the COAs represent decisions of the authorized officer, they can be appealed if the operator considers the COAs too onerous to exercise the benefits of the lease. Under the Energy Policy and Conservation Act (EPCA), COAs are also be continuously evaluated to determine their effectiveness and necessity.

In specified seasonally restricted areas, an approved APD generally includes a seasonal COA because (1) the APD is valid for 1 year from date of issuance and BLM does not control the start-up date for project activity and (2) field conditions during the crucial period cannot be predicted at the time of APD approval. The need for a COA must be documented in an appropriate site-specific NEPA document and must consider the reasonableness of the restriction.

PROCEDURES FOR HANDLING SPLIT ESTATE REQUESTS FOR ACCESS ON FEDERAL SURFACE

A right-of-way (ROW) grant is required for access roads and well sites on federal surfaces overlying state or fee minerals. The procedure to acquire this ROW and other cooperative regulatory requirements is defined in an MOU between BLM and the State of Wyoming WOGCC, dated September 13, 1994, BLM MOU WY920-94-09-79. The MOU was entered into by and between BLM and the WOGCC in accordance with the Federal Land Policy and Management Act (FLPMA). The other cooperative regulatory requirements are underground injection, units and communitization agreements, well spacing, and geophysical operations. Appendix 2-I-A-3 of the MOU states that the BLM agrees to “Notify the Commission within 10 working days after receipt of the APD by the appropriate BLM office of any critical environmental problems regarding surface operations (i.e., big game crucial winter range, known cultural resources, presence of threatened and endangered species, etc.). Prior to notifying the commission, critical environmental problems will be confirmed and justified through on-site inspections by the BLM to verify potential problems. The existence of big game crucial winter range will not be used as the sole reason for denying access to a location.”

The ROW grant is administered by lands and realty and is essentially processed in same manner as an APD. Specialist requests are sent to each resource specialist to review the project’s site-specific requirements to determine conformance with the RMP and any other environmental plan (EIS or EA) that encompasses the project location. After the resource specialists’ requests are returned, the realty specialist compiles the information and generates an appropriate site-specific NEPA document. In this process, the realty specialist reviews the proposal in the context of existing environmental documents and the RMP to determine whether existing documentation is adequate. If existing documentation is adequate, the realty specialist prepares an AD. If existing documentation is insufficient or nonexistent, the realty specialist prepares NEPA documentation as needed, using the appropriate format (see BLM NEPA Handbook H-1790-1). The realty specialist generates stipulations and attaches these to the ROW grant. These grants are, in most cases, written for 30 years, and may have processing cost reimbursement and rental fee requirements.

APPENDIX 28—PLANT COMMON AND SCIENTIFIC NAMES

This is a partial list of plants' common and scientific names, provided to save space in document text, and is in no way intended to be a comprehensive list of species found within the Rawlins Field Office (RFO) area.

Table A28-1. Upland Plant Common and Scientific Names With Synonyms, Following Dorn, 2001, *Vascular Plants of Wyoming*, Third Edition

Common Name	Scientific Name (Dorn 2001)	Scientific Name Synonym(s)
Grass-Like Plants		
threadleaf sedge	<i>Carex filifolia</i>	
elk sedge	<i>Carex geyeri</i>	
Baltic rush	<i>Juncus balticus</i>	
Grasses		
redtop bent	<i>Agrostis alba</i>	
meadow foxtail	<i>Alopecurus aequalis</i>	
threeawn	<i>Aristida spp.</i>	
sideoats grama	<i>Bouteloua curtipendula</i>	
blue grama	<i>Bouteloua gracilis</i>	
hairy grama	<i>Bouteloua hirsuta</i>	
smooth brome	<i>Bromus inermis</i>	
mountain brome	<i>Bromus marginatus</i>	
cheatgrass	<i>Brumus tectorum</i>	
buffalo grass	<i>Buchloe dactyloides</i>	
bluejoint reedgrass	<i>Calamagrostis canadensis</i>	
pine reedgrass	<i>Calamagrostis rubescens</i>	
prairie sandreed	<i>Calamovilfa longifolia</i>	
oatgrass	<i>Danthonia spp.</i>	
tufted hairgrass	<i>Deschampsia cespitosa</i>	
inland saltgrass	<i>Disticalis stricta</i>	<i>Disticalis spicata</i>
Canada wildrye	<i>Elymus canadensis</i>	
basin wildrye	<i>Elymus cinereus</i>	
bottlebrush squirreltail	<i>Elymus elymoides</i>	<i>Sitanian hystrix</i>
blue wildrye	<i>Elymus glaucus</i>	
thickspike wheatgrass	<i>Elymus lanceolatus</i>	<i>Agropyron dasystachyum</i>
western wheatgrass	<i>Elymus smithii</i>	<i>Agropyron smithii - Pascopyrum smithii</i>
blue bunch wheatgrass	<i>Elymus spicatus</i>	<i>Agropyron spicatum - Pseudoroegneria spicata</i>

Common Name	Scientific Name (Dorn 2001)	Scientific Name Synonym(s)
slender wheatgrass	<i>Elymus trachycoulus</i>	<i>Agropyron trachycaulum</i>
Idaho fescue	<i>Festuca idahoensis</i>	
foxtail barely	<i>Hordium jubatum</i>	
prairie junegrass	<i>Koeleria macrantha</i>	<i>Koeleria cristata</i>
king spike fescue	<i>Leucapoa kingii</i>	
onion grass	<i>Melica bulbosa</i>	
slimstem muhly	<i>Muhlenbergia filiculmis</i>	
Sandhill muhly	<i>Muhlenbergia pungens</i>	
Indian ricegrass	<i>Oryzopsis hymenoides</i>	
alpine timothy	<i>Phleum alpinum</i>	
timothy	<i>Phleum pratense</i>	
big bluegrass	<i>Poa ampla</i>	
mutton bluegrass	<i>Poa fendleriana</i>	<i>Poa longiligula</i>
Wheeler bluegrass	<i>Poa nervosa</i>	
Kentucky bluegrass	<i>Poa pratensis</i>	
Sandberg bluegrass	<i>Poa secunda</i>	<i>Poa sandbergii</i>
alkali grass	<i>Puccinellia spp.</i>	
blowout grass	<i>Redfieldia flexuosa</i>	
little bluestem	<i>Schizachyrium scoparium</i>	
alkali cordgrass	<i>Spartina gracilis</i>	
alkali sacatoon	<i>Sporobolus airoides</i>	
sand dropseed	<i>Sporobolus cryptandrus</i>	
Columbian needlegrass	<i>Stipa columbiana</i>	
needle-and-thread	<i>Stipa comata</i>	
green needlegrass	<i>Stipa viridula</i>	
Forbs		
false dandelion	<i>Agoseris glouca</i>	
wild onion	<i>Alium testile</i>	
columbine	<i>Aquilegia spp.</i>	
Hooker sandwart	<i>Arenaria hookeri</i>	
arnica	<i>Arnica spp.</i>	
aster	<i>Aster spp.</i>	
milkvetch	<i>Astragalus spp.</i>	
balsam root	<i>Balsamorhiza sagittata</i>	
segolily	<i>Calochartus nuttallii</i>	
harebell	<i>Campanula parryi</i>	
Indian paintbrush	<i>Castelgia spp.</i>	

Common Name	Scientific Name (Dorn 2001)	Scientific Name Synonym(s)
chickweed	<i>Cerastium brachypodum</i>	
larkspur	<i>Delphinium spp.</i>	
field horsetail	<i>Equisitum arvense</i>	
buckwheat	<i>Eriogonum spp.</i>	
elkweed	<i>Frasera speciosa</i>	
bedstraw	<i>Galium spp.</i>	
halogeton	<i>Halogeton glomeratus</i>	
mountain iris	<i>Iris missouriensis</i>	
pepperweed	<i>Lepidium densiflorum</i>	
licorice-root	<i>Ligusticum tenuifolium</i>	
biscuitroot	<i>Lomatium grayi</i>	
lupine	<i>Lupinus spp.</i>	
bluebell	<i>Mertensia spp.</i>	
Oregon grape	<i>Mohonia repens</i>	
pricklypear cactus	<i>Opuntia polyacantha</i>	
loco weed	<i>Oxytropis spp.</i>	
penstemon	<i>Penstemon spp.</i>	
phlox	<i>Phlox spp.</i>	
slimflower scurfpea	<i>Psoralea tenuiflora</i>	
groundsel	<i>Senecio spp.</i>	
checker mallow	<i>Sidalcea candida</i>	
checker mallow	<i>Sidalcea neomexicana</i>	
globe mallow	<i>Sphaeralcea coccinea</i>	
seabligh	<i>Suada nigra</i>	
mountain pea	<i>Thermospsis spp.</i>	
clover	<i>Trifolium spp.</i>	
stinging nettle	<i>Urtica dioica</i>	
vetch	<i>Vicia spp.</i>	
violet	<i>Viola spp.</i>	
woody aster	<i>Xylarhira glabriuscula</i>	
yucca	<i>Yucca glouca</i>	
Shrubs		
service berry	<i>Amelanchier alnifolia</i>	
silver sagebrush	<i>Artemisia cana</i>	
sand sagebrush	<i>Artemisia filifolia</i>	
fringe sage wort	<i>Artemisia frigida</i>	
alkali sagebrush	<i>Artemisia longifloia</i>	

Common Name	Scientific Name (Dorn 2001)	Scientific Name Synonym(s)
black sagebrush	<i>Artemisia nova</i>	
birdsfoot sagebrush	<i>Artemisia pedatifida</i>	
bud sagebrush	<i>Artemisia spinescense</i>	
Wyoming big sagebrush	<i>Artemisia tridentata</i> var. <i>wyomingensis</i>	
Basin big sagebrush	<i>Artemisia tridentata</i> var. <i>tridentata</i>	
mountain big sagebrush	<i>Artemisia tridentata</i> var. <i>vaseyana</i>	
shadescale	<i>Atriplex conferifolia</i>	
Gardener saltbush	<i>Atriplex gardeneri</i>	
true mountain mahogany	<i>Cercocarpus montanus</i>	
green rabbitbrush	<i>Chrysothamnus viscidiflorus</i>	
redosier dogwood	<i>Cornus sericea</i>	<i>Cornus stolonifera</i>
rubber rabbitbrush	<i>Ericameria nauseosa</i>	<i>Chrysothamnus nauseosus</i>
spinny hopsage	<i>Grayia spinosa</i>	
broom snakeweed	<i>Gutierrezia sarothorea</i>	
common juniper	<i>Juniperus communis</i>	
winterfat	<i>Krascheninnikovia lanata</i>	<i>Ceratoides lanata</i> - <i>Eurosia lanata</i>
shrubby cinquefoil	<i>Pentaphylloides floribunda</i>	<i>Potentilla fruticosa</i>
chokecherry	<i>Prunus virginiana</i>	
bitterbrush	<i>Pursha tredentata</i>	
golden current	<i>Ribes aureum</i>	
wax current	<i>Ribes cereum</i>	
mountain gooseberry	<i>Ribes inerme</i>	
sticky current	<i>Ribes viscosissimum</i>	
Woods rose	<i>Rosa woodsii</i>	
Bebb's willow	<i>Salix bebbiana</i>	
Booth willow	<i>Salix boothii</i>	
yellow willow	<i>Salix eriocephala</i> var. <i>watsonii</i>	<i>Salix lutea</i>
coyote willow	<i>Salix exigua</i>	
Geyer willow	<i>Salix geyeriana</i>	
whiplash willow	<i>Salix lasiandra</i>	
planeleaf willow	<i>Salix plantifolia</i>	
Scouler's willow	<i>Salix scouleriana</i>	
greasewood	<i>Sarcobatus vermiculatus</i>	
russet buffalo berry	<i>Shepherdia argentea</i>	
buffaloberry	<i>Shepherdia canadensis</i>	
snow berry	<i>Symphoricarpos albus</i>	
horsebrush	<i>Tetradymia canescens</i>	

Common Name	Scientific Name (Dorn 2001)	Scientific Name Synonym(s)
Trees		
subalpine fir	<i>Abies lasiocarpa</i>	
water birch	<i>Betula occidentalis</i>	
Utah juniper	<i>Juniperous osteosperma</i>	
Rocky Mountain juniper	<i>Juniperous scopulorum</i>	
Engleman spruce	<i>Picia englemannii</i>	
logdepole pine	<i>Pinus contorta</i>	
limber pine	<i>Pinus flexus</i>	
ponderosa pine	<i>Pinus ponderosa</i>	
narrow leaf cottonwood	<i>Populus angustifolia</i>	<i>Populus sargentii</i>
balsam poplar	<i>Populus balsamifera</i>	
plain cottonwood	<i>Populus deltoida</i>	
Fremont cottonwood	<i>Populus fremontii</i> *	
quaking aspen	<i>Populus tremuloides</i>	
Douglas fir	<i>Pseudotsuga menziesii</i>	

* not included in Dorn 2001

Table A28-2. Plant Species Typical of Wetlands and Wet Meadows in Wyoming*

Species	Scientific Name
Forbs	
horsetail	<i>Equisetum spp.</i>
iris	<i>Iris missouriensis</i>
Grasses	
northern reedgrass	<i>Calamagrostis inexpansa</i>
tufted hairgrass	<i>Deschampsia cespitosa</i>
slender wheatgrass	<i>Elymus trachycaulus</i>
smooth brome	<i>Bromus inermis</i>
saltgrass	<i>Distichlis stricta</i>
orchard grass	<i>Dactylis glomerata</i>
meadow barley	<i>Hordeum brachyantherum</i>
Kentucky bluegrass	<i>Poa pratensis</i>
foxtail barley	<i>Hordeum jubatum</i>
Basin wildrye	<i>Elymus cinereus</i>
alkaligrass	<i>Puccinellia nuttalliana</i>
alkali sacaton	<i>Sporobolus airoides</i>
alkali cordgrass	<i>Spartina gracilis</i>

Species	Scientific Name
redtop	<i>Agrostis alba</i>
mat muhly	<i>Muhlenbergia richardsonis</i>
Grass-Like	
cattail	<i>Typha sp.</i>
water sedge	<i>Carex aquatilis</i>
field sedge	<i>Carex praegracilis</i>
Ross' sedge	<i>Carex rossii</i>
needleleaf sedge	<i>Carex stenophylla</i>
beaked sedge	<i>Carex urticulata</i>
alkali bulrush	<i>Bolboschoenus maritimus</i>
spike rush	<i>Eleocharis palustris</i>
tulerush	<i>Schoenoplectus tabernaemontani</i>
Baltic rush	<i>Juncus balticus</i>
Shrubs	
Wood's rose	<i>Rosa woodsii</i>
silver sagebrush	<i>Artemisia cana</i>
silver buffaloberry	<i>Shepherdia argentea</i>
shrubby cinquefoil	<i>Potentilla fruticosa</i>
golden currant	<i>Ribes aureum</i>
gooseberry	<i>Ribes lacustre</i>
water birch	<i>Betula occidentalis</i>
Douglas hawthorn	<i>Crataegus douglasii</i>
willow species	<i>Salix species</i>
dogwood	<i>Cornus stolonifera</i>
cottonwood species	<i>Populus species</i>

* This table does not represent a complete list of wetland plants in the Resource Management Plan Planning Area (RMPPA). The complete list of plant species that occur in wetlands is published by the U.S. Fish and Wildlife Service (USFWS), U.S. Department of the Interior, and is used to evaluate whether the vegetation present meets the requirement of a jurisdictional wetland. The RMPPA is located in regions 9 and 4; the majority of the RMPPA is in region 9 (USFWS 1998).

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- Dorn, R. D., 2001. Vascular plants of Wyoming, third ed. Mountain West Publishing, Cheyenne, Wyoming.
- USFWS, 1988. National List of Plant Species that Occur in Wetlands: Northwest (Region 9), 1993 Supplement to Biological Report 88 (26.9).

APPENDIX 29—RANGE ALLOTMENT INFORMATION

Table A29-1. Range Allotment Information for the Rawlins RMPPA

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00301	PATHFINDER	9,335	1,920	6,503	2,701	20,459	1,506	CATTLE	1-May	31-Jan	ROTATION
00302	LITTLE CANYON CREEK	1,424	0	720		2,144	165	CATTLE	1-May	30-Oct	DEFERRED ROTATION
00303	CANYON CREEK	5,340	3,400	3,680		12,420	857	CATTLE/ HORSE	1-May	30-Nov	PERMIT LONG
00304	WAGON TONGUE	775	640	8		1,423	123	CATTLE	1-Jun	7-Jul	PERMIT LONG
00305	CAMP CREEK	3,217	1,440	4,040		8,697	706	CATTLE	1-Jun	30-Nov	PERMIT LONG
00306	KIRK RANCH	3,395	1,306	404		5,105	365	CATTLE	1-Nov	6-Mar	PERMIT LONG
00307	BATES HOLE	14,381	1,722	6,094		22,197	2,085	CATTLE	1-May	31-Oct	DEFERRED ROTATION
00309	MOSS AGATE	6,355	548	85		6,988	893	CATTLE/ SHEEP	1-Jun	10-Oct	PERMIT LONG
00310	ANTELOPE SPRINGS	2,977	0	40		3,017	578	SHEEP	1-Jun	30-Sep	PERMIT LONG
00311	BATES BENCHMARK	4,262	1,360	720		6,342	625	CATTLE/ SHEEP	1-Jun	10-Oct	PERMIT LONG
00312	7E RANCH	8,845	640	4,888		14,373	1,370	CATTLE/ SHEEP	1-Mar	28-Feb	YEARLONG PERMIT
00313	WEST LITTLE MEDICINE	6,922	640	40		7,602	994	CATTLE	1-May	31-Oct	PERMIT LONG
00314	MINE	4,050	130	5,705		9,885	525	CATTLE	1-May	31-Oct	PERMIT LONG
00315	INDIAN SPRINGS	2,851	0	2,071		4,922	433	CATTLE	1-Jun	15-Oct	DEFERRED ROTATION
00316	DRY CREEK RIM	25,750	4,200	14,082		44,032	4,346	CATTLE	15-May	31-Oct	PERMIT LONG
00317	UPPER DRY CREEK	5,712	580	1,470		7,762	1,044	CATTLE	1-Jun	5-Oct	PERMIT LONG
00318	SHIRLEY RIDGE	7,693	640	680		9,013	981	CATTLE/ HORSE	11-May	30-Sep	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00319	EAST LITTLE MEDICINE	3,141	520	9,710		13,371	3,675	CATTLE/ SHEEP	1-May	31-Oct	PERMIT LONG
00320	LEO	9,121	640	2,993	2,327	15,081	3,320	CATTLE	15-Apr	14-Nov	DEFERRED ROTATION
00321	DRY CREEK	9,861	640	4,520		15,021	1,213	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
00322	SPRING CREEK	10,387	640	2,904		13,931	1,998	CATTLE	1-Mar	31-Oct	REST ROTATION
00323	BLACK CANYON	11,067	1,082	3,020	3,288	18,457	2,106	CATTLE	26-Apr	25-Nov	DEFERRED ROTATION
00324	PALMER-NELSON	4,241	680	2,830		7,751	898	CATTLE	1-Jun	31-Oct	PERMIT LONG
00325	CADY	185	0	148		333	20	CATTLE	1-May	31-Oct	PERMIT LONG
00326	BEAVER CREEK	2,385	358	3,464		6,207	826	CATTLE	15-Jul	10-Oct	DEFERRED ROTATION
00327	SCHOOL SECTION	816	609	95		1,520	222	CATTLE	1-Jul	31-Dec	PERMIT LONG
00328	SULLIVAN	108,640	14,738	69,275		192,653	20,618	CATTLE	1-May	15-Oct	DEFERRED ROTATION
00329	LOST CREEK	2,895	43	0		2,938	450	CATTLE	1-May	1-Sep	DEFERRED ROTATION
00330	HOUSE GULCH	2,395	481	1,446		4,322	631	CATTLE	1-Mar	15-Oct	DEFERRED ROTATION
00331	UPPER LOST CR.	589	0	163		752	120	CATTLE	1-May	2-Oct	PERMIT LONG
00332	THORNTON PLACE	2,852	0	8		2,860	374	CATTLE	1-Jun	30-Sep	PERMIT LONG
00333	SOUTH BENNETT (NO.)	3,466	0	0	1,059	4,525	772	CATTLE/ SHEEP	1-Jun	30-Nov	PERMIT LONG
00334	CORRAL CREEK	5,710	1,120	1,000		7,830	1,181	CATTLE/ SHEEP	1-May	30-Nov	PERMIT LONG
00335	SHIRLEY MOUNTAIN	18,308	1,920	12,256		32,484	3,655	CATTLE/ SHEEP	1-May	31-Oct	PERMIT LONG
00336	MUD SPRINGS	1,193	95	1,520		2,808	927	CATTLE	11-May	30-Sep	PERMIT LONG
00337	PETRIFIED FOREST	8,311	600	3,942		12,853	1,423	CATTLE	1-May	31-Oct	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00338	ANDA	9,184	624	4,363		14,171	1,691	CATTLE	1-Jun	15-Oct	DEFERRED ROTATION
00339	GRASSHOPPER	40	0	0		40	10	CATTLE	1-May	31-Oct	PERMIT LONG
00340	HORSE SPRINGS	5,228	2,919	3,377		11,524	1056	CATTLE	1-May	31-Oct	DEFERRED ROTATION
00349	PEDRO MOUNTAINS	3,405	0	0		3,405	0	CATTLE			NO PERMIT
00350	LOST CREEK RANCH	166	0	885		1,051	18	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
00401	AIRPORT	840	640	0		1,480	249	CATTLE	15-May	15-Nov	DEFERRED ROTATION
00402	ANTELOPE	1,394	80	1,480		2,954	319	CATTLE	1-Jun	5-Oct	PERMIT LONG
00403	BAGGS SUB-UNIT	3,985	0	4,426		8,411	264	CATTLE	1-Apr	15-Jun	ROTATION
00404	ANTELOPE DRAW	3,986	0	0		3,986	1,391	CATTLE	1-Apr	30-Sep	DEFERRED ROTATION
00405	BEAVER DAMS	3,565	1,342	480		5,387	682	CATTLE/ SHEEP	1-Jun	30-Sep	DEFERRED ROTATION
00406	BODEN	1,452	330	160		1,942	189	CATTLE	1-Jun	30-Sep	PERMIT LONG
00407	CENTENNIAL CR.	2,776	598	98		3,472	771	CATTLE	15-Jun	30-Sep	DEFERRED ROTATION
00408	CHEROKEE	63,765	3,663	1,539		68,967	7,562	CATTLE/ SHEEP	15-Apr	15-Dec	ROTATION
00409	COTTONWOOD DRAW	2,111	640	706		3,457	360	CATTLE	1-Jun	18-Sep	PERMIT LONG
00410	COYOTE DRAW	4,376	0	53		4,429	472	CATTLE	1-Jun	15-Sep	DEFERRED ROTATION
00411	CUSHING	5,653	84	0		5,737	1,178	CATTLE	10-May	23-Jun	PERMIT LONG
00412	DEEP GULCH	26,954	4,330	4,042	126	35,452	3,597	CATTLE/ SHEEP	15-May	27-Nov	DEFERRED ROTATION
00413	DIRTY MAN	228	0	560		788	20	CATTLE	25-Jun	4-Oct	DEFERRED ROTATION
00414	DISH	15,700	2,330	2,400		20,430	4,262	CATTLE	25-May	25-Oct	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00415	DOTY MOUNTAIN	59,504	1,600	22,904		84,008	6,976	CATTLE	1-Apr	1-Dec	DEFERRED ROTATION
00417	GRIZZLY	27,533	9,332	1,226		38,091	5,280	CATTLE/ SHEEP	1-Mar	30-Oct	ROTATION
00418	HARTT CREEK	3,067	920	3,957		7,944	681	CATTLE	1-Jun	30-Sep	DEFERRED ROTATION
00419	JACK CREEK	1,030	1811	5,818		8,659	420	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
00420	LITTLE JACK CREEK	2,244	975	1,009		4,228	307	CATTLE/ SHEEP	1-Jun	7-Sep	ROTATION
00421	MCCARTY CANYON	3,104	5,081	1,095		9,280	465	CATTLE	15-May	25-Sep	DEFERRED ROTATION
00422	METHODIST	4,591	1,095	867		6,553	1,476	CATTLE	15-Jun	20-Oct	SPLIT SEASON
00423	MIDDLEWOOD HILL	14,347	3,072	104		17,523	3,074	CATTLE	1-May	31-Oct	DEFERRED ROTATION
00425	MORGAN CREEK	4,060	1,715	4,639		10,414	1,187	CATTLE	30-May	1-Oct	DEFERRED ROTATION
00426	MORGAN RANCH	2,780	250	1,900		4,930	263	CATTLE/ SHEEP	30-May	8-Nov	DEFERRED ROTATION
00427	NORTH SPRING CREEK	227	0	1,449		1,676	25	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
00428	CHEROKEE CREEK	866	665	3,095		4,626	137	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
00429	RICH	5,875	0	175		6,050	1,158	CATTLE	1-May	30-Jun	PERMIT LONG
00430	SAGE CREEK	13,763	6,946	8,724		29,433	3,156	CATTLE	10-May	25-Sep	DEFERRED ROTATION
00431	SAVERY CREEK	2,821	1,035	6,332		10,188	436	CATTLE	10-May	15-Oct	DEFERRED ROTATION
00432	SNOW CREEK	5,249	0	0		5,249	1,278	CATTLE/ SHEEP	1-Jun	30-Sep	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00433	SULPHUR SPRINGS	12,832	800	9,120		22,752	2,096	CATTLE	1-May	4-Oct	DEFERRED ROTATION
00434	TWIN GROVES	200	965	6,645		7,810	40	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
00435	WILD COW	7,868	867	80		8,815	1,760	CATTLE	16-Jun	30-Nov	DEFERRED ROTATION
00436	WINDMILL	3,264	520	0		3,784	600	CATTLE	10-May	13-Jul	PERMIT LONG
00437	HILL ISO TR	140	0	0		140	30	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
00438	SPRING CR ISO TR	200	0	1,400		1,600	30	CATTLE	1-Oct	28-Feb	DORMANT SEASON
00440	BARTLETT ISO TR	425	0	0		425	71	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
00441	NORTH PASTURE	400	0	120		520	57	CATTLE	15-Sep	14-Nov	PERMIT LONG
00442	DAD	433	0	0		433	94	CATTLE	1-Jun	15-Jun	ROTATION
00443	EAST MUDDY	5,484	15	655		6,154	301	SHEEP	1-Mar	10-Apr	ROTATION
00444	TRUCK DRIVERS CREEK	170	0	0		170	30	CATTLE	15-May	14-Oct	PERMIT LONG
00446	ANTELOPE ISOLATED TR	120	0	0		120	23	CATTLE	1-May	31-Oct	PERMIT LONG
00448	J. O. PASTURES	418	0	718		1,136	61	CATTLE/ SHEEP	1-Sep	31-Dec	DEFERRED ROTATION
00449	SIERRA MADRE RANCH	40	0	0		40	5	CATTLE	1-Jun	31-Oct	PERMIT LONG
00450	STANDARD	11,626	640	1,010		13,276	3,530	CATTLE/ SHEEP	1-Mar	31-Oct	PERMIT LONG
00451	JIM BERGER	657	0	0		657	91	CATTLE	10-May	10-Aug	PERMIT LONG
00453	THOMAS RYAN	371	0	0		371	53	CATTLE	25-May	30-Sep	PERMIT LONG
00456	DEEP CREEK PASTURE	1,571	390	4,211		6,172	635	CATTLE/ SHEEP	1-May	31-Oct	DEFERRED ROTATION

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00457	WEST WILD COW	3,502	333	0		3,835	437	CATTLE	16-Jun	30-Nov	DEFERRED ROTATION
00505	CHEROKEE TRAIL	11,176	0	0		11,176	1,459	CATTLE/SHEEP	1-Mar	31-Dec	DEFERRED ROTATION
00514	LITTLE ROBBER	480	0	0		480	250	CATTLE	1-May	30-Sep	SPLIT SEASON
00605	DALEY RANCH	11,305	1,280	13,498		26,083	959	CATTLE	1-May	31-Oct	ROTATION
00606	DOOLITTLE	280	0	390		670	90	CATTLE/SHEEP	1-May	31-Oct	DEFERRED ROTATION
00630	CANAL	160	0	1,600		1,760	42	CATTLE	1-May	15-Oct	PERMIT LONG
00687	SMILEY DRAW	1,345	0	2,195		3,540	226	CATTLE	1-Jun	10-Nov	DEFERRED ROTATION
00688	UPPER SAVERY CREEK	340	0	646		986	40	CATTLE	1-Jun	30-Sep	ROTATION
00689	WEST LOCO	120	40	760		920	30	CATTLE	1-Jun	31-Oct	PERMIT LONG
00690	COTTONWOOD CREEK	200	0	4,840		5,040	34	CATTLE	1-Apr	30-Nov	ROTATION
00699	MIDDLE CEDAR CREEK	184	640	0		824	39	CATTLE	1-May	31-Oct	PERMIT LONG
00701	BELL SPRINGS	4,506	0	4,388		8,894	346	CATTLE	1-Mar	31-Dec	ROTATION
00703	EAST CITY LIMITS	5,350	0	7,586		12,936	0	CATTLE			NO PERMIT
00704	EAST SINCLAIR	900	0	3,151		4,051	83	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
00705	RED DESERT ALLOTMENT	22,580	640	23,511		46,731	1,960	CATTLE	1-Mar	31-May	ROTATION
00706	G. L.	9,426	0	9,695		19,121	1,268	CATTLE	1-Mar	30-Nov	DEFERRED ROTATION
00707	HAYSTACK	36,339	1,920	41,284		79,543	4,209	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
00708	HAYSTACK RIVER PAST	840	640	0		1,480	113	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
00709	JAWBONE	11,560	0	11,568		23,128	1,326	CATTLE	16-May	31-Oct	ROTATION
00710	MONUMENT DRAW	15,417	0	0		15,417	1,834	CATTLE	15-Apr	31-Dec	ROTATION

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00711	MONUMENT LAKE	57,483	1,850	60,104		119,437	6,327	CATTLE	1-Mar	28-Feb	ROTATION
00712	THAYER	286	0	2,000		2,286	29	CATTLE	1-Jan	15-Jun	DORMANT SEASON
00713	NORTH CRESTON-WEST	10,871	0	0		10,871	1,178	CATTLE	15-Mar	15-Jun	DEFERRED ROTATION
00714	LATHAM	19,580	640	19,693		39,913	1,782	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
00715	NORTH TIPTON	12,256	640	13,221		26,117	1,334	CATTLE	1-Dec	30-Apr	DORMANT SEASON
00716	NORTH WAMSUTTER	28,238	677	30,255		59,170	2,935	CATTLE	20-Apr	2-Oct	DEFERRED ROTATION
00717	RUBY KNOLLS	15,355	0	14,811		30,166	3,022	CATTLE	1-Jun	30-Sep	PERMIT LONG
00718	SANDSTONE	38,074	1,881	45,298		85,253	5,046	CATTLE	1-Mar	31-Oct	DEFERRED ROTATION
00719	SEPARATION FLATS	45,455	660	42,795		88,910	4,654	CATTLE	1-Mar	28-Feb	ROTATION
00723	SHAMROCK PASTURE	61	483	1,942		2,486	1	CATTLE	1-Mar	28-Feb	ROTATION
00726	RYAN ROCKS	635	0	0		635	47	HORSE	1-Mar	22-Oct	PERMIT LONG
00727	T. Z. RANCH	40	0	102		142	7	CATTLE	1-May	31-Oct	PERMIT LONG
00730	BEAR CREEK	77	0	422		499	15	CATTLE	15-Jun	15-Aug	PERMIT LONG
00731	WEATLAND ROAD	80	0	560		640	17	CATTLE	15-Jun	15-Aug	PERMIT LONG
00732	MIDDLE SYBILLE CREEK	37	0	104		141	8	CATTLE	15-Jun	15-Aug	PERMIT LONG
00733	SOUTH FORK CANYON CREEK	1,816	640	3,195		5,651	350	CATTLE	15-May	31-Oct	PERMIT LONG
00800	DIFFICULTY	8,000	0	12,200		20,200	1,636	CATTLE	1-May	31-Oct	PERMIT LONG
00801	LARSON KNOLLS	5,117	0	5,118		10,235	616	CATTLE	16-May	31-Oct	ROTATION
00802	TENNANT PLACE	130	0	320		450	18	CATTLE	1-Jun	15-Oct	DEFERRED ROTATION

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00803	WEST ANSCHUTZ	8,248	2,040	14,559		24,847	1,428	CATTLE	1-May	31-Oct	DEFERRED ROTATION
00805	EAST SEMINOE	1,207	0	0	699	1,906	168	CATTLE	5-Jul	31-Oct	PERMIT LONG
00806	SCHNEIDER RIDGE	2,867	0	1,103		3,970	212	CATTLE	1-May	15-Oct	PERMIT LONG
00807	SOUTH LEO	16,295	1,049	24,195	2,497	44,036	2,279	CATTLE/ SHEEP	1-Mar	1-Oct	PERMIT LONG
00808	T. E. RANCH	1,608	246	4,919		6,773	536	CATTLE	11-May	1-Oct	PERMIT LONG
00809	MEDICINE BOW	794	620	7,671		9,085	181	CATTLE	20-Jun	15-Sep	PERMIT LONG
00811	ELLIS BLOCK	13,830	1,011	17,844		32,685	446	CATTLE	1-May	4-Dec	DEFERRED ROTATION
00812	FREEZEOUT	520	0	562		1,082	73	CATTLE	1-Jul	30-Nov	PERMIT LONG
00813	VANDIVER DITCH	1,297	0	1,085		2,382	265	CATTLE	1-May	31-Oct	DEFERRED ROTATION
00814	T. B. FLATS D.M.	1,000	0	2,507		3,507	162	CATTLE/ HORSE	16-Apr	30-May	PERMIT LONG
00816	FT STEELE BREAKS	9,419	80	9,447		18,946	790	CATTLE/ SHEEP	1-Mar	28-Feb	DEFERRED ROTATION
00817	LITTLE MEDICINE	1472	640	11,861		13,973	329	CATTLE	10-May	9-Nov	DEFERRED ROTATION
00819	NORTH WALCOTT	31,768	1,360	36,897	655	70,680	2,348	CATTLE/ SHEEP	1-Mar	28-Feb	YEARLONG PERMIT
00820	QUEALEY BLOCK	23,681	560	26,954	3,067	54,262	3,848	CATTLE/ SHEEP	1-Mar	28-Feb	YEARLONG PERMIT
00821	SOUTH SEMINOE	1,900	0	3,044	390	5,334	558	CATTLE/ SHEEP	1-Mar	28-Feb	YEARLONG PERMIT
00822	DANA BLOCK NORTH	26,713	1,280	35,523	3,067	66,583	4,962	CATTLE/ SHEEP	1-Mar	10-Nov	PERMIT LONG
00824	NORTH AREA	12,605	640	22,859		36,104	1,295	CATTLE	1-Mar	30-Nov	DEFERRED ROTATION

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00825	SLATE RIDGE	4,931	640	11,236		16,807	644	CATTLE	1-May	31-Oct	DEFERRED ROTATION
00826	ROBBERS ROOST	2,027	640	7,093		9,760	333	CATTLE	15-May	31-Oct	DEFERRED ROTATION
00827	PASS CREEK RIDGE	26,308	360	33,328		59,996	3,597	CATTLE	15-Apr	31-Oct	PERMIT LONG
00828	WILSON PASTURE	320	0	1,801		2,121	65	CATTLE	1-May	31-Oct	PERMIT LONG
00829	DANA MEADOWS SOUTH	13,864	1,920	21,683		37,467	2,336	CATTLE	1-May	10-Dec	DEFERRED ROTATION
00830	CHACE BLOCK	14,996	5,546	44,970		65,512	1,866	CATTLE	1-Apr	11-Jan	DEFERRED ROTATION
00831	COAD MOUNTAIN	7,012	0	19,295		26,307	621	CATTLE	25-May	27-Sep	DEFERRED ROTATION
00832	NORTH ANSCHUTZ	4,479	0	5,120		9,599	1,220	CATTLE	1-May	31-Oct	DEFERRED ROTATION
00833	T. B. NORTH AREA	530	0	1,177		1,707	76	CATTLE	1-May	31-Dec	ROTATION
00834	FOOTE CREEK PASTURE	6,466	1,280	13,115		20,861	1,292	CATTLE	1-May	31-Oct	DEFERRED ROTATION
00835	PETES GAP	2,560	0	3,200		5,760	348	CATTLE	1-Jul	30-Sep	DEFERRED ROTATION
00838	SOUTH WALCOTT	2,413	320	2,778		5,511	323	SHEEP	1-Mar	28-Feb	DEFERRED ROTATION
00839	LONE TREE ALLOTMENT	2,559	0	2,723		5,282	470	CATTLE	16-May	31-Oct	PERMIT LONG
00840	SOIL BANK PASTURE	160	0	640		800	27	CATTLE	1-May	31-Oct	PERMIT LONG
00841	SCHROEDER	120	0	5,262		5,382	7	CATTLE	15-May	1-Nov	PERMIT LONG
00842	WOLFE	1,250	0	360		1,610	168	CATTLE	21-May	31-Oct	PERMIT LONG
00843	MEADS	640	0	3,360		4,000	120	CATTLE	1-May	31-Oct	PERMIT LONG
00844	PASS CREEK FLATS	3,238	640	3,667		7,545	293	CATTLE	1-May	31-Oct	PERMIT LONG
00845	T. A. RANCH	858	517	4,157	2,085	7,617	338	CATTLE	15-May	25-Jun	ROTATION

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
00846	COYOTE DITCH	80	640	2,240		2,960	12	CATTLE	1-May	31-Oct	PERMIT LONG
00847	HOME PASTURE	80	0	0		80	13	CATTLE	1-May	31-Oct	PERMIT LONG
00848	RATTLESNAKE	950	0	718		1,668	202	CATTLE	1-May	31-Oct	PERMIT LONG
00849	MIDLAND	661	0	0		661	165	CATTLE	1-Jun	31-Aug	PERMIT LONG
00850	HOME RANCH	7,152	3,360	17,802		28,314	585	BISON/ CATTLE	20-May	30-Sep	DEFERRED ROTATION
00851	WEST ELK MOUNTAIN	790	0	0		790	127	CATTLE	15-May	30-Sep	ROTATION
00852	UPPER ROBBERS ROOST	2,880	0	9,906		12,786	447	CATTLE	15-May	31-Oct	PERMIT LONG
00853	U. L. ALLOTMENT	640	640	2,560		3,840	120	CATTLE	15-May	31-Oct	DEFERRED ROTATION
00854	SOUTH ANSCHUTZ BLOCK	2,280	2,080	12,071		16,431	345	CATTLE	1-May	31-Oct	DEFERRED ROTATION
00855	ARLINGTON ALLOTMENT	841	0	1,199		2,040	142	CATTLE	1-Jul	29-Aug	DEFERRED ROTATION
00856	PINE RIDGE	880	640	3,989		5,509	207	CATTLE	1-Jun	30-Sep	PERMIT LONG
00857	DIAMOND DOME	2,331	1,743	9,076		13,150	518	CATTLE	16-May	30-Sep	PERMIT LONG
00858	THREE MILE TRACT	40	0	0		40	8	CATTLE	1-Apr	28-Feb	PERMIT LONG
00859	COALBANK MINE	1,120	640	2,698		4,458	294	CATTLE	1-May	30-Jun	DEFERRED ROTATION
00860	UPPER BEAR CREEK	652	1,280	2,724		4,656	66	CATTLE	1-May	31-Oct	PERMIT LONG
00861	CORPENING	2,503	320	3,861		6,684	327	CATTLE	18-Apr	31-May	ROTATION
00862	LAKE CREEK FLATS	3,770	0	3,609		7,379	329	CATTLE/ SHEEP	1-Mar	28-Feb	DEFERRED ROTATION
00863	NORTH LAKE CREEK	160	0	0		160	45	CATTLE	1-Jun	28-Aug	PERMIT LONG
00864	SIXMILE HILL	147	120	620		887	10	CATTLE	1-Mar	30-Dec	DEFERRED ROTATION
00865	LAKE CREEK	1,280	0	348		1,628	0	CATTLE			NO PERMIT

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00866	BUCK SPRINGS DRAW	1,440	320	640		2,400	188	CATTLE	15-May	15-Nov	DEFERRED ROTATION
00867	DUMP	1,280	0	850		2,130	192	CATTLE	25-May	30-Sep	PERMIT LONG
00868	V U	2,647	0	0		2,647	391	CATTLE	1-May	15-Oct	DEFERRED ROTATION
00869	CEDAR CR	120	0	0		120	10	CATTLE	1-Apr	30-Nov	PERMIT LONG
00870	EAST COAD MTN ALLOT	190	0	644		834	40	CATTLE	1-May	31-Aug	PERMIT LONG
00871	BASIN RANCH	760	2,320	13,720		16,800	127	CATTLE	20-Jun	15-Sep	DEFERRED ROTATION
00872	OVERLAND TRAIL	120	640	1,406		2,166	24	CATTLE	1-Jul	16-Sep	DEFERRED ROTATION
00873	DIXON BLOCK	637	0	647		1,284	144	CATTLE	1-Jul	30-Sep	PERMIT LONG
00875	COOPER HILL	840	0	0		840	121	CATTLE	20-Jun	15-Sep	PERMIT LONG
00876	SEVEN MILE	400	0	0		400	60	CATTLE/ HORSE	1-Jun	31-Aug	PERMIT LONG
00877	WILLS	298	0	617		915	54	CATTLE	1-May	20-Sep	PERMIT LONG
00878	COUNTY LINE	320	160	160		640	74	CATTLE	15-May	12-Sep	PERMIT LONG
00879	LONESOME FOX	100	0	720		820	18	CATTLE	1-Jul	31-Dec	PERMIT LONG
01009	CHEROKEE CREEK	953	0	793		1,746	122	CATTLE	1-Jul	6-Sep	PERMIT LONG
01021	BEAVER HILLS	960	0	3,872		4,832	183	CATTLE	1-Jun	15-Jul	DEFERRED ROTATION
01022	ROMIOS RANCH	2,120	0	440		2,560	265	CATTLE	15-Jun	31-Aug	PERMIT LONG
01030	HEATHER CREEK	2,047	44	62		2,153	162	CATTLE	15-Jun	15-Oct	DEFERRED ROTATION
01045	CHAD	1,672	640	1,850		4,162	295	CATTLE	1-May	31-Oct	DEFERRED ROTATION
01063	COYOTE HILL	137	0	1,109		1,246	41	CATTLE	1-Jun	15-Jul	PERMIT LONG
01101	AIRHEART PASTURE	520	640	701		1,861	96	CATTLE	16-Mar	15-Jul	ROTATION

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01102	BIG GULCH	120	0	320		440	30	CATTLE/ SHEEP	3-Jun	1-Oct	DEFERRED ROTATION
01103	WEST BROWNS HILL	635	640	1,708		2,983	162	CATTLE	22-Jun	28-Aug	DEFERRED ROTATION
01104	CEDAR RIDGE	821	0	80		901	164	CATTLE	16-Apr	31-Oct	PERMIT LONG
01106	CUSHING	280	0	286		566	20	CATTLE	16-Jun	15-Sep	PERMIT LONG
01107	DOLAN	240	320	20		580	60	CATTLE	1-May	30-Nov	ROTATION
01108	ETHERINGTON	80	0	0		80	32	CATTLE	10-Jun	30-Oct	PERMIT LONG
01109	FLY CREEK	529	0	0		529	100	CATTLE	1-May	30-Jun	DEFERRED ROTATION
01110	HELL CANYON	1,051	0	1,128		2,179	148	CATTLE	1-Jun	30-Sep	DEFERRED ROTATION
01111	HILL PASTURE	325	0	1,448		1,773	31	CATTLE	1-May	31-Oct	ROTATION
01112	LITTLE HORSE MTN	630	0	40		670	220	CATTLE	1-May	24-Jun	ROTATION
01113	LITTLE SANDSTONE	1,340	460	380		2,180	148	CATTLE/ SHEEP	1-Jun	12-Oct	ROTATION
01115	MCCARY	395	0	0		395	102	CATTLE	15-Jun	31-Oct	PERMIT LONG
01117	MEXICAN MEADOWS	320	2,880	80		3,280	69	CATTLE	1-May	15-Oct	DEFERRED ROTATION
01118	MORGAN-BOYER SUBUNIT	8,260	643	2,260		11,163	1,702	CATTLE/ SHEEP	15-May	30-Oct	ROTATION
01119	NORTH RASMUSSEN	882	0	0		882	248	CATTLE	1-Jun	30-Oct	DEFERRED ROTATION
01121	PIONEER DRAW	190	0	0		190	55	SHEEP	1-May	20-Jul	PERMIT LONG
01122	POLING ISO TRACT	135	0	605		740	20	CATTLE	10-May	31-Aug	PERMIT LONG
01123	RASMUSSEN SUBUNIT	4,751	2,503	12,157		19,411	792	CATTLE	15-Jun	30-Nov	DEFERRED ROTATION
01124	READER	205	0	0		205	30	CATTLE	1-May	31-May	PERMIT LONG

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01125	READER BASIN PASTURE	2,276	2,078	5,221		9,575	466	CATTLE	1-May	15-Oct	ROTATION
01126	ROAD GULCH	975	0	0		975	213	CATTLE/ SHEEP	1-Mar	28-Feb	PERMIT LONG
01127	SHEEP MOUNTAIN	303	0	0		303	53	CATTLE	16-May	15-Sep	PERMIT LONG
01128	SHORT	995	0	70		1,065	167	CATTLE	1-May	30-Jun	ROTATION
01129	SOUTH BAGGS	280	0	0		280	30	CATTLE/ SHEEP	1-May	31-Oct	PERMIT LONG
01130	SOUTH PASTURE	497	0	3,383		3,880	89	CATTLE	1-Apr	30-Sep	ROTATION
01132	SPRING GULCH	471	0	0		471	110	CATTLE	1-May	29-Sep	DEFERRED ROTATION
01133	STANDARD	330	0	0		330	92	CATTLE	15-Jun	30-Sep	PERMIT LONG
01134	STATE LINE 40	40	0	0		40	4	CATTLE	1-May	31-May	PERMIT LONG
01135	CEDARS	160	0	0		160	12	CATTLE	1-May	31-Oct	ROTATION
01136	BATTLE MTN ISO TRACT	92	0	0		92	13	CATTLE	1-May	18-Jun	ROTATION
01138	M. J. ANDERSON ISO #1	40	0	529		569	9	CATTLE	1-Jun	15-Oct	DEFERRED ROTATION
01139	COBB CAT CO ISO TR	160	0	0		160	34	CATTLE	16-May	18-Sep	DEFERRED ROTATION
01140	GRIEVE RESERVOIR PAS	124	0	0		124	31	CATTLE	10-Oct	15-Nov	ROTATION
01141	M. J. ANDERSON ISO #2	35	0	160		195	8	CATTLE	1-Jun	30-Sep	DEFERRED ROTATION
01142	EAST BROWNS HILL	493	608	1,516		2,617	106	CATTLE	1-Jun	31-Oct	DEFERRED ROTATION
01143	L. U. GRIEVE PASTURE	200	0	0		200	49	CATTLE	1-Mar	30-Apr	ROTATION
01144	COALBANK DRAW	240	0	661		901	64	CATTLE	1-May	2-Jul	ROTATION
01145	WALTERS HOMESTEAD	160	0	560		720	36	CATTLE	1-May	30-Jun	ROTATION

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01200	TIMNATH FARMS	40	0	1,677		1,717	10	CATTLE	15-May	30-Dec	PERMIT LONG
01201	GASPAR	160	0	3,360		3,520	58	CATTLE	1-Jun	25-Oct	PERMIT LONG
01202	SPRING CREEK	200	0	680		880	220	CATTLE/ HORSE	21-Jun	20-Sep	PERMIT LONG
01203	FARTHING RANCH	650	0	0		650	75	CATTLE	1-Jun	31-Oct	PERMIT LONG
01204	FERGUSON RANCH "A"	360	0	0		360	52	CATTLE	15-May	20-Oct	PERMIT LONG
01205	ARMADILLO	160	0	200		360	18	CATTLE	15-May	29-Sep	PERMIT LONG
01207	A. E. HODGSON	40	0	600		640	11	CATTLE	10-Jun	30-Sep	PERMIT LONG
01208	SAND CREEK	40	320	1,917		2,277	8	CATTLE	1-Jul	1-Nov	PERMIT LONG
01209	LAZY D	61	0	0		61	15	CATTLE	10-May	30-Oct	PERMIT LONG
01210	N. CROW CREEK	2,676	640	14,300		17,616	573	CATTLE	22-Jun	30-Sep	PERMIT LONG
01211	MCINTYRE DRAW	320	0	0		320	64	CATTLE	10-Jun	30-Sep	PERMIT LONG
01212	J. D. MCLEES	1,160	0	0		1,160	135	CATTLE	10-May	31-Oct	PERMIT LONG
01213	BRUSH CREEK	404	0	80		484	80	CATTLE	1-Jun	30-Sep	PERMIT LONG
01214	HOCKERSMITH	320	0	1,920		2,240	80	CATTLE	10-May	30-Sep	PERMIT LONG
01215	SOAPSTONE GR. ASSN.	40	0	0		40	10	CATTLE	15-Apr	31-Oct	PERMIT LONG
01216	SWITZER	40	0	0		40	8	CATTLE	10-May	30-Sep	PERMIT LONG
01218	LODGEPOLE CR.	480	0	0		480	120	CATTLE	1-Jul	30-Nov	PERMIT LONG
01219	ANDRES WILLADSEN	40	0	0		40	8	CATTLE	1-Jun	30-Sep	PERMIT LONG
01220	S OF HAPPY JACK	77	0	640		717	0	CATTLE			NO PERMIT
01221	THREEMILE	724	320	1720		2,764	9	CATTLE	1-Jun	30-Nov	PERMIT LONG
01222	LONG	320	0	200		520	32	CATTLE	1-Jun	15-Sep	PERMIT LONG
09001	ANCHOR RANCH	160	0	0		160	72	HORSE	1-May	30-Sep	PERMIT LONG
09002	ANDERSON	240	560	560		1,360	60	CATTLE	1-Jun	30-Sep	PERMIT LONG
09003	HAY DRAW	280	100	1,781		2,161	32	CATTLE	10-May	30-Sep	PERMIT LONG
09004	ROGERS CREEK	960	180	2,936		4,076	112	CATTLE	10-May	30-Sep	PERMIT LONG

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09005	BAILEY ATKINSON	2,190	0	0		2,190	375	CATTLE	1-Aug	6-Feb	PERMIT LONG
09006	KEN ATKINSON	2,081	721	2,521		5,323	359	CATTLE	1-May	30-Nov	PERMIT LONG
09007	DALE CREEK	40	0	5,075		5,115	12	CATTLE	1-May	15-Jul	PERMIT LONG
09008	DUTTON CREEK SOUTH	320	0	2,240		2,560	74	CATTLE	1-May	30-Sep	PERMIT LONG
09009	WLX	3,536	0	0		3,536	501	CATTLE	15-May	30-Sep	PERMIT LONG
09010	SQUAW RANCH	40	0	1,590		1,630	10	CATTLE	15-Jul	1-Nov	PERMIT LONG
09011	BESSIE BATH	785	0	0		785	168	CATTLE	10-May	31-Oct	PERMIT LONG
09012	BATH BROTHERS	1,240	0	5,430		6,670	310	CATTLE	1-May	10-Oct	PERMIT LONG
09013	IRON MOUNTAIN	4,272	0	0		4,272	762	CATTLE	1-Jul	30-Sep	PERMIT LONG
09014	BELL-OTTE RANCH	1,715	1,640	5,280		8,635	115	CATTLE	1-Jun	30-Sep	PERMIT LONG
09015	SQUAW CREEK	40	0	200		240	4	CATTLE	15-Apr	10-Nov	ROTATION
09016	DUNN ALLOTMENT	80	0	2,144		2,224	13	CATTLE	15-Apr	10-Nov	ROTATION
09017	THE BUTTES	320	0	420		740	48	CATTLE	25-May	30-Aug	PERMIT LONG
09018	N. LODGEPOLE CR.	160	0	1,440		1,600	37	CATTLE	1-Jun	31-Oct	PERMIT LONG
09019	ANTELOPE CREEK	1,042	0	5,085		6,127	260	CATTLE	1-Jun	31-Aug	PERMIT LONG
09020	BOVEE HORSE PASTURE	80	0	0		80	8	HORSE	1-Mar	28-Feb	YEARLONG PERMIT
09021	BOVEE	2,710	0	0		2,710	379	CATTLE	20-May	21-Sep	PERMIT LONG
09022	GIBBS PLACE	1,664	160	1,440		3,264	282	CATTLE	1-Jun	30-Sep	PERMIT LONG
09023	WHEATLAND TUNNEL	2,091	10	2,304		4,405	352	CATTLE	1-Jun	30-Nov	PERMIT LONG
09024	WHEATLAND RES #2	800	0	0		800	132	CATTLE	1-Jun	30-Sep	ROTATION
09025	JAMES LAKE	4,538	0	0		4,538	676	CATTLE	1-Jun	15-Sep	PERMIT LONG
09026	WAECHTER CANYON	917		3,448		4,365	206	CATTLE	10-May	30-Sep	PERMIT LONG
09027	WOODROW BROW	1,680	1,116	240		3,036	165	CATTLE	1-May	28-Nov	PERMIT LONG
09028	BEAR HEAD MOUNTAIN	80	640	640		1,360	8	CATTLE	1-May	31-Dec	PERMIT LONG
09029	INDIAN ROCK	680	0	0		680	110	CATTLE	10-May	15-Oct	PERMIT LONG

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09030	BURNETT CREEK	3,071	720	6,016		9,807	371	CATTLE/ SHEEP	15-Apr	1-Oct	PERMIT LONG
09031	PINTO ROCKS	849	640	12,267		13,756	81	CATTLE	1-Apr	15-Nov	ROTATION
09032	J.H. BUTLER	41	0	0		41	7	CATTLE	1-May	1-Nov	ROTATION
09033	CARLIN RANCH	1,948	0	39,360		41,308	300	CATTLE	1-May	31-Oct	ROTATION
09034	PALMER CANYON	280	0	1,600		1,880	71	CATTLE	1-May	31-Dec	PERMIT LONG
09035	CHALK HILLS DRY CR.	18,682	1,922	14,461		35,065	2,724	CATTLE/ SHEEP	15-May	14-Nov	DEFERRED ROTATION
09036	PINE RIDGE	240	640	6,580		7,460	55	CATTLE	1-May	31-Oct	PERMIT LONG
09037	BULL CAMP PEAK	4,274	1,280	20,352		25,906	604	CATTLE	15-May	15-Sep	ROTATION
09038	ERVIN CORL	40	0	960		1,000	7	CATTLE	1-Jun	1-Oct	PERMIT LONG
09039	CROONBERG RANCH	1,440	0	3,222		4,662	215	CATTLE	1-Jun	30-Sep	PERMIT LONG
09040	PARSONS CREEK	1,680	0	2,280		3,960	93	CATTLE	1-Jun	31-Oct	PERMIT LONG
09041	DAVIDSON CREEK	6,005	720	5,267		11,992	882	CATTLE	1-Jun	30-Oct	PERMIT LONG
09042	CROSS ISOLATED TRACT	120	0	0		120	18	CATTLE	1-Jun	15-Oct	PERMIT LONG
09043	OWEN CREEK	395	600	1,320		2,315	66	CATTLE	1-May	31-Dec	PERMIT LONG
09044	WHEATLAND # 3	4,745	1,280	16,877		22,902	1,218	CATTLE	10-May	10-Oct	ROTATION
09045	NORTH FORK	320	0	0		320	54	CATTLE	10-Jun	20-Sep	DEFERRED ROTATION
09046	DALE CREEK	240	0	6,358		6,598	0	CATTLE			NO PERMIT
09047	JUNCTION	840	840	1,368		3,048	182	CATTLE	1-Jun	30-Nov	ROTATION
09048	CARROLL	520	0	0		520	134	CATTLE	10-May	30-Sep	PERMIT LONG
09049	DOUBLE K RANCH	798	0	0		798	181	CATTLE	1-Apr	30-Nov	ROTATION
09050	DUMBELL RANCH CO.	80	1,190	6,865		8,135	8	CATTLE	10-Apr	30-Sep	PERMIT LONG
09051	MULE-ROGERS CR.	7,292	1,920	4,203		13,415	1,683	CATTLE	15-May	15-Nov	PERMIT LONG
09052	SPRING CREEK	1,462	0	2,713		4,175	298	CATTLE	1-May	30-Sep	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
09053	STRAIN	155	0	160		315	13	CATTLE	1-May	31-Oct	PERMIT LONG
09054	WOODS LANDING	238	0	1,902		2,140	46	CATTLE	1-Aug	31-Oct	PERMIT LONG
09055	FERGUSON RANCH "C"	258	0	0		258	31	CATTLE	15-May	31-Oct	PERMIT LONG
09056	PR5 RANCH	1,001	760	5,560		7,321	148	CATTLE	10-Nov	31-May	ROTATION
09057	SOUTH FORK	1,033	640	6,044		7,717	167	CATTLE	15-Jun	15-Oct	PERMIT LONG
09058	40 MILE CREEK	80	360	600		1,040	16	CATTLE	1-Jun	31-Oct	PERMIT LONG
09059	CHARLES GARRETT	640	0	0		640	67	CATTLE	1-Jun	15-Jul	ROTATION
09060	SYBILLE CR.	1,124	965	2,760		4,849	169	CATTLE	15-May	15-Sep	PERMIT LONG
09061	WARREN GEORGE	4,781	718	5,471		10,970	554	CATTLE	1-Jun	22-Nov	PERMIT LONG
09062	WILLIAM GOODRICH	1,522	0	0		1,522	174	CATTLE	1-May	14-Oct	PERMIT LONG
09063	JMS RANCH	160	0	0		160	40	CATTLE	10-May	30-Sep	PERMIT LONG
09064	MENTER-RATTLESNAKE	719	0	838		1,557	58	CATTLE	1-Apr	31-Dec	PERMIT LONG
09065	THE BOWL	240	0	1,130		1,370	42	CATTLE	1-May	20-Oct	ROTATION
09066	WEST FORK	1,680	1,280	3,357		6,317	294	CATTLE	1-May	20-Sep	PERMIT LONG
09067	ANTELOPE BASIN	1,655	1,391	6,353		9,399	324	CATTLE	25-Jun	18-Oct	DEFERRED ROTATION
09068	ROCK CREEK	1,888	640	10,293		12,821	286	CATTLE	1-Apr	19-Nov	DEFERRED ROTATION
09069	COOPER LAKE	3,990	1,205	15,919		21,114	880	CATTLE	1-May	20-Sep	PERMIT LONG
09070	CANYON CREEK	80	1,040	4,700		5,820	8	CATTLE	1-Mar	31-Oct	DORMANT SEASON
09071	SLATE CREEK	477	0	0		477	46	CATTLE	1-May	31-Oct	PERMIT LONG
09072	HARRIS RANCH	2,603	0	0		2,603	465	CATTLE	10-May	30-Sep	PERMIT LONG
09073	WEBB LAKE	520	0	3,176		3,696	85	CATTLE	1-May	31-Oct	PERMIT LONG
09074	ELK HORN	5,093	639	6,490		12,222	1,110	CATTLE	15-May	15-Sep	PERMIT LONG
09075	SCHICK	160	0	480		640	43	CATTLE	10-May	30-Sep	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
09076	DOWNEY LAKES SOUTH	160	0	1,490		1,650	42	CATTLE	15-May	15-Sep	PERMIT LONG
09078	TIMBER CANYON	1,162	160	6,022		7,344	113	CATTLE	1-Mar	30-Nov	PERMIT LONG
09079	COLE	120	0	1,272		1,392	30	CATTLE/SHEEP	1-May	1-Nov	DEFERRED ROTATION
09080	MILLER	40	0	17		57	6	HORSE	1-Sep	15-Oct	DORMANT SEASON
09081	COALBANK	40	840	1,280		2,160	10	CATTLE	1-Jun	31-Aug	PERMIT LONG
09082	GOVERNMENT CREEK	160	0	3,871		4,031	25	CATTLE	1-May	Sep-31	PERMIT LONG
09083	BAMFORD	393	1,600	2,240		4,233	85	CATTLE	1-Jun	30-Nov	PERMIT LONG
09084	HAMILTON SPRINGS	2,283	0	2,084		4,367	570	CATTLE	1-Jun	31-Oct	PERMIT LONG
09085	NORTH SYBILLE CREEK	80	0	1,418		1,498	3	CATTLE	10-Apr	30-Sep	PERMIT LONG
09086	BAR M MOUNTAIN	635	0	1,556		2,191	45	CATTLE	1-Jun	30-Nov	PERMIT LONG
09087	KENNEDY	648	0	4,256		4,904	60	CATTLE	1-May	30-Sep	PERMIT LONG
09089	RIVER BASIN	3,077	917	3,317		7,311	205	CATTLE	1-Mar	28-Feb	ROTATION
09090	DODGE CREEK RANCH	318	640	2,237		3,195	88	CATTLE	15-May	15-Nov	PERMIT LONG
09091	LEAZENBY LAKE	40	0	340		380	10	CATTLE	1-Jun	1-Dec	PERMIT LONG
09092	STEAMBOAT ROCK	4,792	0	16,803		21,595	654	CATTLE	15-Jun	10-Sep	PERMIT LONG
09093	W. J. LOGAN	40	0	0		40	0	CATTLE			NO PERMIT
09094	IRVINE JE AND GA	2,002	0	0		2,002	438	CATTLE	1-May	31-Oct	PERMIT LONG
09095	JAMES ATKINSON	120	0	1,600		1,720	15	CATTLE	20-May	1-Jul	PERMIT LONG
09096	BOSWELL RANCH	2,243	680	1,741		4,664	299	CATTLE	15-May	15-Oct	PERMIT LONG
09098	ROCK CREEK LAKES	320	1,600	5,467		7,387	34	CATTLE	1-May	31-Oct	PERMIT LONG
09099	MCGILL	797	0	1,360		2,157	77	CATTLE	10-May	30-Sep	ROTATION
09100	PARADISE CREEK	80	0	640		720	6	CATTLE	1-May	30-Oct	PERMIT LONG
09101	IONE	200	640	1,720		2,560	30	CATTLE	1-May	31-Oct	PERMIT LONG
09102	SHEEP ROCK	99	560	2,111		2,770	4	CATTLE	10-Aug	31-Nov	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
09103	PINTO CREEK	2,840	640	6,760		10,240	370	CATTLE	16-May	31-Oct	PERMIT LONG
09104	NORTH SPRAGUE	640	5,128	10,720		16,488	123	CATTLE	1-May	20-Sep	PERMIT LONG
09105	RING MOUNTAIN	9,650	2,378	3,209		15,237	1,181	CATTLE	1-Jun	30-Nov	PERMIT LONG
09106	MILL CREEK	253	240	2,536		3,029	58	CATTLE	1-May	31-Oct	PERMIT LONG
09107	POE MTN-CANYON CREEK	1,360	640	4,041		6,041	161	CATTLE	1-Jun	31-Oct	PERMIT LONG
09108	MCKECKNIE MEADOWS	56	0	1,732		1,788	14	CATTLE	1-Jun	31-Oct	PERMIT LONG
09109	STROUSE HILL	11,606	5,113	38,443		55,162	1,480	CATTLE	1-Mar	20-Sep	DEFERRED ROTATION
09110	PLUMBAGO CANYON	160	0	480		640	73	CATTLE	15-Jun	15-Aug	PERMIT LONG
09113	SHEEP CREEK	427	407	6,479		7,313	103	CATTLE	16-Jun	15-Oct	PERMIT LONG
09114	MORGAN & EDWARDS	160	0	0		160	15	CATTLE	10-May	30-Oct	PERMIT LONG
09115	NEEDMORE RANCH	1,570	0	0		1,570	136	CATTLE	1-Jun	30-Oct	PERMIT LONG
09117	DOWNNEY LAKES	380	0	0		380	0	CATTLE			NO PERMIT
09118	EAST JELM MOUNTAIN	1,534	0	2,804		4,338	259	CATTLE	15-May	31-Oct	PERMIT LONG
09119	HOLLAND LEASE	440	0	280		720	83	CATTLE	15-May	15-Oct	PERMIT LONG
09120	SUNRISE CREEK	1,020	0	684	1,020	2,724	182	CATTLE	1-Jun	20-Oct	PERMIT LONG
09121	PALMER	160	0	360		520	25	CATTLE	1-Jan	28-Feb	DORMANT SEASON
09122	HECHT	37	117	800		954	4	CATTLE	1-Jun	30-Sep	PERMIT LONG
09123	HALLECK CANYON	1,885	1,280	7,677		10,842	236	CATTLE	1-May	31-Dec	REST ROTATION
09124	BOSLER CANAL #3	120	640	5,194		5,954	36	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
09126	BONE CREEK	4,480	1,280	8,960		14,720	844	CATTLE	1-Jun	30-Nov	PERMIT LONG
09127	C. U. RANCH, INC.	880	241	1,043		2,164	114	CATTLE	17-Jun	31-Dec	ROTATION
09128	R. O.	195	640	3,525		4,360	35	CATTLE	15-May	15-Oct	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
09129	RED MOUNTAIN	78	0	0		78	20	CATTLE	1-May	31-Oct	DEFERRED ROTATION
09130	BUFORD	110	0	0		110	38	GOAT	1-Mar	28-Feb	YEARLONG PERMIT
09131	DALE ROBBINS	959	0	2,638		3,597	194	CATTLE	15-Jun	30-Sep	PERMIT LONG
09132	ROBBINS	2,956	0	10,097		13,053	414	CATTLE	1-Jun	31-Aug	PERMIT LONG
09133	GREEN CREEK	564	0	0		564	57	CATTLE	1-Aug	30-Nov	PERMIT LONG
09134	HOLIDAY PLACE	241	0	640		881	35	CATTLE	1-Jun	31-Jul	PERMIT LONG
09135	BADGER CREEK	353	0	0		353	26	CATTLE	1-Jul	30-Sep	PERMIT LONG
09136	TWENTYMILE DRAW	4,977	1,680	13,305		19,962	940	CATTLE	1-Mar	31-Sep	PERMIT LONG
09137	CROSS C RANCH	1,920	0	0		1,920	146	CATTLE	1-May	31-Oct	PERMIT LONG
09138	LOOKOUT RANCH	3,534	1,417	5,030		9,981	769	CATTLE	1-May	31-Sep	PERMIT LONG
09139	SAND CREEK RANCH	320	0	0		320	98	CATTLE	1-Jun	31-Oct	PERMIT LONG
09140	SANDERS	77	0	0		77	13	CATTLE			NO PERMIT
09141	MULE CREEK	1,433	2,000	6,450		9,883	146	CATTLE	1-May	30-Nov	PERMIT LONG
09142	JW/ SHEEP MTN RANCH	3,947	640	16,645		21,232	789	CATTLE	1-May	15-Oct	PERMIT LONG
09143	BREES	640	640	5,375		6,655	180	CATTLE	1-Jul	30-Oct	PERMIT LONG
09144	MONAGHAN RANCH	600	1,080	7,120		8,800	143	CATTLE	1-Jun	31-Oct	PERMIT LONG
09145	BOOT HEEL	1,520	640	2,000		4,160	284	SHEEP	1-Mar	1-Jun	PERMIT LONG
09147	SOMMERS	1,824	0	4,803		6,627	279	CATTLE	1-May	30-Sep	PERMIT LONG
09148	SPRINGFIELD RANCH IN	1,040	11	3,063		4,114	250	CATTLE	15-May	31-Oct	PERMIT LONG
09149	STERRETT	120	0	0		120	16	CATTLE/ SHEEP	1-Jun	31-Oct	PERMIT LONG
09150	INDIAN CHIPS	2,240	640	18,620		21,500	279	CATTLE	15-May	15-Oct	PERMIT LONG
09151	N LARAMIE-N CR.	2,242	800	6,853		9,895	259	CATTLE	10-May	30-Sep	PERMIT LONG
09152	COYOTE CANYON	280	0	1,040		1,320	33	CATTLE	10-May	30-Sep	PERMIT LONG

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09153	SELLERS MTN.	2,840	360	3,807		7,007	410	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
09154	MEISER CREEK	1,626	0	1050		2,676	220	CATTLE	1-Jun	30-Nov	PERMIT LONG
09155	MCFARLANE CREEK	1,308	1,760	3,253		6,321	129	CATTLE	1-Jul	1-Aug	PERMIT LONG
09156	DUCK CREEK	592	0	0		592	45	CATTLE	1-Jul	1-Aug	DEFERRED ROTATION
09157	T-K RANCH	640	0	0		640	150	CATTLE	15-May	15-Oct	PERMIT LONG
09158	TALBOTT	120	0	0		120	18	CATTLE	15-May	15-Oct	PERMIT LONG
09159	TATMAN ORIGINAL	2,796	3,520	13,754		20,070	883	CATTLE	10-May	9-Nov	DEFERRED ROTATION
09161	DIRT FARM	320	0	101		421	42	CATTLE/ SHEEP	1-Jun	28-Aug	PERMIT LONG
09164	THREE D'S & T	1,556	0	0		1,556	232	CATTLE	1-Jun	30-Sep	PERMIT LONG
09165	LITTLE LARAMIE RIVER	80	0	2,184		2,264	8	CATTLE	1-Jul	30-Sep	PERMIT LONG
09166	I-80 OVERPASS	178	0	480		658	56	CATTLE	1-Jun	30-Nov	PERMIT LONG
09167	CANYON CREEK	160	800	3,360		4,320	26	CATTLE	1-May	31-Dec	PERMIT LONG
09168	MUD SPRINGS	8,471	5,788	39,444		53,703	1,722	CATTLE	1-May	31-Dec	PERMIT LONG
09170	WARREN LUSTK "A"	2,719	1,760	27,757		32,236	280	CATTLE/ SHEEP	1-Jun	15-Oct	PERMIT LONG
09171	WARREN LVSTK "B"	320	160	3,908		4,388	32	CATTLE/ SHEEP	1-Jun	15-Oct	PERMIT LONG
09173	DUTTON CREEK SOUTH	675	1,280	8,470		10,425	146	CATTLE	15-May	31-Oct	PERMIT LONG
09174	MARIUS WILLADSEN	40	0	0		40	8	CATTLE	1-Jun	15-Oct	PERMIT LONG
09175	BERTHEL LAND & LIVE:	1,096	0	0		1,096	334	CATTLE	1-May	31-Oct	PERMIT LONG
09176	MERRIL DRAW	1,401	0	3,476		4,877	184	CATTLE	1-May	31-Oct	PERMIT LONG
09178	KIRK RANCH NATRONA	1,400	400	1,120		2,920	151	CATTLE	1-Mar	15-Nov	PERMIT LONG
09179	YANKEE DRAW	1,777	0	645		2,422	311	CATTLE	10-May	30-Sep	PERMIT LONG
09181	RIVER PASTURE	640	960	472		2,072	124	CATTLE	15-May	15-Oct	PERMIT LONG

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09182	CHIMNEY ROCK	1,220	2,240	16,184		19,644	264	CATTLE	15-May	15-Oct	PERMIT LONG
09183	LARAMIE PEAK BGWR	40	0	0		40	0	CATTLE			NO PERMIT
09184	J. KENNEDY'S	1,120	800	2,080		4,000	129	CATTLE	1-May	1-Dec	PERMIT LONG
09185	N. LARAMIE RIVER	83	0	0		83	15	CATTLE	1-May	30-Sep	DEFERRED ROTATION
09186	FLAT TOP ALLOT	600	0	3,054		3,654	132	CATTLE	1-May	30-Oct	PERMIT LONG
09187	CHINA WALL	1,040	0	3,146		4,186	102	CATTLE	15-May	31-Oct	DEFERRED ROTATION
09188	S. MEISER CREEK	1,266	0	4,098		5,364	112	CATTLE	1-May	30-Nov	PERMIT LONG
09189	GEORGE CREEK	40	80	1,150		1,270	5	CATTLE	1-May	30-Nov	PERMIT LONG
09192	SECTION 22	640	0	0		640	64	CATTLE	15-Apr	15-Oct	DEFERRED ROTATION
09194	BLUEGRASS	1,551	640	10,466		12,657	259	CATTLE	5-May	5-Oct	PERMIT LONG
09195	SUGAR LOAF	560	0	0		560	47	CATTLE	1-Mar	31-Jul	PERMIT LONG
09196	HOLMAN	80	0	0		80	27	CATTLE	1-Apr	31-Jul	PERMIT LONG
09197	DESERT	320	0	0		320	45	CATTLE	1-Jun	31-Oct	PERMIT LONG
09199	EAST SHELDON	160	0	0		160	42	CATTLE	16-Nov	31-Oct	DORMANT SEASON
09201	IRON MOUNTAIN CR.	1,680	357	1,040		3,077	338	CATTLE	16-May	15-Oct	PERMIT LONG
09202	LOOKOUT PEAK	2,831	0	0		2,831	588	CATTLE	1-Mar	15-Oct	DEFERRED ROTATION
09203	UPPER PINE RIDGE	3,366	0	0		3,366	977	CATTLE	1-May	30-Sep	PERMIT LONG
09205	GOAT MOUNTAIN	680	0	1,262		1,942	48	CATTLE	1-Jun	30-Nov	PERMIT LONG
09206	INDIAN HEAD ROCK	464	40	304		808	37	CATTLE	15-Jun	31-Dec	PERMIT LONG
09207	MOUNTAIN INCOMMON	1,407	10	680		2,097	101	CATTLE	1-Jun	30-Sep	PERMIT LONG
09208	PLUMBAGO	410	120	1,353		1,883	36	CATTLE	1-Mar	31-Oct	ROTATION
09209	SQUAW MOUNTAIN	121	0	560		681	10	CATTLE	1-Mar	3-Jul	ROTATION

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09210	TWENTYTWO MILE	3,151	0	4,039		7,190	695	CATTLE	15-May	15-Oct	PERMIT LONG
09212	COW CREEK	102	0	692		794	10	CATTLE	1-May	30-Sep	ROTATION
09213	PASCO	1,126	0	0		1,126	204	CATTLE	10-May	10-Oct	PERMIT LONG
09214	IONE LAKE	15,127	4,907	56,270		76,304	3,303	CATTLE	1-May	30-Sep	PERMIT LONG
09215	LARAMIE RIVER	480	0	0		480	89	CATTLE	1-May	1-Nov	PERMIT LONG
09216	TRAPPER SPRINGS	641	0	5,726		6,367	128	CATTLE	1-May	1-Nov	PERMIT LONG
09217	MCGILL LAKES	2,372	0	3,049		5,421	644	CATTLE	15-May	15-Oct	PERMIT LONG
09218	MOONSHINE PEAK	870	10	1,515		2,395	146	CATTLE	1-Jun	30-Nov	PERMIT LONG
09219	TRISH	3,324	0	3,272		6,596	554	CATTLE	15-May	15-Oct	PERMIT LONG
10102	STEWART CREEK	165,025	9,152	3,439		177,616	12,751	CATTLE/ SHEEP	1-Mar	30-Dec	ROTATION
10103	CYCLONE RIM	291,954	13,489	3,165		308,608	31,658	CATTLE/ SHEEP	1-Mar	28-Feb	ROTATION
10201	BUZZARD	51,941	12,838	11,286	4,259	80,324	11,413	CATTLE	1-Mar	30-Sep	ROTATION
10202	BUZZARD RANCH MEADOW	526	515	3,935		4,976	339	CATTLE	1-Mar	28-Feb	ROTATION
10203	CHERRY CREEK	29,500	4,261	2,012		35,773	4,842	CATTLE	1-May	18-Oct	ROTATION
10204	DESERT CLAIM	360	0	200		560	75	CATTLE	1-Jul	18-Oct	ROTATION
10205	BAR ELEVEN	51,570	1,051	1,635		54,256	11,419	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
10207	FERRIS MOUNTAIN	35,729	3,352	3,833		42,914	4,711	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
10209	JUNK CREEK	10,366	1,139	198	1,133	12,836	2,095	CATTLE	1-May	31-Oct	PERMIT LONG
10212	LONG CREEK	5,744	505	4,138	1,243	11,630	1,453	CATTLE	1-Mar	20-Dec	DEFERRED ROTATION
10215	POLE CANYON	4,985	30	447		5,462	750	CATTLE	10-Jul	9-Oct	ROTATION
10216	SAND CREEK	2,309	192	341	1,074	3,916	402	CATTLE	1-Apr	31-Oct	PERMIT LONG

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10217	SAND CR. RANCH PAST.	796	645	2,578		4,019	108	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
10218	SEMINOE	80,025	4,821	66,309	6,548	157,703	11,066	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
10219	STATION 8	5,570	0	0	423	5,993	804	CATTLE	21-May	30-Nov	ROTATION
10220	TAPERS	770	0	160		930	99	CATTLE	1-Jun	11-Oct	PERMIT LONG
10221	STONE	77,920	6,956	22,972		107,848	12,898	CATTLE/ SHEEP	1-Mar	30-Oct	PERMIT LONG
10222	WOOD CREEK	1,522		361		1,883	282	CATTLE	1-May	15-Oct	PERMIT LONG
10400	NORTH SAVERY CREEK	120	2,070	846		3,036	31	CATTLE	10-May	25-Sep	ROTATION
10442	HORSE PASTURE	160	160	1,240		1,560	24	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
10501	ADAM'S RANCH	26	0	119		145	6	CATTLE	1-Mar	28-Feb	ROTATION
10502	ADOBE TOWN	31,155	400	0		31,555	1,934	CATTLE/ SHEEP	1-Oct	28-Feb	DORMANT SEASON
10503	BIG ROBBER	16,499	960	25		17,484	1,623	CATTLE	15-Apr	31-Oct	PERMIT LONG
10504	BIG ROBBER SPREADERS	1,042	0	0		1,042	114	CATTLE	15-Apr	25-May	PERMIT LONG
10506	CONTINENTAL	26,228	22	40		26,290	3,406	CATTLE	1-May	31-Oct	ROTATION
10508	COTTONWOOD HILL	13,794	630	24		14,448	1,060	CATTLE	1-Apr	31-Oct	DEFERRED ROTATION
10509	COW CREEK	64,681	1,520	1,522		67,723	2,629	CATTLE/ SHEEP	1-Mar	31-Oct	ROTATION
10510	CROOKED WASH	7,269	0	0		7,269	87	CATTLE	1-Jun	31-Oct	ROTATION
10511	ESPITALIER	23,791	323	641		24,755	3,061	CATTLE	1-Jun	31-Oct	ROTATION
10512	GRINDSTONE SPRINGS	8,958	80	0		9,038	462	SHEEP	1-Nov	28-Feb	DORMANT SEASON
10513	LITTLE POWDER MTN	16,197	640	280		17,117	2,217	CATTLE/ SHEEP	1-Mar	15-Dec	ROTATION

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
10515	MEXICAN FLATS	15,077	710	0		15,787	1,695	CATTLE/ SHEEP	15-Mar	30-Nov	ROTATION
10516	MEXICAN GRAVES	18,113	2,080	80		20,273	1,493	CATTLE/ SHEEP	15-Nov	30-Sep	ROTATION
10517	OPPENHEIMER	12,088	0	1,853		13,941	1,182	CATTLE	1-May	30-Sep	DEFERRED ROTATION
10518	POISON BUTTES	5,815	422	320		6,557	696	CATTLE	1-Apr	31-Oct	DEFERRED ROTATION
10519	POWDER MOUNTAIN	8,922	640	640		10,202	923	CATTLE/ SHEEP	1-Apr	31-Oct	PERMIT LONG
10520	POWDER RIM ROTATION	46,532	0	280		46,812	5,839	CATTLE/ SHEEP	1-Mar	30-Nov	DEFERRED ROTATION
10521	RED CREEK	31,916	0	280		32,196	2,924	CATTLE/ SHEEP	1-Mar	28-Feb	YEARLONG PERMIT
10522	RIVER BOTTOM	333	0	0	642	975	281	CATTLE	1-Apr	15-Nov	DEFERRED ROTATION
10523	ROTTEN SPRINGS	20,956	40	0		20,996	1,573	CATTLE/ SHEEP	1-Dec	31-Aug	ROTATION
10524	SAND CREEK	29,421	0	0		29,421	3,377	CATTLE/ SHEEP	15-Nov	10-Apr	DORMANT SEASON
10525	SOUTH BARREL	9,311	720	198		10,229	778	CATTLE/ SHEEP	25-Mar	5-Jun	ROTATION
10526	SOUTH FLAT TOP	17,727	640	480		18,847	1,592	CATTLE	15-Apr	15-Nov	ROTATION
10527	V SPREADERS	320	0	0		320	150	CATTLE	1-Sep	24-Nov	ROTATION
10528	WILLOW CREEK	74,393	837	1,212		76,442	5,698	CATTLE	1-Nov	28-Feb	DORMANT SEASON
10529	HEADQUARTERS RANCH	142	320	150		612	25	CATTLE/ SHEEP	1-Mar	28-Feb	ROTATION
10530	SOUTH MUDDY	1,562	0	0		1,562	103	CATTLE	1-Apr	31-Oct	ROTATION
10531	GEORGE DEW	400	0	450		850	62	CATTLE	1-Nov	28-Feb	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
10532	44 RANCH	888	218	690		1,796	59	CATTLE	1-May	31-Oct	ROTATION
10601	BADWATER	10,251	1,280	10,246		21,777	1,201	SHEEP	15-Apr	30-Nov	DORMANT SEASON
10602	BULL CANYON	3,076	0	4,612		7,688	748	CATTLE	15-Apr	31-Oct	PERMIT LONG
10604	COALBANK WASH	3,833	0	3,836		7,669	480	CATTLE	1-Jun	31-Oct	DEFERRED ROTATION
10607	ECHO SPRINGS	20,863	1,320	22,732		44,915	2,304	CATTLE	1-Apr	31-Oct	DEFERRED ROTATION
10608	EMIGRANT	1,285	840	4,661		6,786	85	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
10609	FILLMORE	17,449	640	21,834		39,923	3,374	CATTLE	15-May	20-Sep	DEFERRED ROTATION
10610	SOUTH LACLEDE	34,328	41	18,519	7,548	60,436	3,531	SHEEP/ CATTLE	1-Mar	28-Feb	ROTATION
10611	NORTH BARREL	31,419	600	26,540		58,559	2,930	CATTLE	1-Nov	30-Apr	DORMANT SEASON
10612	NORTH PINE BUTTE	1,316	0	1,034		2,350	116	CATTLE	1-Apr	31-Oct	ROTATION
10613	NORTH LACLEDE	16,934	0	20,759	4,028	41,721	939	SHEEP	1-Mar	10-Apr	ROTATION
10614	OLSON RANCH PASTURE	240	0	0		240	50	CATTLE	1-Jun	17-Sep	PERMIT LONG
10615	RINER	21,663	1,434	28,216	5,762	57,075	3,134	CATTLE	1-Mar	15-Jan	ROTATION
10616	SIXTEEN MILE	37,513	1,280	42,716		81,509	3,628	CATTLE/ SHEEP	1-Mar	10-Nov	PERMIT LONG
10619	SOUTH RED DESERT	4,992	0	5,374		10,366	756	CATTLE	1-Mar	28-Feb	ROTATION
10620	SOUTH WAMSUTTER	14,028	1,278	15,323		30,629	1,115	CATTLE	15-Apr	30-Nov	DEFERRED ROTATION
10621	TIPTON	30,227	0	30,452		60,679	4,752	CATTLE	1-Mar	28-Feb	DEFERRED ROTATION
10623	PINE GROVE/ BOLTEN	21,606	2,329	21,781		45,716	12,800	CATTLE	1-Jun	31-Oct	DEFERRED ROTATION

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
10624	NORTH BAGGS	179	11	551		741	18	CATTLE	1-Mar	31-Dec	DEFERRED ROTATION
10625	SOUTH PINE BUTTE	257	0	800		1,057	34	CATTLE	7-Mar	28-Feb	ROTATION
10626	LAZY Y S RANCH	8,690	0	9,110		17,800	1,371	CATTLE	1-Mar	31-Oct	ROTATION
10720	SHAMROCK HILLS	19,556	160	19,434		39,150	1,678	CATTLE	1-Mar	28-Feb	ROTATION
10721	BRIMMER PASTURES	291	0	1,034		1,325	18	CATTLE	1-Jun	30-Nov	ROTATION
10722	CHAIN LAKES	30,629	640	30,987		62,256	0	SHEEP	15-Sep	15-Jun	PERMIT LONG
11000	TEDDY CREEK	826	0	0		826	36	CATTLE	1-Jun	15-Oct	PERMIT LONG
11001	A BAR A RANCH	5,788	1,270	20,869		27,927	1,101	CATTLE	1-Mar	28-Feb	ROTATION
11002	WARD GULCH	595	640	2,800		4,035	104	CATTLE	1-Jul	30-Sep	PERMIT LONG
11003	CORRAL CREEK	1,320	0	0		1,320	132	CATTLE	1-May	31-Oct	PERMIT LONG
11004	BENNETT PEAK	1,800	0	1,440		3,240	143	CATTLE	1-May	31-Oct	PERMIT LONG
11005	WOOD HILL	736	0	4,960		5,696	116	CATTLE	1-May	31-Oct	PERMIT LONG
11006	SILVER SPUR	3,075	1,280	15,427		19,782	587	CATTLE	15-May	1-Oct	PERMIT LONG
11008	MINER CREEK	3,453	640	175		4,268	284	CATTLE	25-May	25-Sep	PERMIT LONG
11011	OTTO CREEK	1,266	0	1,470		2,736	51	CATTLE	1-Jun	15-Oct	PERMIT LONG
11012	SILVER SPUR NORTH	1,348	0	0		1,348	177	CATTLE	15-May	1-Jul	PERMIT LONG
11013	TENNANT CREEK	729	0	431		1,160	127	CATTLE	15-Jun	2-Oct	SPLIT SEASON
11014	KRAFT RANCH	240	0	0		240	12	CATTLE	1-Jun	30-Sep	PERMIT LONG
11015	FLYING DIAMOND	1,081	0	120		1,201	220	CATTLE	1-Jun	1-Jul	PERMIT LONG
11016	SKYLINE	219	0	1,158		1,377	42	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
11017	COTTONWOOD	1,966	0	1,160		3,126	220	CATTLE	1-Jun	31-Oct	PERMIT LONG
11018	BEAVER CR HILLS	1,626	640	1,553		3,819	317	CATTLE	10-May	10-Sep	PERMIT LONG
11019	ALBERT H. OLDMAN	560	0	0		560	48	CATTLE	1-Jun	15-Sep	DEFERRED ROTATION
11020	EAST FORK	200	640	640		1,480	20	CATTLE	1-May	31-Oct	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
11023	ARTHUR ROUSE	1,877				1,877	251	CATTLE	10-May	30-Sep	PERMIT LONG
11024	BEAVER CR HILLS	660	640	2,178		3,778	142	CATTLE	25-May	31-Oct	PERMIT LONG
11025	ENCAMPMENT RIVER	195	0	0		195	22	CATTLE	1-Jun	31-Jul	PERMIT LONG
11026	RYAN RANCHES	785	0	278		1,066	78	CATTLE	20-May	20-Sep	PERMIT LONG
11027	SANGER	5,012	0	10,454		15,466	699	CATTLE	1-May	30-Sep	PERMIT LONG
11028	PLATTOGA RANCH	2,400	0	0		2,400	236	CATTLE	15-May	15-Sep	PERMIT LONG
11029	SAULCY	3,172	588	480		4,240	291	CATTLE	1-Jun	15-Sep	PERMIT LONG
11031	NORTH FORK	961	0	673		1,634	63	CATTLE	1-Jun	29-Aug	PERMIT LONG
11032	COTTON RESERVOIR	1,880	0	1,000		2,880	270	CATTLE	1-Jun	31-Oct	PERMIT LONG
11033	ANTELOPE CREEK	643	0	0		643	45	CATTLE	1-Jul	15-Sep	PERMIT LONG
11034	WIANT	320	0	0		320	27	CATTLE	20-May	31-Oct	PERMIT LONG
11036	COTTONWOOD CORRAL CR.	2,037	0	1,518		3,555	234	CATTLE	20-May	15-Sep	PERMIT LONG
11037	RIVER MEADOWS RANCH	320	0	353		673	25	CATTLE	1-May	31-Oct	PERMIT LONG
11038	PIERSON	35	21	0		56	8	CATTLE	21-Jun	20-Sep	PERMIT LONG
11039	LITTLE BEAVER CREEK	800	640	480		1,920	160	CATTLE	1-May	31-Oct	PERMIT LONG
11041	SO. CEDAR CR.	20	120	760		960	8	CATTLE	1-May	31-Oct	PERMIT LONG
11042	DUFUNNY	240	0	820		1,060	20	CATTLE	1-Jun	30-Oct	PERMIT LONG
11043	BEAVER CR SOUTH	20	0	1,243		1,323	11	CATTLE	10-May	10-Sep	PERMIT LONG
11044	SOWDER-MCNAMEY	355	640	1,710		2,705	92	CATTLE	1-May	31-Oct	PERMIT LONG
11046	PIERCE	20	0	0		20	3	CATTLE	1-May	31-Oct	PERMIT LONG
11047	HORN AND MEASON	785	0	457		1,242	67	CATTLE	1-May	31-Oct	PERMIT LONG
11048	KENNADAY	1,160	0	0		1,160	137	CATTLE	1-May	31-Oct	PERMIT LONG
11049	PROSPECT MTN.	7,869	330	1,693		9,892	1,520	CATTLE	1-Jun	15-Oct	DEFERRED ROTATION
11050	PLATT MINE	899	0	455		1,354	226	CATTLE	1-Jun	30-Sep	PERMIT LONG

Allotment Number	Allotment Name	Public Acres	State Acres	Private Acres	Other Fed Acres	Total Acres	Total Federal AUMs	Class of Livestock	On Date	Off Date	Grazing Management System
11052	JOHN ROUSE	80	0	933		1,013	2	HORSE	25-May	24-Jun	PERMIT LONG
11059	HERRING RANCH PASTUR	80	0	0		80	8	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
11060	COW CAMP	350	0	464	9	823	93	CATTLE	1-Jun	25-Sep	PERMIT LONG
20223	RANCH PASTURE	56	0	299		355	9	CATTLE	1-Mar	30-Jun	PERMIT LONG
20613	PLATTE RIVER	8,018	1,280	8,410		17,708	1,577	CATTLE	1-Apr	15-Nov	ROTATION
21051	OWL CREEK	138	0	1,107		1,245	14	CATTLE	1-Mar	28-Feb	YEARLONG PERMIT
21053	RAINBOW CANYON	622	0	48		670	147	CATTLE	1-Jun	1-Sep	PERMIT LONG
21054	HEATHER CR LAND CO	40	0	0		40	4	CATTLE	10-May	31-Oct	PERMIT LONG
PERCENTAGES		53.3%	5.4%	40.4%	0.9%	100.0%	100.0%				
TOTALS		3,394,338	343,636	2,571,642	55,650	6,365,266	469,575				

APPENDIX 30—PROBABLE FOSSIL YIELD CLASSIFICATION, BY FORMATION, STATE OF WYOMING

**Table A30-1. Probable Fossil Yield Classification (PFYC), By Formation,
State of Wyoming**

Formation	Age	Class ¹	Geologic Map ²
Adaville Formation	Upper Cretaceous	3	Kav
Alcova Limestone	Middle Triassic	3	TRc, TRPcg, TRPjs, MzPz
Almond Formation	Upper Cretaceous	3	Kal, Kmv
Amsden Formation	Pennsylvanian to Upper Mississippian	3	PIPMa, PIPM, PM, MzPz
Ankareh Formation	Upper and Lower Triassic	3	JTRnd, TRad
Aspen Shale or Formation	Lower Cretaceous	3	Ka
Arikaree Group or Formation	Miocene and Oligocene	5	Tmo
Aycross Formation	Middle Eocene	5	Ta
Bacon Ridge Sandstone	Upper Cretaceous	3	Kb, Ksb
Battle Spring Formation	Eocene to Upper Paleocene	3	Tbs
Baxter Shale	Upper Cretaceous	3	Kba
Bearpaw Formation	Upper Cretaceous	3	Kfb, Klm
Bear River Formation	Lower Cretaceous	3	Kbr
Belle Fourche Shale	Upper Cretaceous	3	Kgb, Kgbm
Bighorn Dolomite	Upper Ordovician	2	Ob, DO, OC, MDO, MO, Pzr
Bishop Conglomerate	Oligocene	3	Tbi
Blair Formation	Upper Cretaceous	3	Kbl
Blind Bull Formation	Upper Cretaceous	3	Kbb
Bridger Formation	Middle Eocene	5	Tb
Browns Park Formation	Late to Middle Miocene	2	Tm
Brule Formation	Oligocene	5	Twrb, Twr
Bug Formation	Pleistocene to Pliocene	2	QTb
Caldwell Canyon Volcanics	Pliocene and Miocene	2	Tcv
Cambrian Units	Cambrian	2	Cr, Pzr
Camp Davis Formation	Middle Miocene	2	Tcd
Carlile Shale	Upper Cretaceous	3	Kcl, Knc
Casper Formation	Permian to Pennsylvanian	3	PIPc, PIPcf, PIPM, MzPz
Chadron Formation	Oligocene and Eocene	5	Twrc, Twr
Chugwater Group or Formation	Triassic	3	JTRnd, JTRgc, TRc, TRcd, TRPcg, TRPjs, MzPz
Cloverly Formation	Lower Cretaceous	5	KJ, KJs, KJg, KTR, MzPz

Formation	Age	Class ¹	Geologic Map ²
Coalmont Formation	Eocene and Paleocene	3	Tco
Cody Shale	Upper Cretaceous	3	Kc, Kcf
Cokeville Formation	Lower Cretaceous	3	Kss
Colter Formation	Lower Miocene	2	Tc
Conant Creek Tuff	Upper Miocene	2	Tcc
Crandall Conglomerate	Lower Eocene	3	Tcr
Crooks Gap Conglomerate	Middle Eocene	3	Tcg
Crow Mountain Sandstone	Upper Triassic	3	TRc, TRPcg, TRPjs, MzPz
Darby Formation	Mississippian to Devonian	2	MD, MDO, Pzr
Deadwood Formation	Ordovician to Cambrian	2	OC, Pzr
Devils Basin Formation	Upper Paleocene	3	Tdb
Dinwoody Formation	Lower Triassic	3	JTRnd, TRad, TRcd, TRPcg, MzPz
Eagle Sandstone	Upper Cretaceous	3	Ket
Ellis Group	Upper to Middle Jurassic	3	KJk
Englewood Limestone	Lower Mississippian to Lower Devonian	3	MDe, Pzr
Ericson Sandstone	Upper Cretaceous	3	Ke
Evanston Formation	Paleocene to Upper Cretaceous	3	TKe
Everts Formation	Upper Cretaceous	3	Ket
Fall River Formation	Lower Cretaceous	3	KJ
Ferris Formation	Paleocene to Upper Cretaceous	5	TKf
Flathead Sandstone	Middle Cambrian	2	OC, Cr, Pzr
Forelle Limestone	Permian	2	TRPjs, Pfs
Fort Union Formation	Paleocene	3	Tfu, Tft, Tflt, Tfl, Tfl, Tftr
Fountain Formation	Upper to Middle Pennsylvanian	2	PIPcf
Fowkes Formation	Pliocene (?) and Eocene	3	Tf
Fox Hills Formation	Upper Cretaceous	3	Kfh, Kfl, Kfb, Klm
Frontier Formation	Upper Cretaceous	3	Kf, Kft, Kcf, Knt
Gallatin Group or Limestone	Upper Cambrian	2	OC, Cr, Pzr
Gannett Group	Lower Cretaceous	3	Kg
Glacial Deposits	Holocene and Pleistocene	1	Qg
Goose Egg Formation	Lower Triassic to Permian	2	TRPg, TRPcg, MzPz
Greenhorn Formation	Upper Cretaceous	3	Kgb, Kgbm
Green River Formation	Middle to Lower Eocene	5	Tgl, Tglu, Tgrw, Tgt, Tgw, Tgwt, Twg
Gros Ventre Formation	Upper and Middle Cambrian	2	OC, Cr, Pzr
Guernsey Formation	Upper Devonian	2	MDg

Formation	Age	Class ¹	Geologic Map ²
Gypsum Spring Formation	Middle Jurassic	3	KJg, KTR, Jsg, Jst, JTR, JTRgn, JTRnd, JTRgc, MzPz
Hanna Formation	Upper Paleocene	5	Tha
Harebell Formation	Upper Cretaceous	3	Kha
Hartville Formation	Permian to Mississippian (?)	3	PIPh
Heart Lake Conglomerate	Pliocene	2	Thl
Hilliard Shale	Upper Cretaceous	3	Kh
Hoback Formation	Paleocene	5	Th
Hominy Peak Formation	Upper Eocene	3	Thp
Ice Point Conglomerate	Upper Eocene	3	Tip
Indian Meadows Formation	Lower Eocene	5	Tim, Twim
Inyan Kara Group	Lower Cretaceous	3	KJ
Jefferson Formation	Upper Devonian	2	MD, DO, MDO
Jelm Formation	Upper Triassic	3	TRc, TRPjs
Kootenai Formation	Upper Cretaceous	3	KJk
Laketown Dolomite	Upper and Middle Silurian	2	SI
Lakota Formation	Lower Cretaceous	3	KJ
Lance Formation	Upper Cretaceous	5	KI, KIm
Landslide Creek Formation	Upper Cretaceous	5	KIc
Langford Formation	Eocene	2	Ttl, Tts
Lebo Member	Middle Paleocene	3	Tfl, Tftl, Tflt
Lewis Shale	Upper Cretaceous	3	Kle, Kfl, KIm, Kml
Lodgepole Formation	Lower Mississippian	3	PIPM, Mm, MD, MDO, MO, Pzr
Madison Limestone	Mississippian through Upper Devonian	3	Mm, PIPM, MD, MDO, MO, Pzr
Meagher Limestone	Middle Cambrian	2	OC
Medicine Bow Formation	Upper Cretaceous	3	Kmb
Meeteetse Formation	Upper Cretaceous	3	Km, KIm, Kml
Mesaverde Group or Formation	Upper Cretaceous	3	Kmv, Kal, Ke, Kr, Kbl
Minnekahta Limestone	Permian	3	Pm, Pmo, Pzr
Minnelusa Formation	Pennsylvanian	2	PIPm, Pzr
Mission Canyon Formation	Mississippian	3	PIPM, Mm, MD, MDO, MO, Pzr
Moonstone Formation	Upper Miocene	3	Tmu
Morrison Formation	Upper Jurassic	5	KJk, KJ, KJs, KJg, KTR, MzPz
Mowry Shale	Lower Cretaceous	3	Kmr, Kmt, Knt, Kgbm, Kft
Newcastle Sandstone	Lower Cretaceous	3	Kns

Formation	Age	Class ¹	Geologic Map ²
Niobrara Formation	Upper Cretaceous	5	Kn, Ksn, Knt, Knc
North Park Formation	Upper Miocene	3	Tmu
Norwood Tuff	Pliocene (?) and Eocene	3	Tf
Nugget Sandstone	Jurassic (?) and Triassic (?)	3	JTRn, JTRnd, KTR, JTR, JTRgn, JTRgc, MzPz
Ogallala Group or Formation	Pliocene to Miocene	5	Tmu
Opeche Shale	Permian	2	Pmo, Pzr
Pahasapa Limestone	Mississippian	2	Pzr, MDe
Park Shale	Middle Cambrian	2	OC
Pass Peak Formation	Lower Eocene	3	Tp
Phosphoria Formation	Permian	3	Pp, PIPMa, MzPz
Pierre Shale	Upper Cretaceous	3	Kp
Pinyon Conglomerate	Paleocene to Upper Cretaceous	3	TKp
Popo Agie Member	Upper Triassic	3	TRc, TRPcg, TRPjs, MzPz
Preuss Formation or Sandstone	Upper to Middle Jurassic	3	Jst
Quadrant Formation	Pennsylvanian	2	PIPMa
Quealy Formation	Lower Cretaceous	3	Kss
Red Peak Member	Lower Triassic	2	TRc, TRPcg, TRPjs, MzPz
Rierdon Formation	Upper Jurassic	3	KJk
Rock Springs Formation	Upper Cretaceous	3	Kr
Sage Junction Formation	Lower Cretaceous	3	Kss
Salt Lake Formation	Pliocene and Miocene	3	Tsl
Satanka Shale	Permian	2	TRPjs, Pfs
Sawtooth Formation	Upper Jurassic	3	KJk
Shooting Iron Formation	Pliocene	2	Tsi
Skull Creek Shale	Lower Cretaceous	3	Kns
Smiths Formation	Lower Cretaceous	3	Kss, Kws
Sohare Formation	Upper Cretaceous	3	Kso, Ksb
South Pass Formation	Upper Miocene	3	Tmu
Spearfish Formation	Upper Triassic to Upper Permian	2	TRPs
Split Rock Formation	Middle to Early Miocene	3	
Steele Shale	Upper Cretaceous	3	Ks, Ksn
Stump Formation	Upper to Middle Jurassic	3	Jst
Sundance Formation	Upper Jurassic	5	Js, KJs, KJg, KTR, Jsg, JTR, MzPz
Sunlight Group	Upper Eocene	1	Ts, Tts
Swift Formation	Upper Jurassic	3	KJk

Formation	Age	Class ¹	Geologic Map ²
Tatman Formation	Lower Eocene	5	Tta
Teewinot Formation	Upper Miocene	3	Tte
Telegraph Creek Formation	Upper Cretaceous	3	Ket
Tensleep Sandstone	Permian to Pennsylvanian	2	PIPMa, PM, MzPz
Tepee Trail Formation	Upper Eocene	5	Tt
Tertiary, undiff.	Pliocene to Oligocene	3	Tu
Thaynes Limestone	Lower Triassic	3	JTRnd, TRad
Thermopolis Shale	Lower Cretaceous	3	Kmt, Kft, Knt
Thomas Fork Formation	Lower Cretaceous	3	Kss
Three Forks Formation	Upper Devonian	2	MD, DO, MDO
Tongue River Member	Upper Paleocene	3	Tftr, Tftl
Tulloch Member	Lower Paleocene	3	Tft, Tflt
Twin Creek Limestone	Upper to Middle Jurassic	3	Jst
Two Ocean Formation	Eocene	2	Ttl, Tts
Wagon Bed Formation	Middle Eocene	5	Twb
Wapiti Formation	Upper Eocene	1	Twp, Tts, Ts
Wasatch Formation	Lower Eocene	5	Tw, Tgc, Tgrw, Twc, Twd, Twg, Twk, Twlc, Twm, Twmo, Twn
Washakie Formation	Upper Eocene	5	Twa
Washburn Group	Middle Eocene	1	Taw
Wayan Formation	Lower Cretaceous	3	Kws
Wells Formation	Permian to Pennsylvanian	3	PIPMa, PIPM
White River Group	Oligocene and Eocene	5	Twr, Twrb, Twrc, Twru, Tmo
Whitewood Dolomite	Upper Ordovician	2	OC, Pzr
Wiggins Formation	Upper Eocene	5	Twl
Willwood Formation	Lower Eocene	5	Twl
Wind River Formation	Lower Eocene	5	Twdr, Twim
Winnipeg Formation	Middle Ordovician	2	OC, Pzr
Wolsey Shale	Middle Cambrian	2	OC
Woodside Formation or Shale	Lower Triassic	3	JTRnd, TRad

¹ Ross Secord, Northern Great Plains Probable Fossil Yield Classification Report, Univ. of Wyoming, 1996; Peter Robinson, David Daitch, and Jennifer Haessig, Fossil Vertebrate Localities of Southwestern Wyoming: A Literature Search, Locality Record, and Formation Evaluation, Univ. of Colorado Museum, BLM Contract KAA 000002, 2002; professional judgment by Dale Hanson, Regional Paleontologist, Wyoming State Office, BLM, 2002.

² As the geologic map uses special characters not available in standard font sets, the following existing characters, which seemed close to geologic symbols, were used (D. Hanson, 2002): TR—Triassic Period; IP—Pennsylvanian Period; C—Cambrian Period; @—Proterozoic and late Archean times. All other symbols are the same as those commonly used in geologic mapping. Source: Geologic Map of Wyoming. Compiled by Love and Christiansen, 1985.

APPENDIX 31—RAWLINS FIELD OFFICE NOXIOUS WEED PREVENTION PLAN

NOXIOUS WEED PREVENTION PRACTICES

Land Use Planning

Land use planning for noxious weed prevention involves the following actions:

- Working with federal, county, and city planning staff and zoning committees to include consideration of noxious weed management when developing or approving plans, permits, or leases.
- Including noxious and invasive weed risk factors and prevention considerations in all environmental analyses for projects, permits, plans, and alternative development.

Surface Disturbance

Surface disturbance considerations for noxious weed prevention include the following policies:

- Minimize the amount of surface disturbance when possible to reduce the area for noxious and invasive weed establishment. Reestablish vegetation on all disturbed soil from construction, reconstruction, and maintenance activities, except road travel ways.
- Accomplish reseeding during the first available window of opportunity.
- Require certified noxious weed-free seed or testing at a suitable laboratory before allowing the use of the seed for any reclamation or rehabilitation project.
- Require certified noxious weed-free straw or hay for use as mulch.
- Require power- or high-pressure cleaning of construction equipment prior to moving into relatively noxious weed-free areas and/or leaving known noxious weed-infested areas. This practice currently is used on multistate and multicounty projects.
- Inspect gravel pits and fill sources to ensure the material comes from noxious weed-free sources.
- Monitor the construction site for noxious weed-control needs until vegetation is reestablished.
- Retain reclamation bonds for noxious weed control until the site is returned to the desired vegetative condition.
- Remove noxious weed seed sources from adjacent sites or from the access route that may contaminate the construction site.

Vehicle Management

Vehicle management for noxious weed prevention includes the following policies:

- Survey roads for the presence of noxious weed sources before maintenance activities. Control noxious weeds if necessary before maintaining the roadway.

- Reseed disturbed areas that are not part of the road running surface or that are not needed for maintenance purposes.
- Retain desirable roadside vegetation to discourage noxious weeds.
- Remove noxious weed seed sources or control noxious weeds that could be picked up by passing vehicles on significant access routes.
- Require power- or high-pressure cleaning of off-road equipment before moving into relatively noxious weed-free areas.
- Ensure that noxious weed prevention and related resource protection is considered in travel management plans. Close or reduce the number of vehicle trails in noxious weed-infested areas to reduce the spread of noxious weeds.

Livestock Management

Livestock management for noxious weed prevention includes the following policies:

- Avoid trailing livestock through noxious weed infested areas. Where possible, trail on roadways where detection of noxious weeds is more likely to occur.
- Allow only certified noxious weed-free hay and grain (whole, rolled, steamed, or cubed) or pelletized feeds to be fed on federally managed lands. Emergency feeding may be exempted with written authorization from the field manager.
- Manage grazing allotments to prevent excessive soil disturbance at salt licks, watering sites, and other livestock concentration areas.
- Avoid grazing any reseeded sites until vegetation is well established.
- Hold livestock used in the cultural management of noxious weeds in a noxious weed-free environment for a period of time before and after moving the livestock into the noxious weed management area. This practice allows the animals to clean their digestive tract of noxious weed seeds.

Recreation Sites

Recreation site considerations for noxious weed prevention involve the following policies:

- Ensure that areas under recreation permit have onsite noxious weed control, and minimize the spread to other areas.
- Require that all pack and saddle stock use only certified noxious weed-free feeds and straw bedding.
- Sign trail heads and campgrounds for noxious weed awareness, noxious weed prevention, and noxious weed reporting techniques.

Fire and Fuels Management for Wildland Fires and Fuels/Vegetation Treatment

Fire and fuels management for wildland fires and fuels/vegetation treatment, in consideration of noxious weed prevention, includes the following policies:

- Require the cleaning of fire equipment following fire activities in noxious weed-infested areas. If possible, complete the cleaning before leaving the fire site.
- Consider noxious weed prevention measures in all fire rehabilitation plans by including the noxious weed coordinator on the rehabilitation team.
- Require certified noxious weed-free seed or testing at a suitable laboratory before allowing the use of the seed in fire rehabilitation projects.
- Emphasize “light hand” fire suppression tactics to minimize the amount of surface disturbance.
- Avoid staging equipment and resources in noxious weed areas.
- Avoid off-road travel in noxious weed-infested areas.
- Include a noxious weed control and monitoring plan and a map of noxious weeds in the area as part of the environmental analysis before conducting any fuels/vegetation treatments.

Lands

Land considerations for noxious weed prevention include the following policies:

- Evaluate private lands being considered for federal acquisition through purchase, exchange, or donation for the presence of noxious weeds.
- Include a requirement to control and manage noxious weeds on federally authorized actions.

Early Detection

Early detection for noxious weed prevention includes the following policies:

- Provide training to field personnel in the identification of noxious weed species known to occur in the area and in preventative measures they are expected to follow. Special attention should be given to equipment operators and fire personnel.
- Make noxious weed identification handbooks available to all field-going personnel.
- Make inventory and noxious weed occurrence information readily available to field personnel and personnel actively involved in planning and designing projects.
- Encourage field staff, land owners, and managers to recognize and document noxious weed populations.
- Develop education and awareness programs where visitors and users of the lands assist managers in locating and identifying new invader species.
- Conduct systematic and periodic inventories to detect new noxious and invasive weed infestations.

April 1999

Recommended By:

Assistant Field Manager, Support Center Date

Assistant Field Manager, Minerals & Lands Date

Assistant Field Manager, Resources Date

Approved By:

Field Manager, Rawlins RMPPA Date

APPENDIX 32—HAZARD MANAGEMENT AND RESOURCE RESTORATION PROGRAM

The Hazard Management and Resource Restoration Program (HMRRP) is an administrative program with emphasis on management of hazards on public lands to reduce risks to visitors and employees, restore contaminated lands, and carry out emergency response actions.

HMRRP OBJECTIVES

The objectives of the HMRRP are to—

- Identify and control imminent hazards or threats to human health and/or the environment from hazardous substance releases on public lands
- Promote working partnerships with states, counties, communities, other federal agencies, and the private sector to prevent pollution and minimize hazardous waste on public lands
- Provide hazardous materials management training to Bureau of Land Management (BLM) employees and educate public land users concerning laws, rules, and standards
- Require potentially responsible parties to undertake response actions and to pay their fair share or face cost recovery
- Encourage public collaboration in environmental decisionmaking
- Inventory, assess, and manage the cleanup of hazardous substance release sites on public lands that present a potential risk to human health and/or the environment, and to promote healthy ecosystems
- Ensure that solid and hazardous waste treatment, storage, and disposal facilities that might affect public lands are properly located, designed and constructed, consistent with the law, as well as to prohibit Resource Conservation and Recovery Act (RCRA) temporary storage facilities on public lands
- Reduce hazardous waste produced by BLM activities and from authorized uses of public lands through waste minimization programs that include recycling, reuse, substitution, and other innovative, safe, and cost-effective methods of pollution prevention
- Ensure that authorized activities on public lands comply with applicable federal, state, and local laws, regulations, policies, guidance, and procedures
- Ensure appropriate review of authorized activities and application of effective management controls to correct weaknesses.

HMRRP MANDATES AND AUTHORITIES

The HMRRP operates under the following specific mandates and authorities:

Executive Orders

- Executive Order 13148—*Greening of the Government Through Leadership in Environmental Management* (2000).

Federal Laws

- *Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended* (42 United States Code [U.S.C.] 9601 et seq)
- *Resource Conservation and Recovery Act of 1976, as amended* (42 U.S.C. 6901 et seq)
- *Emergency Planning and Community Right-to-Know Act of 1986*
- *Federal Facilities Compliance Act of 1992*
- *Oil Pollution Act of 1990*
- *Occupational Safety and Health Act of 1970* (29 U.S.C. 651 et seq)
- *Clean Water Act of 1972, as amended* (33 U.S.C. 1251 et seq)
- *Federal Land Policy and Management Act of 1976* (43 U.S.C. 1711–1712)
- *National Environmental Policy Act of 1972* (42 U.S.C. 4321)
- *Safe Drinking Water Act of 1974, as amended* (42 U.S.C. 300 et seq)
- *Recreational and Public Purposes Act of 1926, as amended in 1988* (43 U.S.C. 869).

Manual Guidance

- BLM Manual Section 1703—*Hazardous Materials Management*
- BLM Manual Handbook H-1703-1—*CERCLA Response Actions Handbook*
- BLM Manual Handbook H-2101-4—*Preacquisition Environmental Site Assessments*.

Regulations

- *National Contingency Plan Regulations* (40 CFR 300)
- *Natural Resource Damage Assessment Regulations* (43 CFR).

HMRRP RESPONSIBILITIES

HMRRP responsibilities are divided into the following categories:

Hazardous Waste Management

Hazardous waste management involves—

- Oversight of BLM-authorized activities that generate, use, transport, store, or dispose of hazardous waste
- Response to and remediation of contamination from unauthorized activities. Response actions for hazardous waste sites will be in accordance with the *National Contingency Plan* (40 CFR 300) and the *Comprehensive Environmental Response, Compensation, and Liability Act*. As

appropriate, BLM will coordinate with local Emergency Planning committees, the State of Wyoming Department of Environmental Quality, and the U.S. Environmental Protection Agency.

- Minimization of the generation or release of hazardous wastes and pollution on BLM-administered lands and facilities. Hazardous wastes produced by BLM activities will be reduced by waste minimization programs that include recycling, “green” product substitution, reuse, and other methods of pollution prevention. BLM also encourages lessees and operators to practice waste minimization.

Under current BLM policy, no public land will be leased or permitted for storage, treatment, or disposal of hazardous waste, and public land will not be leased for sanitary landfills. However, land may be sold or exchanged for these purposes under an appropriate land action.

Hazard Management

Hazardous management involves mitigating various physical and environmental hazards present on BLM lands. Illegal solid waste dumping continues to be a problem on BLM-administered lands. Once located, these dumps are removed to reduce the attraction of additional dumping (which may include hazardous wastes) and to minimize safety hazards. On abandoned mine sites, safety concerns include open adits, vertical shafts, abandoned equipment and structures, and explosives.

Emergency Response

Emergency response includes responding to contaminant releases (hazardous materials and petroleum) that pose imminent danger to human health and safety or to the environment. The Rawlins Field Office maintains an Oil, Gas, and Hazardous Substances Spill Plan that outlines specific response guidance for contaminant releases.

Liability and Risk Management

Liability and risk management involves—

- Limiting liabilities to the Federal Government associated with hazardous material contamination on public lands
- Evaluating the risks to human health and safety and to the environment associated with BLM programs that involve hazardous materials.

BLM policy requires identifying responsible individuals liable for hazardous substance releases on public lands. After identification, BLM will ensure that the responsible individuals clean up the contamination or reimburse BLM for incurred cleanup costs.

Program Support

Program support involves—

- Reviewing other BLM program plans or actions to ensure environmental and regulatory compliance. One of the highest potential sources for contaminant releases in the RMPPA is oil/gas development and associated transportation-related activities (pipelines, tanker trucks, service vehicles). Detailed management actions specific to hazardous materials usage are included as part of environmental analyses conducted for specific oil and gas field activities. In

addition, to prevent or minimize environmental damage, BLM attaches stipulations to permits. Oil/gas operations and associated transportation activities also must comply with various local, state, and federal regulations designed to reduce the potential for contaminant release and providing responsibilities for cleanup activities

- Providing specific technical and regulatory information on hazardous material issues
- Conducting environmental site assessments in support of realty actions and land tenure adjustments as per BLM Manual H- 2101-4 (Preacquisition Environmental Site Assessments).

Implementation of BLM activities and BLM-permitted activities is controlled through stipulations and monitoring so that actions comply with applicable federal, state, and local laws, regulations, policies, guidance, and procedures for hazardous materials generation, use, storage, treatment, transportation, and disposal. Violations through accidental occurrences or noncompliance are possible, however the stipulations require mitigation of releases in accordance with applicable laws and regulations. Although industrial operations are regulated to minimize potential spills, accidents cannot be eliminated. Monitoring, oversight, and review of authorized activities, coupled with effective management controls, reduce the severity of impacts from releases. The HMRRP will continue to respond to contaminant releases (hazardous materials and petroleum) that pose imminent danger to human health and safety or to the environment.

The HMRRP will manage and respond to foreseeable hazards on public lands in the same manner as existing management. The program will continue to emphasize protection of public health and safety and the environment, and compliance with the related laws, regulations, and policies.

APPENDIX 33—REASONABLY FORESEEABLE DEVELOPMENTS AND REASONABLY FORESEEABLE ACTIONS TABLES

Where Reasonably Foreseeable Developments (RFD)/Reasonably Foreseeable Actions (RFA) projections for certain resources project no or minimal reasonably foreseeable actions during the life of the plan, those resources are not listed in this appendix. These resources include Air Quality, Cultural Resources, Paleontology, and Socioeconomics.

FORESTRY

Table A33-1. Forestry RFD/RFAs

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Million board feet (MMBF) removal per decade throughout the entire Forestry Program	10 MMBF	20 MMBF	0 MMBF	10 MMBF
Average clear-cuts size per year	10 acres	100 acres	0 acres	10 acres
Acres treated by implementing Stewardship and Service Contracts to comply with current policy, (i.e., Healthy Forest Initiative and Healthy Forest Restoration Act of 2003) Hazardous fire fuels reductions, biomass removal, piling and burning, firewood removal through sales/trade, and all forest health treatments per year	50 to 250 acres	25 to 150 acres	100 to 1,500 acres	50 to 250 acres
Biomass removal through fuels reduction to promote forest health and productivity per year	300 tons	600 tons	300 tons	300 tons
Biomass removal in the form of firewood (by sales to the public) per year	250 cords	1,500 cords	250 cords	250 cords
Commercial and precommercial thinning of stands consisting of post/pole, Christmas tree, and wildling (by sales to the public) per year	5,000 to 6,000 trees	25,000 trees	5,000 to 6,000 trees	5,000 to 6,000 trees

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Average timber sale size (select/clear cuts)	10 (clear-cut max size) to 20 (select cut) acres	100 (clear-cut max size) to 200 (select cut) acres	20 (select cut) acres	20 acre (max select cut size) 10 acre (max clear-cut size)
Average MMBF removal per timber sale (dependent on density of the stand)	20 to 85 MBF	350 MBF	20 to 85 MBF	20 to 85 MBF
Acres treated by commercial and precommercial thinning of stands consisting of post/poles, Christmas trees, and wildlings (by sales to the public) per year	30 to 100 acres	150 acres	50 to 100 acres	30 to 100 acres

FIRE AND FUELS

Table A33-2. Fire and Fuels Management RFD/RFAs

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Wildland urban interface specific actions (burning)	Treat 100 acres, 5 treatments per year	Treat 500 acres, 20 treatments per year	Treat 300 acres, 12 treatments per year	Treat 400 acres, 16 treatments per year
Mechanical and chemical treatments	Treat 100 acres, 10 individual treatments	Treat 500 acres, 20 individual treatments	Treat 300 acres, 12 individual treatments	Treat 400 acres, 16 individual treatments
Fire management	4,000 acres/year	2,000 acres/year	10,000 acres/year	8,000 acres/year

LANDS AND REALTY

Table A33-3. Lands and Realty RFD/RFAs

Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
The demand for disposal of public land will average about 500 acres per year. That figure represents disposal via direct sale, competitive sale, or exchange. Before any disposals, lands will be examined for the presence of high-value	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
<p>resources.</p> <p>Lands containing high surface values will not be disposed of, or the disposal will provide for those values to be preserved. The Rawlins Field Office Land Exchange Criteria will be used to screen potential land exchanges for possible resource conflicts. Therefore, land disposals will not substantially affect resource programs.</p> <p>The effects of utility and transportation development will be mitigated individually. Generally, this will be accomplished by consolidation of new developments into existing routes or by innovative construction techniques that disturb less land and improve reclamation success.</p> <p>Disposal of small, isolated parcels of public land would decrease the cost of public land administration in the Resource Management Plan Planning Area (RMPPA) and enhance efficiency in management of the remaining public lands. In addition, it would decrease conflicts between public land users and private landowners.</p> <p>Competitive sales of small, isolated parcels might lead to pricing beyond the capability of the owners of property adjacent to those parcels. If owners of adjacent or surrounding property could not purchase the isolated parcels, land use conflicts might develop.</p> <p>The lands program is a service program rather than an environmental component. The discussion of the effects on lands in each alternative will be limited to the effects on community expansion opportunity.</p>			
<p>An average of 11 acres per year will be disturbed by the construction of ditches. This equates to 220 acres in 20 years.</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>
<p>Communication site construction will disturb an average of 9 acres per year, or 180 acres over 20 years.</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>
<p>Other facilities will disturb 58 acres per year, or 1,160 acres over 20 years.</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>
<p>A minimum of one new thousand-turbine windpower-generation project will be constructed during the next 20 years.</p> <p>Location would be somewhere within the areas rated as high potential for windpower generation. The windpower facility would disturb approximately 1.94 acres per turbine during construction and 1.28 acres per turbine for the life of project. Disturbance includes pad, access road, transmission line, and substation.</p> <p>Construction time/equipment—</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>

Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
<p>(Refer to Final—Phase 1, Plan of Development—Seawest Energy Land Associates, LLC Wind Farm Project, October 1997). Also, refer to Draft Kennetech/Pacific Corp Windpower EIS, Page 2-30, Table 2.3 for typical power line construction and Pages 2-24, 2-25, and 2-26, Tables 2.5, 2.6, 2.7, and 2.8 for length of time of construction.</p> <p>A total of approximately 6,020 acres (total from above disturbance estimates) will be disturbed by transportation systems, energy projects, and utility systems described above, over 20 years. About 45 percent of the disturbed acreage will be revegetated through reclamation within that time.</p>			
<p>Construction and improvement of roads and highways will disturb 845 acres per year. Approximately 95 percent of these roads will be included in the estimated acreage of disturbance per oil/gas well (see the assumptions for minerals). Therefore, over a 20-year period, the disturbance will amount to 800 acres.</p>	<p>Construction and improvement of roads and highways will disturb 869 acres per year. Over a 20-year period, the disturbance will amount to 828 acres.</p>	<p>Construction and improvement of roads and highways will disturb 695 acres per year. Over a 20-year period, the disturbance will amount to 662 acres.</p>	<p>Construction and improvement of roads and highways will disturb 845 acres per year. Over a 20-year period, the disturbance will amount to 800 acres.</p>
<p>An average of 36 acres per year would be disturbed by the installation of telephone and fiber optic cable. This would amount to 720 acres over a 20-year period. Virtually all of the disturbance from each telephone/fiber optic cable would be reclaimed within 3 to 4 years. In addition, many of the lines and cables rights-of-way (ROW) would overlap, thus reducing any new surface disturbances. Approximately 3.6 acres would be disturbed per mile of construction, assuming one 30-foot width ROW. Disturbance of 36 acres would occur from 10 miles of telephone ROW per year.</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>
<p>An average of 20 acres per year would be disturbed by the installation of power lines. This would amount to 400 acres over a 20-year period. Approximately 80 percent of the disturbance would be reclaimed within 3 to 4 years. Approximately 1.2 acres would be disturbed per mile of construction, assuming one 30-foot width ROW. Disturbance of 20 acres would occur from 17 miles of power line ROW per year.</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1</p>
<p>Pipeline construction will disturb an average of 329 acres per year. Approximately 95 percent of this disturbance will be from oil/gas distribution lines, which are included in the estimates of disturbance per well (see the assumptions for minerals). Therefore, disturbance from transmission pipelines and water lines over 20 years will amount to 313 acres. Four years after construction, vegetation will be partially restored through reclamation.</p>	<p>Pipeline construction will disturb an average of 338 acres per year. Disturbance over 20 years will amount to 322 acres.</p>	<p>Pipeline construction will disturb an average of 270 acres per year. Disturbance over 20 years will amount to 257 acres.</p>	<p>Pipeline construction will disturb an average of 329 acres per year. Disturbance over 20 years will amount to 313 acres.</p>

LIVESTOCK

Table A33-4. Livestock RFD/RFAs

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
General management direction	Existing 10-year average for number and types of projects will continue at the same level.	Increase in water development projects over existing work accomplished, but keep same general mix of projects	Fewer new projects, emphasis on protecting existing water sources, both seeps and fencing-off reservoirs, and fence conversions rather than new fencing (to improve big game movement)	Mixture of projects from Alternatives 2 and 3
Spring/seep protection and development	16 projects/year, disturb 4 acres	16 projects/year, disturb 4 acres	16 projects/year, disturb 4 acres	16 projects/year, disturb 4 acres
Reservoir/pit development	10 projects/year, disturb 15 acres	14 projects/year, disturb 21 acres	10 projects/year with 5 new and 5 fence existing and off-site water, disturb 10 acres	10 projects/year with 8 new and 2 fence existing and off-site water, disturb 12 acres
Wells development	4 projects/year, disturb 2 acres	8 projects/year, disturb 4 acres	4 projects/year, disturb 2 acres	4 projects/year, disturb 2 acres
Fencing development and conversion	8 projects (15 miles)/year, disturb 15 acres	8 projects (15 miles)/year, disturb 15 acres	20 projects (30 miles)/year of existing fence conversion, disturb 0 acres	13 projects/year (23 miles) with 8 new and 5 existing fence conversions, disturb 15 acres
Pipeline development	2 projects (6 miles)/year, disturb 4 acres	4 projects (12 miles)/year, disturb 8 acres	None	4 projects (12 miles)/year, disturb 8 acres
Reservoir maintenance	5 projects/year, disturb 5 acres	5 projects/year, disturb 5 acres	5 projects/year, disturb 5 acres	5 projects/year, disturb 5 acres
Totals for all projects	40 projects/year, disturb 45 acres annually	55 projects/year, disturb 57 acres annually	55 projects/year, disturb 21 acres annually	52 projects/year, disturb 46 acres annually

MINERALS

Table A33-5. Surface Disturbance from Coalbed Natural Gas (CBNG) and Conventional Oil and Gas Wells (Based on Figures Supplied by RMG 12/10/03)

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Number of Wells	8,945	9,198	8,632	8,822
Number of wells abandoned	1,174	1,057	1,131	1,184
Number of well sites reclaimed	1,057	1,086	1,018	1,066
Gross disturbance (acres)	61,895	63,649	56,505	57,819
Gross drilling well road disturbance included in total acres	16,101	16,553	14,666	15,008
Gross drilling well road disturbance in miles	3,388	3,483	3,086	3,158
Gross acres disturbed by pipeline activity included in total acres	6,262	6,437	5,704	5,837
Net disturbance (acres)	16,538	17,013	15,489	15,472
Producing well road disturbance included in total acres	12,908	13,277	11,803	12,077
Net acres disturbed by pipeline activity	2,272	2,337	2,072	2,120

Dated: 8/26/04

Table A33-6. Solid Minerals RFD/RFAs

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Coal development	Two mines in Hanna Basin are in final reclamation. The Carbon Basin mine has produced a minimal amount of coal.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Other solid leasable minerals production	No known economic deposits exist. The lack of economic resources indicates no production would occur.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Locatable minerals exploration	<p>No known economically mineable deposits exist. There are known uranium deposits; however, the current and foreseeable economic climate for uranium is not conducive to active mining. It is anticipated that exploration for locatable minerals will continue to occur with five notice-level activities occurring per year.</p>	<p>All acreage field office-wide would be open to operation under the mining law, maximizing opportunities to discover and develop new mineral reserves. A slight increase, up to two additional notice-level activities, could occur per year. Each notice-level activity would disturb 5 acres or less by regulation.</p>	<p>Large acreages would be withdrawn from operation under the mining law, limiting opportunities to discover and develop new mineral reserves.</p>	<p>Same as Alternative 1</p>
Common variety minerals production	<p>Current contracts allow production of approximately 21 million tons of material over the next 10 years. It is anticipated that contracts will continue to be issued; however, the amount will decrease because, of the 21 million permitted, 20 million is in one sale. Therefore, the amount projected to be sold per year would decrease to less than 1 million tons.</p>	<p>Mineral materials demand is directly tied to other development/maintenance activities such as highway construction and development of roads for oil field use, CBNG production, and recreation access. The best estimate for future production is of a steady increase in demand of approximately 5 percent per year. The average acreage per permit is expected to be 10 acres or less because of State of Wyoming</p>	<p>Areas from which mineral material disposals would be approved would be limited. A decrease in production of mineral materials of 25 to 30 percent would be expected.</p>	<p>Same as Alternative 1</p>

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
		Department of Environmental Quality requirements to avoid having to obtain a small-mine permit rather than a 10-acre exemption.		

OHV

Table A33-7. OHV RFD/RFAs

Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Reclamation will be done and roads closed where necessary to mitigate impacts from off-highway vehicle (OHV) activity. No actions requiring any use of equipment beyond normal 4-wheel drive or motorcycle mileage.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

RECREATION

Table A33-8. Recreation RFD/RFAs

Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Reclamation will be done and developed sites closed where necessary to mitigate impacts from recreational activity. No actions requiring any use of equipment beyond normal 4-wheel drive mileage.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

SPECIAL DESIGNATIONS AND MANAGEMENT AREAS

Table A33-9. Special Designation and Management Area RFD/RFAs

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Wilderness study areas, Wild And Scenic Rivers, Continental Divide National Scenic Trail Special Recreation Management Area (SRMA), Shirley Mountains SRMA, North Platte River SRMA, Jelm Mountain SRMA, Pedro Mountain SRMA	Reclamation will be done and roads closed where necessary to mitigate impacts. No actions requiring any use of equipment beyond normal 4-wheel drive or motorcycle mileage.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
OHV SRMA	Fence OHV area so as to provide children's area, staging area, and build separator fences between OHV courses. Construct and gravel road(s). Build one accessible two-vault restroom in staging area. Construct contoured OHV courses of varying difficulty. Construct elevated berm for observation area. All acres may be disturbed. Estimated casual use would be motorcycles and 4-wheelers 5 months of the year. In addition, there would be an estimated 6 competitive events per year with an average of 50 participants each.	Same as alternative 1. In addition, there would be an estimated 2 competitive events per year with an average of 30 participants each. Average use would be 1.5 hours per participant.	Same as Alternative 1	Same as Alternative 1

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
	Average use would be 2.5 hours per participant.			
Laramie Plains Lakes SRMA	Reclamation will be done and roads closed where necessary to mitigate impacts. Actions requiring any use of equipment beyond normal 4-wheel drive or motorcycle mileage may be required in order to reconstruct Lake Hattie campground as well as additional recreational development as demand arises.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Rawlins Fishing SRMA	Reclamation will be done and roads closed where necessary to mitigate impacts. Actions requiring any use of equipment beyond normal 4-wheel drive or motorcycle mileage may be required in order to reconstruct recreation sites, dredge and deepen reservoir basin, and additional recreational development as demand arises.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

VISUAL RESOURCE MANAGEMENT

Table A33-10. Visual Resource Management (VRM) RFD/RFAs

Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Reclamation will be done and roads closed where necessary to mitigate visual impacts.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

TRANSPORTATION

Table A33-11. Transportation RFD/RFAs

Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Maintenance requirements for existing planning area road network— 120 miles of resource roads (crowned and ditched, surfaced or not) graded per year and any new roads added to the network	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

VEGETATION

Table A33-12. Vegetation RFD/RFAs

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Prescribed fire treatments	1,500 acres/year or 30,000 acres over 20 years (20 projects)	14,000 acres/year or 280,000 acres over 20 years (50 projects)	7,000 acres/year or 140,000 acres over 20 years (100 projects)	10,000 acres/year or 200,000 acres over 20 years (50 projects)
Chemical treatments	1,000 acres/year or 20,000 acres over 20 years (10 projects)	10,000 acres/year or 200,000 acres over 20 years (40 projects)	4,000 acres/year or 80,000 acres over 20 years (40 projects)	6,000 acres/year or 120,000 acres over 20 years (30 projects)
Mechanical treatments	0 acres of treatment	400 acres/year or 8,000 acres over 20 years (8 projects)	800 acres/year or 16,000 acres over 20 years (30 projects)	400 acres/year or 8,000 acres over 20 years (20 projects)

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Total vegetation treatments	This alternative would treat 2,500 acres per year using chemical treatments or prescribed fire.	Under this alternative, approximately 24,400 acres would be treated per year with an emphasis on landscape-scale projects.	Under this alternative, approximately 11,800 acres would be treated per year. Treatment sites would be smaller in size and would be designed to maximize edge effect to increase wildlife habitat values. This would result in more individual treatment sites overall.	Under this alternative, approximately 16,400 acres would be treated per year. There would be a mixture of landscape-scale and smaller-scale treatment sites, depending on the specific resources determined to be of primary importance, such as meeting desired plant community (DPC) goals.

WEEDS

Table A33-13. Noxious and Invasive Weeds RFD/RFAs

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
BLM will control the noxious weeds and non-native invasive plants	Treat 800 acres/year* (includes only noxious species)	Treat 8,000 acres/year (includes cheatgrass, saltcedar and other noxious species, and poisonous plants)	Treat 11,600 acres/year (includes saltcedar, cheatgrass and other invasive species, and noxious species)	Treat 7,700 acres/year (includes noxious and invasive)
Range improvement projects—Assume 5 percent requires treatment	45 acres/year disturbed = 2 acres/year new	57 acres/year disturbed = 3 acres/year new	21 acres/year disturbed = 1 acre/year new	45 acres/year disturbed = 2 acres/year new
Prescribed fire—Assume 10 percent will require treatment	1,500 acres/year disturbed = 150 acres/year new	14,000 acres/year disturbed = 1400 acres/year new	7,000 acres/year disturbed = 700 acres/year new	10,000 acres/year disturbed = 1000 acres/year new
Chemical treatments (Spike)—Assume 0 percent will require treatment; no surface disturbance	1,000 acres/year disturbed = 0 acres/year new	10,000 acres/year disturbed = 0 acres/year new	4,000 acres/year disturbed = 0 acres/year new	10,000 acres/year disturbed = 0 acres/year new

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Mechanical treatments— Assume 0 percent will require treatment; no surface disturbance	0 acres/year disturbed = 0 acres/year new	400 acres/year disturbed = 0 acres/year new	800 acres/year disturbed = 0 acres/year new	400 acres/year disturbed = 0 acres/year new
Operations road blading—Assume 10 percent requires treatment	800 acres/year disturbed = 80 acres/year new	800 acres/year disturbed = 80 acres/year new	800 acres/year disturbed = 80 acres/year new	800 acres/year disturbed = 80 acres/year new
Forestry—Assume 5 percent will require treatment	50 acres/year = 3 acres/year new	100 acres/year = 5 acres/year new	50 acres/year = 3 acres/year new	50 acres/year = 3 acres/year new
Permit and ROW holders (agents) will control weeds: oil and gas-related disturbance—assume 40 percent requires treatment (probably low; assumes same number acres disturbed last 30 years as projected for next 20 years—15 percent requires treatment; should be a conservative number)	3,095 acres/year disturbed = 1,240 acres/year new + 15,000 current acreage requiring treatment (Assume 2,000 acres/year average treated.)	3,183 acres/year disturbed = 1,270 acres/year new + 15,000 current acreage requiring treatment	2,828 acres/year disturbed = 1,130 acres/year new + 15,000 current acreage requiring treatment	3,030 acres/year disturbed = 1,210 acres/year new + 15,000 current acreage requiring treatment
Realty—Assume 10 percent requires treatment (non-oil and gas-related actions)	287 acres/year disturbed = 28 acres/year new	287 acres/year disturbed = 28 acres/year new	287 acres/year disturbed = 28 acres/year new	287 acres/year disturbed = 28 acres/year new
Totals	**BLM = 800 acres being treated Agents = 2,000 acres being treated	**BLM = 9,488 acres requiring treatment Agents = 16,298 acres requiring treatment	**BLM = 12,384 acres requiring treatment Agents = 16,158 acres requiring treatment	**BLM = 8,785 acres requiring treatment Agents = 16,238 acres requiring treatment

* This alternative reflects what is actually being treated and what is planned for treatment from 1994 to 2004. The difference shown in the total reflects what needs treatment vs. what is being treated.

** All weed treatments require standard pickup trucks, 4-wheeler, and/or walking. Some acreage will be treated with a helicopter (may average 20 hours/year in Alternative 1; 60 hours/year in Alternative 2; 100 hours/year in Alternative 3).

SOILS AND WATERSHED

Table A33-14. Soils and Watershed RFD/RFAs

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Stream restoration, low impact, such as using natural materials (rock or unprocessed wood) to encourage channel adjustments; heavy equipment will not be used for this action other than transportation	25 stream miles	25 stream miles	50 stream miles	25 stream miles
Headcut remediation as needed; this action could involve methods such as armoring and structures or providing aspens for beaver dams. Impacts can be determined only for specific projects	10 projects	10 projects	10 projects	10 projects
Shallow groundwater monitoring, precipitation, and stream gaging sites needed to monitor water quality and quantity	50 sites	50 sites	50 sites	50 sites

WILD HORSES

Table A33-15. Wild Horses RFD/RFAs

Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Acres in herd management areas (HMA) would be maintained	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Objective populations (appropriate management levels [AML]) for HMAs will be maintained in the Stewart Creek and Adobe Town HMAs	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
AML will be maintained at 70 wild horses in the Lost Creek HMA	Same as Alternative 1	AML will be increased from 70 to 165 (estimate) in the Lost Creek HMA to protect the rare and unique genetic resource (Spanish trait) found there.	Same as Alternative 1. The rare and unique genetic resource (Spanish trait) would be managed in a larger metapopulation.
Acres to be disturbed by gathering and related management activities will remain at approximately 30 until the conclusion of CY 2004, and then increase gradually to approximately 50 as the individual HMAs transition from population-reduction gathering to population-maintenance activities	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

FISHERIES

Table A33-16. Fisheries RFD/RFAs

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Barrier removal/replacement—Eliminate habitat fragmentation and restore hydrologic function to provide for the life history requirements of fishes	4 projects	2 projects	20 projects	20 projects
Stream restoration—Restore streams to a state of dynamic equilibrium with the flow and sediment supplied by their watershed to provide suitable habitats for fishes	10 miles	5 miles	50 miles	50 miles
Reintroductions—Restore native fishes to portions of their historic range	12 miles	0 miles	50 miles	50 miles
Fishing access development—Provide access to quality recreational fishing opportunities	5 developments	10 developments	2 developments	5 developments

Actions	Alternative 1— No Action	Alternative 2— Development Emphasis	Alternative 3— Protection/ Conservation Emphasis	Alternative 4— Proposed Plan
Research projects— Investigate the habitat requirements, life history strategies, and distribution of native fishes found on BLM lands in the RMPPA	4 projects	4 projects	10 projects	10 projects

APPENDIX 34—DESIGNATED RIGHT-OF-WAY CORRIDOR CRITERIA

A transportation and utility right-of-way (ROW) corridor criteria determination would be undertaken subsequent to the issuance of the Record of Decision (ROD) for this plan.

ROW DEVELOPMENT AND SELECTION CRITERIA

When a new proposal is received subsequent to the designated corridor criteria determination, the purpose would be evaluated based on the criteria listed below. Each proposal would be examined on a case-by-case basis to determine if it meets the corridor criteria. The type, compatibility, proximity to other ROWs, extent/area, and mitigation measures for a ROW would be identified prior to granting additional ROWs within any designated corridor.

The following items would be determined for each designated corridor:

- Types of ROW facilities to be allowed
- ROW activities to be allowed or restricted
- Exact location and width available within the corridor
- Non-ROW activities to be allowed, restricted, or prohibited within the proposed ROW corridor or ROW use area
- Nonstandard or administrative (i.e., resource protection) terms and conditions to be applied to specific ROW facilities that subsequently may be located within the ROW corridor or ROW use area
- Ancillary facilities and “perpendicular” access needed to efficiently gain access to the ROW corridor or ROW use area.

Table A34-1. Designated ROW Corridors

Corridor	Width	Uses
Spence-Bairoil-Jim Bridger 230 kV Transmission Line	1,320'	Overhead utilities only
CIG/Entrega/WIC Transmission lines	1,320'	Buried utilities only
Lost Creek Pipeline	1,320'	Buried utilities only
WAPA 115 kV Transmission Line	1,320'	Overhead utilities only
I-80 Corridor	1,320' on either side of the interstate	Buried utilities only
Highway 789	1,320' east of the highway	Overhead utilities
Rock Springs to Dave Johnston 230 kV Transmission Line	1,320' north from the existing line	Overhead utilities only

APPENDIX 35—SOCIOECONOMIC IMPACT ANALYSIS AND SIGNIFICANCE CRITERIA

ASSUMPTIONS AND METHODS

Significance Criteria

Significance criteria for socioeconomic impacts were determined by analyzing long-term (20-year) trends and fluctuations in certain important economic variables, including total employment and mineral ad valorem taxes associated with natural gas production for the four-county study area. This analysis evaluated these long-term trends to determine the changes likely to occur in the variables under normal conditions. Deviations from the trend over this 20-year period are considered the threshold of what can be tolerated by the regional economy for these two variables. Any changes beyond these thresholds would likely cause significant impacts to local communities.

Figure A35-1 summarizes total annual employment for the study area between 1990 and 2000. It shows that total employment followed an increasing trend (16 percent) during this period. The trend analysis also shows that the regional economy has experienced cyclical fluctuations in employment. Therefore, although total employment increased over time, it is reasonable to assume that in any given year total employment may deviate by 1 percent above or below the trend (e.g., +1,100 to -1,100 jobs).

Deviations in total employment, as measured by the historical trend, were used to define the threshold of significance for this analysis. Thus, if employment impacts due to changes in management associated with RMPPA do not exceed an increase or decrease of 1 percent of the trend, the impact is not considered significant.

The historic trend associated with mineral ad valorem taxes associated with gas production for the study area is summarized in Figure A35-2. This graph shows the estimated value, in inflation-adjusted dollars, of ad valorem taxes associated with gas production in the four-county study area. During this time ad valorem taxes have fluctuated substantially from the trend (e.g., +\$29 million to -\$27 million), and the big spike in 2000 deviated from the trend by 29 million. Given the importance of mineral ad valorem taxes to local government entities, the significance threshold for this variable was set at 15 percent above or below the trend (e.g., +\$4 million to -\$4 million).

Figure A35-1. Total Employment Trend

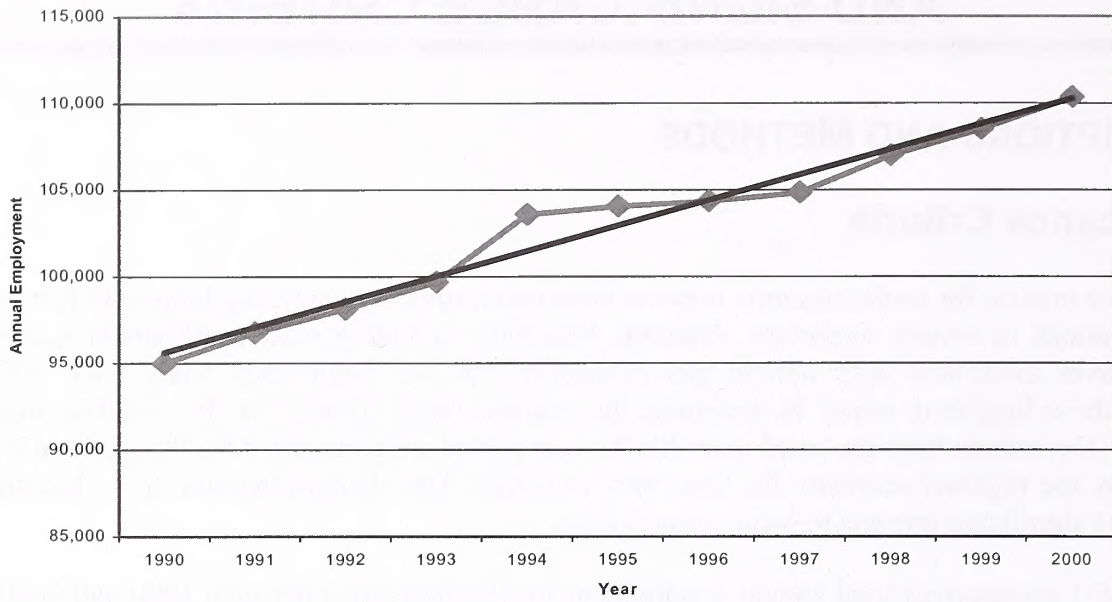
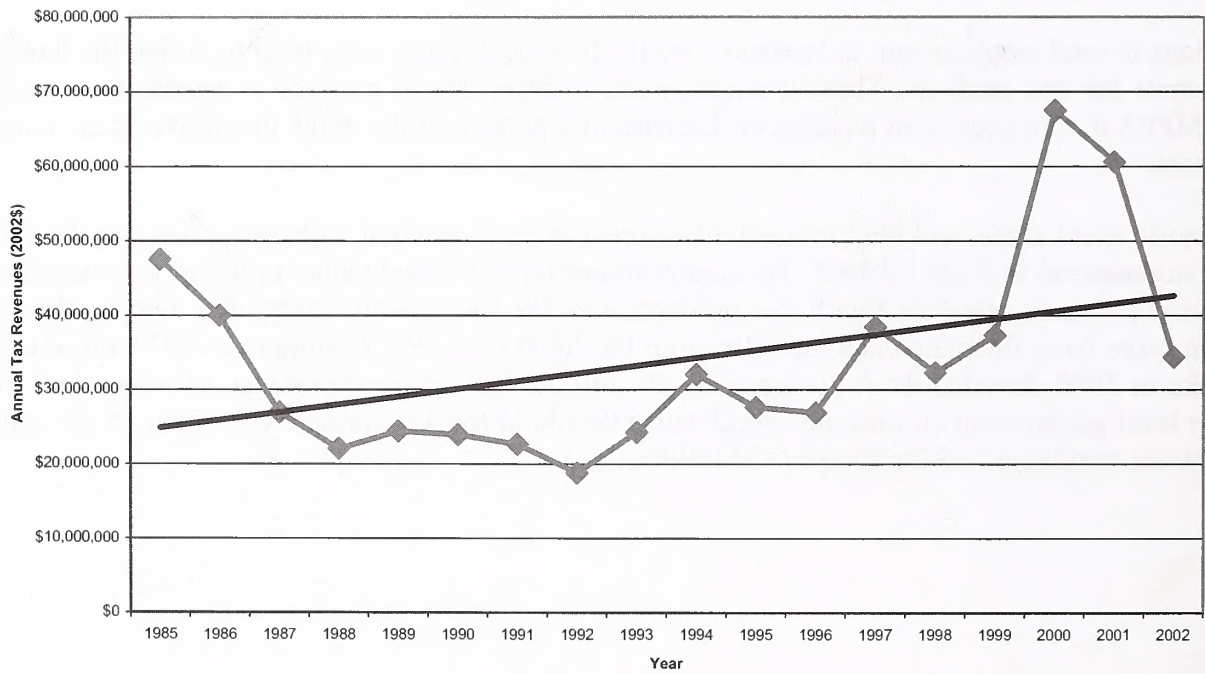


Figure A35-2. Ad Valorem Tax Trend



ECONOMIC IMPACT ANALYSIS METHODOLOGY

The following section provides a detailed summary of the economic impact analysis by resources use.

Modifications of IMPLAN for RMPPA

The Impact Analysis for PLANing (IMPLAN) modeling system is based on national production coefficients. To better reflect local production practices, the oil and gas and cattle production sectors of the four-county IMPLAN model for the Rawlins Resource Management Plan (RMP) were modified. The IMPLAN sectors associated with recreation were not adjusted because it was felt that these sectors were a reasonably accurate representation of the sectors found in the study area.

In IMPLAN, oil and gas production is separated into three sectors (MIG 2000): 38—Natural Gas and Crude Petroleum (production), 39—Natural Gas Liquids (byproducts), and 57—Maintenance and Repair of Oil and Gas Wells (oil and gas field services). Employment for these three sectors was estimated from Wyoming Department of Employment data on covered employment. These estimates were then adjusted to account for self-employment based on Wyoming data from the Bureau of Economic Analysis, U.S. Department of Commerce. Labor earnings for the three sectors were also estimated from Wyoming Department of Employment data. These estimates were then adjusted for self-employment earnings and benefits. Benefits were estimated from national data in the Survey of Current Business.

Total industry output for production was based on the quantities of production data in the Wyoming Department of Revenue's Annual Report, and price forecasts from the Wyoming Consensus Revenue Estimating Group (CREG). Total industry output for byproducts was estimated from information on county gas plant products from Minerals Management Services. Total industry output for oil and gas field services was estimated using output/employment ratios developed from the 1997 Economic Census, U.S. Census Bureau. Because of the large price fluctuations in natural gas and oil prices, the economic impacts of production were estimated based on cost of production rather than total output.

In IMPLAN, the cattle ranching industry is separated into two sectors: 3—Ranch Feed Cattle, and 4—Range Feed Cattle. Sheep production is represented by a single sector: 6—Sheep, Lambs, and Goats. For this analysis, sectors 3 and 4 were combined into a single Cattle Ranching sector. The production coefficients for this aggregated cattle ranching sector were then modified based on a University of Idaho Cow-Calf Budget. It was felt that this budget was a more accurate reflection of production practices in the study area. The sheep sector production coefficients were not modified. Because of price fluctuations, the 1992–2001 average value of production estimates from the Wyoming Agricultural Statistics was used to estimate per animal unit month (AUM) values for both cattle and sheep production. The quantity of production was estimated based on Wyoming Agricultural Statistics data on cattle and sheep inventories by county. Hay production was also adjusted to reflect current production in the study area. Finally, regional purchase coefficients were adjusted to reflect current purchasing patterns in the study area.

Oil and Gas Exploration and Development

The economic impact of oil and gas operations was analyzed in two phases:

- Phase I: Exploration and Development
- Phase II: Production.

Phase 1 considered how many exploratory and development wells would be drilled under each alternative in RMPPA and what percentage of these wells would be completed, including both conventional wells

and coalbed natural gas development. Table A35-1 summarizes the economic assumptions used in analyzing the exploration and development phase associated with each alternative. Oil production was considered a byproduct of gas production.

Table A35-1. Economic Assumptions for Gas Exploration and Development

Impacts/Well	Coalbed Natural Gas			Conventional Wells		
	Shallow	Deep	Dual ^a	Intermediate	Dual ^b	Deep
Drilling Cost	\$100,000	\$250,000	\$144,313	\$500,000	\$625,000	\$3,000,000
Completion Cost	\$100,000	\$250,000	\$144,313	\$500,000	\$625,000	\$3,000,000
Drilling Jobs	1.3	3.2	1.8	6.3	7.9	37.9
Completion Jobs	0.6	1.5	0.9	3.0	3.7	18.0
Drilling Earnings	\$39,599	\$99,220	\$57,346	\$198,886	\$248,496	\$1,191,980
Completion Earning	\$18,664	\$47,329	\$27,305	\$94,211	\$117,876	\$565,269
Completion Rate	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
Completion Rate— Exploratory	-	-	-	90.0%	-	90.0%

^a Dual CBNG wells are two wells drilled from the same pad.

^b Dual intermediate gas wells are two wells drilled from the same pad.

Phase II considered the economic impact of producing additional gas reserves as a result of the exploration and development under Phase I. Table A35-2 summarizes the economic assumptions used to analyze gas and oil production estimated to occur under each alternative.

Table A35-2. Economic Assumptions for Oil and Gas Production

Inputs/Impacts	Type of Wells	
	Conventional	CBNG
Price/MMCF ^a	\$3,250	\$3,250
Price/MMBO ^a	\$20,500,000	\$20,500,000
Labor Earnings	\$197.52	\$197.52
Employment	0.0052	0.0052

^a Prices for natural gas and oil were obtained from the Wyoming State Consensus Revenue Estimating Group, October 2003.

^b The Labor Earnings and Employment entries are the Total Earnings and Employment per MMCF.

The average price of natural gas and oil used for this analysis was obtained from the Wyoming State Government Revenue Forecast for 2004 through 2008. The average price forecast for natural gas for 2004 and beyond was estimated at \$3.25 thousand cubic feet (\$/mcf) and for oil at \$20.50 billion barrels (\$/bbl).

Grazing

Grazing activities were analyzed under each alternative as follows. First, BLM was contacted concerning historical grazing use within the RMPPA. The value of grazing AUMs for cattle and sheep was estimated as summarized in Table A35-3 and Table A35-4.

Table A35-3. Estimated Value of Cattle AUMs

Year	Value of Production (1,000\$s) ^a	Cows that have Calved (1,000 Head) ^a	Value Per Cow	Conversion to AUMs (AUMs/cow) ^b	Value of Production Per AUM Nominal\$	Value of Production Per AUM Real (2001\$)
1998	\$400,637	880	\$455.27	16	\$28.45	\$30.10
1999	\$452,058	830	\$544.65	16	\$34.04	\$35.55
2000	\$490,707	830	\$591.21	16	\$36.95	\$37.80
2001	\$542,823	850	\$638.62	16	\$39.91	\$39.91
2002	\$444,815	820	\$542.46	16	\$33.90	\$33.11
					5-year Average	\$35.29

^a Wyoming Agricultural Statistics

^b J.P. Workman, *Range Economics* (New York: Collier Macmillan, 1986).

Table A35-4. Estimated Value of Sheep AUMs

Year	Value of Production (Sheep and Lambs) (\$1,000) ^a	Value of Wool Production (\$1,000) ^a	Total Value of Production (\$1,000) ^a	Ewes 1 Year and Older (1,000 Head) ^a	Value Per Ewe	Conversion to AUMs (AUMs/Ewe) ^b	Value of Production Per AUM Nominal \$	Value of Production Per AUM Real 2001 \$
1998	\$24,493	\$4,266	\$28,759	430	\$66.88	3.2	\$20.90	\$22.11
1999	\$22,489	\$2,416	\$24,905	385	\$64.69	3.2	\$20.22	\$21.11
2000	\$23,448	\$2,143	\$25,591	365	\$70.11	3.2	\$21.91	\$22.42
2001	\$19,155	\$2,015	\$21,170	340	\$62.26	3.2	\$19.46	\$19.46
2002	\$21,412	\$2,738	\$24,150	320	\$75.47	3.2	\$23.58	\$23.03
							5-year Average	\$21.63

^a Wyoming Agricultural Statistics

^b J.P. Workman, *Range Economics* (New York: Collier Macmillan, 1986).

The economic analysis used the 5-year average value of AUMs, or \$35.29/AUM for cattle and \$21.63 for sheep, in inflation-adjusted dollars. The value and number of AUMs per alternative were then used in combination with the IMPLAN model to estimate economic impacts of grazing under each alternative. The economic assumptions used to analyze grazing impacts are summarized in Table A35-5.

Table A35-5. Economic Assumptions for Grazing

	Cattle Grazing (2001 \$)	Sheep Grazing (2001 \$)
Production Value per AUM	\$35.29	\$21.63
Total Economic Impact per AUM	\$64.36	\$42.36
Earnings per AUM	\$18.77	\$5.83
Jobs per AUM	0.000709	0.000951

Recreation

Recreational impacts were analyzed as follows. The number of recreation visitor days (RVD) was estimated for each alternative, considering several assumptions. These assumptions are summarized in Table A35-6. Once the number of RVDs was estimated by activity, the RVDs were separated into resident and nonresident use and analyzed separately. Residents were considered as any individual living in the four-county study area, whereas nonresidents live outside the four-county region. Residents of the study area associated with big game hunting were determined by evaluating zip codes of hunters that applied for licensees from the Wyoming Game and Fish Department (WGFD) within the relevant hunting areas. Residents and nonresidents participating in off-highway vehicle (OHV) and other dispersed use were based on observations of BLM staff for this area.

The economic impact of recreation in the RMPPA considered activities of nonresidents only. Regional economic impact modeling (Input/Output [I/O] models) evaluates the additional economic activity associated with "new" money brought into an economy, which can occur as goods and services are produced by local firms and exported to entities outside the region (e.g., agricultural products, oil and gas production). In addition new money can come into an economy as visitors come to the area and spend money. I/O models estimate the additional economic activity that occurs with new money expenditures. Therefore, nonresident spending is evaluated when determining the economic impacts of recreation. However, this does not imply that recreational activities are not important to the quality of life of residents in the area.

Total annual recreational expenditures of nonresidents were estimated for each alternative using the estimated RVDs per activity and the average expenditures per day per activity. Table A35-7 summarizes the average expenditures used for each activity. The economic assumptions used to estimate recreational impacts are summarized in Table A35-8.

Table A35-6. Recreation Assumptions

Use Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4—Proposed Plan
	Nonconsumptive			
OHV	OHV use is estimated to increase 1.5% per year during the planning period, based on current trends in OHV use.	OHV use is expected to increase 3% per year. Increases in OHV use are expected as a result of the creation of the Rawlins OHV SRMA. An increase is also expected in the number of roads and vehicle routes open to OHV use because of changes in wildlife management restrictions and increased mineral development.	OHV use is expected to increase only 1% per year. Although the Rawlins OHV SRMA is expected to increase OHV use, restrictions in other SRMAs, as well as other wildlife restrictions, would reduce the number of roads and vehicle routes open to OHV use.	OHV use is estimated to increase 1.5% per year during the planning period, based on current trends in OHV use.
Other Recreational Uses	Nonconsumptive RVDs are estimated to increase 1.5% per year over the study period, based on current trends.	Nonconsumptive RVDs are expected to decline 1.5% over the study period because of a reduction in, or substantial changes to, wildlife and fisheries habitat in the RMPPA.	Nonconsumptive RVDs are expected to increase by 2.5% per year over the study period as a result of increased protection for wildlife and fisheries resources.	Nonconsumptive RVDs are estimated to increase 1.5% per year over the study period, based on current trends.
	Consumptive			
Fishing	Fishing RVDs are expected to increase 2% per year, based on current trends.	Fishing RVDs are expected to stay constant at the 5-year historic average.	Fishing RVDs are expected to increase by 2.5% per year as a result of changes in vegetation management, protection of riparian areas, and protection of wildlife and fish resources.	Fishing RVDs are expected to increase by 2% per year, based on current trends.
Elk	Elk hunting is expected to remain constant at the current 5-year average for the Rawlins RMPPA.	Elk hunting is expected to decline 1% per year during the study period as a result of impacts on wildlife from increased mineral development, changes in vegetation management, and increased OHV use.	Elk hunting is expected to increase as a result of changes in vegetation management, protection of riparian areas, and protection of wildlife habitat, resulting in an increase in RVDs of 0.5% per year.	Elk hunting is expected to remain constant at the current 5-year average for the Rawlins RMPPA.

Use Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4—Proposed Plan
Antelope	Antelope hunting is expected to remain constant at the current 5-year average for the Rawlins RMPPA (or increasing a little).	Antelope hunting is expected to decline 1% per year during the study period as a result of impacts on wildlife from increased mineral development, changes in vegetation management, and increased OHV use.	Antelope hunting opportunities are expected to increase, resulting in an increase in RVDs by 0.5% per year.	Antelope hunting is expected to remain constant at the current 5-year average for the Rawlins RMPPA (or increasing a little).
Mule and White-Tailed Deer	Deer hunting is expected to remain constant at the current 5-year average or decline slightly for the Rawlins RMPPA. Declines would be caused by increased occurrences of chronic wasting disease in the area and loss of sagebrush steppe communities, which hurts winter range availability.	Deer hunting is expected to decline 1% per year during the study period as a result of impacts on wildlife from increased mineral development, changes in vegetation management, and increased OHV use.	Same as Alternative 1	Same as Alternative 1
Water Fowl	Water fowl hunting is expected to remain constant at the current 5-year average for the Rawlins RMPPA.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

Table A35-7. Summary of Visitor Expenditures

Summary of Daily Visitor Expenditures	Per Person Per Day
Nonresident OHV Use	119.13 ^a
Nonresident Hunting	116.31 ^b
Nonresident Other Nonconsumptive Uses	33.27 ^c

^a Hazen and Sawyer, *Economic Contribution of Off-Highway Vehicle Use in Colorado*, Prepared for the Colorado Off-Highway Vehicle Coalition, Denver, CO, July 2001.

^b Morey & Associates, Inc., *Report on the Economic Impact of the Travel Industry in Wyoming—1998*, prepared for the Wyoming Business Council, Division of Tourism, Cheyenne, WY, 1999.

^c U.S. Fish & Wildlife Service, *2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation—Wyoming*, FHW/01-WY, Rev., 2003.

Table A35-8. Economic Assumptions for Recreation

	OHV (2001 \$)	Other Nonconsumptive Uses	Hunting (2001 \$)
Direct Expenditures			
Jobs Per \$1M	27.5	31.9	44.3
Earnings Per \$1M	\$413,864	\$359,448	\$436,798

LITERATURE CITED

Minnesota IMPLAN Group (MIG), 2000. IMPLAN Professional, Version 2.0, User's Guide.

APPENDIX 36—RECLAMATION PLAN

Reclamation of public land will be required for any surface disturbing activity. A reclamation plan appropriate in detail and complexity and tailored to a specific surface disturbing activity will be required and made a condition of approval of any action. This appendix details the elements that need to be considered during predisturbance authorization of any surface disturbance and the postdisturbance steps required to assure timely and proper recovery of the site.

The reclamation plan will provide a framework to develop project-specific and site-specific reclamation actions and guide land management efforts toward a planned future condition for any surface disturbance. Early coordination between Bureau of Land Management (BLM) and project proponents is necessary to produce a comprehensive plan. The reclamation plan will serve as a binding agreement between project proponents and the BLM for the expected reclamation condition of the disturbed lands and must be periodically reviewed and modified as necessary. The reclamation plan will include sufficient monitoring requirements, reports, and components to ensure the reclamation plan is current.

Although the proponent will usually develop the reclamation plan, appropriate BLM involvement in preplanning, data inventory, and approval is essential to develop the optimum reclamation proposal. Most determinations as to what is expected should be made before the reclamation plan is approved and implemented. However, any plan can be modified to adjust to changing conditions or to correct for an oversight. An approved reclamation plan and reporting obligations will be required prior to any surface disturbing activity. A reclamation plan should provide the following:

- A logical sequence of steps for completing the reclamation process
- The specifics of how reclamation standards will be achieved
- An estimate of specific costs of reclamation
- Sufficient information for the development of a basis of inspection and enforcement of reclamation and criteria to be used to evaluate reclamation success and reclamation bond release
- Sufficient information to determine if the reclamation plan is in conformance with the applicable BLM land-use and activity plans, as appropriate. Further guidance for reclamation can be found in the BLM/Forest Service *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development* (Gold Book), fourth edition, 2006, at <http://www.blm.gov/bmp/gold%20book/FinalGoldBook%20-%202006%20Edition.pdf>.

In preparing and reviewing reclamation plans, the BLM and the project proponent must set reasonable, achievable, and measurable reclamation goals that are not inconsistent with the established land-use plans. Achievable goals will ensure reclamation and encourage operators to conduct research on different aspects of reclamation for different environments. These goals should be based on available information and techniques, should offer incentives to both parties, and should, as a result, generate useful information for future use.

The purposes of the reclamation plan are as follows:

- Reclamation plans provide detailed guidelines for the reclamation process and fulfill federal, state, county, and other local agencies requirements. They can be used by regulatory agencies in their oversight roles to ensure that the reclamation measures are implemented, are appropriate for the site, and are environmentally sound.

- Reclamation plans will be used by the project proponent throughout the operational period of the project and subsequent to cessation of surface disturbing activities. In turn, responsible agencies, including the BLM, will use the reclamation plan as a basis to review and evaluate the success of the reclamation program.
- Reclamation plans should provide direction and standards to assist in monitoring and compliance evaluations.

BLM reclamation goals emphasize eventual ecosystem reconstruction that returns the land to a condition approximate to or better than that which existed before it was disturbed, by re-creating the successional pathway that restores the plant cover and species composition of the site to its predisturbance direction and boundaries.

Interim reclamation is an intentional activity to initiate or accelerate the recovery of an ecosystem with respect to its health, integrity, and sustainability, including quickly stabilizing disturbed areas to protect both disturbed and adjacent undisturbed areas from unnecessary degradation.

Interim reclamation measures are used to achieve this short-term goal while setting the stage for final recovery. For example, on a well pad where drilling is completed, interim reclamation would include drying and back-filling reserve pits, initial recontouring and redistribution of saved top soil, a rocked driveway installed, fencing installed as needed, and the area revegetated. Interim reclamation guidelines would be addressed on a case by case basis, as appropriate.

Final reclamation measures are used to achieve the recovery goal. A disturbed area has recovered—and is restored—when it contains sufficient biotic and abiotic resources to continue its development and interactions without further assistance or subsidy. It will demonstrate resilience to normal ranges of environmental stress and disturbance.

Planning efforts that consider the processes necessary for successful reclamation are important. Predisturbance surveys, site stabilization, weed control, and maintenance and health of soils are significant considerations. All forms of revegetation must consider vegetative succession patterns and processes. Annual monitoring and reporting is the best way to track success and implement adaptive management strategies that treat problems.

The ideal starting point for reclamation is to ensure that reclamation planning starts before disturbance and is an integral part of the operational plan. All attempts should be made to develop and implement new ideas and technologies that limit or greatly reduce the amount of land surface disturbance.

Predisturbance surveys provide data that allow for proper planning and timely implementation of planned activities. For instance, predisturbance site surveys give the operator the information to know what plant communities, composition, structure, and successional pathway to restore to and can influence the amount and type of seed that is ordered and how and where the seed is planted and handled. Predisturbance inventories define baseline conditions and should be followed up with annual monitoring.

Among items to be emphasized in achieving these goals are—

- Stabilization of disturbed soils
- Soil stabilization through establishment of a vegetative ground cover on disturbed sites during the first growing season following disturbance

- Restoration of the same native vegetation disturbed or removed or restoration of an alternate vegetative regime in consultation with and approval by the BLM's Rawlins Field Office
- Provide vegetation and/or site characteristics to accommodate previous land uses
- Minimal disturbance of the existing environment and avoidance of riparian areas
- Annual monitoring, detection, and control of invasive and noxious weeds beginning the first season of disturbance
- Monitoring and management of reclamation sites to evaluate weed populations, reclamation success, and to plan and report on the program annually
- Positive efforts to resist the spread of weeds including power washing of machinery and equipment between work sites consistent with the Rawlins Weed Prevention Plan (USDI-BLM, 1999a).

SOIL

Topsoil is the building block of successful reclamation. Soil consists of living organisms that must be properly cared for. Many plants rely on these organisms to facilitate the uptake of nutrients and water, especially in times of stress. To preserve and care for topsoil organisms there are several strategies that can be employed; stockpiled soil can be immediately planted with a mix of native plant species, inoculated after being respread and planted with early successional species, or stored for short periods of time.

Topsoil should be handled separately from subsoil materials. At all construction sites, if topsoil must be stripped, project proponents must provide for sufficient quantities to be respread to a depth of at least 4 to 6 inches over the disturbed areas during reclamation. In areas where deep soils exist (such as floodplains and drainage channel terraces), at least 12 inches of topsoil should be salvaged. Where soils are shallow or where subsoil is stony, as much topsoil should be salvaged as possible. Care should also be taken to avoid mixing productive soil types with less productive soil types where two or more soil types may occur on a single site.

The salvaged soil can either be stockpiled for later use or used immediately over regraded surfaces that are ready for reclamation. The latter option, sometimes called direct or live haul, is preferable over stockpiling since the soil microbes, bacteria, viable seeds, and plants that can take root are at their most abundant, leading to better revegetation. Stockpiling soil for long periods results in the loss or elimination of these beneficial characteristics, especially where soils are stockpiled more than several feet high and biological activity is diminished from lack of oxygen.

Topsoil will be stockpiled separately from subsoil materials to preclude contamination or mixing, and topsoil stockpiles should be signed. When topsoil will be stored for more than one year, stockpiles should not exceed two feet in depth. They should be seeded with a prescribed seed mixture and covered with mulch to reduce erosion and discourage weed invasion. Runoff should be diverted around topsoil stockpiles to minimize erosion of topsoil materials. In most cases, disturbances will be reclaimed within 1 year. Therefore, it is unlikely that topsoil will be required to be stockpiled for more than 1 year. Salvaged topsoil from roads and project sites will be respread over cut-and-fill surfaces not actively used during the project life.

In some cases, there may be insufficient quantities of topsoil available for salvage to adequately cover the surfaces upon final reclamation and revegetation. There then is the need to find suitable replacement or

substitute growth media; this may include using subsoils or strata deeper within the overburden with suitable characteristics for plant growth. Deficiencies in the replacement or substitute soil could be made up by using soil amendments. See <http://www.nps.gov/plants/restore/pubs/intronatplant/planning.htm> for a good overview on the restoration process and soil needs.

SITE PREPARATION

It is important to consider diversity in seedbed preparation to account for various seed sizes and establishment strategies of different species. Consideration should be given for seed-safe sites, water infiltration and collection, shade, and frost protection.

RECONTOURING

Trees, shrubs, and ground cover adjacent to disturbance areas but not cleared from rights-of-way (ROW) would require protection from construction damage. Recontouring to preconstruction condition as well as restoration of normal surface drainage would be required.

ROAD RECLAMATION GUIDELINES

Road reclamation guidelines are as follows:

- Determine the desired level of obliteration and reclamation. Determine if there are alternative short- or long-term uses for roads.
- Determine short- and long-term reclamation objectives and goals. Identify the monitoring methods to determine reclamation success or failure and possible mitigation.
- Reclaim road; effort may include ripping and scarifying the surface, removing culverts and other flow structures, recontouring cut and fill slopes to provide for complete removal of the road, and total recontouring to the original topographic profile.
- Reclaim vegetation to standards outlined in the section on “criteria for reclamation.”
- Establish mitigation measures to remedy problems identified by monitoring.

WEEDS

One of the BLM’s highest priorities is to promote ecosystem health, and one of the larger obstacles to achieving this goal is the rapid expansion of weeds across public lands. Invasive plants can dominate sites and often cause long-term changes to native plant communities. If not eradicated or controlled, noxious weeds will jeopardize the success of reclamation. Invasive weeds can slow reclamation success or halt it altogether. ROW, mineral lease, mining claim, and permit holders are required to monitor and control noxious and invasive weeds on public land as stipulated within their permits and authorizations. Some recommended best management practices (BMP) for weed control are located in Appendix 31, Rawlins Field Office Noxious Weed Prevention Plan.

SEED

On all areas to be reclaimed, seed mixtures are required to be weed-free and site-specific, composed of the same native species as were disturbed, or early successional species consisting of pioneer species, including seasonal or annual species (that may only be evident at certain times of the year), that will lead to a similar climax community as that disturbed. Site preparation and species choices must ensure soil stability.

A predisturbance species composition list must be developed for each site to ensure proper community composition, function, and structure. This will ensure that the type of vegetative community replaced is compatible with climate and soil types and should make it easier for the project proponent to successfully restore and stabilize specific sites.

Livestock palatability and wildlife habitat needs must be given consideration in seed mix formulation during reclamation within areas of important wildlife habitat (crucial winter range, sage-grouse nesting habitat, etc.); provision shall be made for the replacement of native browse and forb species. BLM guidance for native seed use is the BLM Manual 1745 (USDI-BLM, 1992), and Executive Order (E.O.) 13112 (Invasive Species, 64 Code of Federal Regulations [CFR.] 6183).

It is helpful to become familiar with the following terms when ordering seed to assist in making informed decisions.

Certified Seed (Blue Tag)

This certification only applies to seed produced through cultivation, not seed collected in the wild. The seed certification system promotes the production and purchase of seed of known genetic identity. Only cultivated, named varieties can be certified. A certification agency inspects field conditions and regulates how the seed is produced, harvested, and cleaned. The seed is subject to a variety of laboratory tests. This certification process guarantees the seed has the same genetic potential to perform in the field as the original seed did when it was released for production.

Source Identified Seed (Yellow Tag)

The Association of Official Seed Certifying Agencies (AOSCA) has an approved seed certification class for native seed collection called the "Source Identified Class." The tag confirms to the purchaser that the location of seed harvest was verified by the certifying agency.

Pure Live Seed (PLS)

Pure live seed is a measure describing the percentage of a quantity of seed that will germinate. It is a way to standardize quality so the purchaser can compare the quality and value of different lots of seed. One lot may be cheaper but may not have as high a PLS as another lot, and therefore may not be a better deal financially because fewer seeds would actually germinate.

PLS = % purity * %germination rate/100

Example: 90% purity * 50% germination rate/100 = 45% PLS

Seed Testing and Labeling

Seed companies should include a clear label on each bag of seed that shows the results of purity and germination tests and the scientific name of the species. The Association of Official Seed Analysts oversees these tests. Purity of the seed is the percentage of the labeled species by weight. The percentages of other crop, weed, inert material, and the percentage of dormant or hard seed should also be included. The label should also show the percentage of the seed count that will germinate

Site Adapted Custom Seed Collection

Some seed companies also may offer collection services where they will harvest seed from sites the customer specifies. This is a preferred method for many that want to ensure that their seed is from local sources.

Seed Suppliers

Many of the considerations for choosing plant material suppliers also apply to choosing seed suppliers. Seed suppliers should operate in the same geographic ecoregion as the restoration site, as that supplier is most likely to have native seed suitable for that area. Companies specialize in native seed collection, processing, and growing and can have a wealth of knowledge about native plants and seeds. Do not rely on a single supplier for all seed needs.

Standard Seed Mixtures—Rawlins Field Office

Care and planning must be taken to choose mixes and amounts that will benefit under site-specific conditions. Planning and thought must also go into selecting successful planting and site-preparation techniques. All sites must be planted with a diverse mix of grasses, forbs, and shrubs to be considered successful. The project proponent is ultimately responsible for successful restoration of disturbed sites. Alternate seed mixes can be submitted by the project proponent to the BLM for review and approval prior to use. The final goal is to restore disturbed sites so that they closely resemble predisturbance native plant communities. Some standard seed mixes are available for the Rawlins Field Office and contain only native species. If the use of a non-native species is desired, documentation of the need is required by BLM policy. Non-native species may be considered for erosion and weed control. Seed mixtures consisting of sterile annual cover crops, such as tricale hybrid, can be used. The use of a non-sterile plant species such as wheat as a cover crop is not recommended because of its ability to reseed itself. Follow-up seeding or corrective erosion control measures will be required on areas of surface disturbance that fail to meet reclamation success standards within a reasonable time.

MULCH

Use of mulch during reclamation may enhance chances for successful vegetation reestablishment. Mulches can help control wind and water erosion, retain and collect seed, increase and prolong soil water capacity, and add organic compounds to the soil. Mulches are best applied after seeding to ensure proper seed contact with soil. Mulch may include hay, small-grain straw, wood fiber, live mulch, cotton, jute, or synthetic netting. Straw mulch should contain fibers long enough to facilitate crimping and provide the

greatest cover. Take care that mulch is not more than 1 inch deep; if too deep a layer is applied it can retard vegetation establishment.

Any mulch used must be certified free from mold, fungi, or noxious or invasive weed seeds.

LIVE PLANTINGS

Live plants can be planted on disturbed sites and, with proper site preparation, can greatly enhance restoration efforts and shorten time frames. Operators buy bare root and container stock directly from vendors or can contract seed collection and growth from local growers. Another strategy is to use an excavator to collect clumps of plants from the site and plant them either on reserved topsoil piles and/or on restoration sites during recontouring. These clumps can provide native seed and soil flora as well as collect precipitation and provide shade for newly emerging plants.

Seeding and Planting Methods

There are many types and configurations of rangeland seeders, interseeders, and transplanters. Be sure to use the right tool for the job. The equipment should be set up to segregate seed by size and planting depth. The contractor should know when, where, and under what conditions to plant the appropriate species. Many forbs, shrubs, and some grasses do not compete well as young plants and should be planted with compatible species. Less aggressive, slower growing species should be planted separately from faster growing more aggressive species. Some species require companion species; there are many variables, so care must be taken in seed selection and planting technique.

Most conventional grain drills are inadequate for rangeland seeding. Their seed boxes are generally not individually suspended; depth regulators are usually inadequate for native species and generally plant too deep. Adequate equipment and knowledge of site-specific reclamation practices is paramount to the success of seeding objectives. Look for contractors using proven rangeland equipment and methods. For example, they should have a rangeland drill, Truax drill, land imprinter, Amazon no-till drill, broadcast seeder, Brillion-seeder, seeder-scalper, interseeders, surface seeder, hydro-seeder, scarifier, dozer, or other appropriate equipment.

Depending on site specifics such as soil types and soil moisture, there are a number of ways to properly prepare seedbeds. It is best to prepare the seedbed early in the fall, then plant in late fall or early winter. However, when proper conditions exist, planting can occur through the winter into early spring. Planting at other times of the year will have higher chances for failure. Care should be taken not to work soils that are too wet, as compaction and soil crusting can occur.

Seedbed preparation and seeding often occur simultaneously. Therefore, it is critical to choose the proper methods and timing. Seedbeds left in a rough surface condition, then broadcast seeded followed by light churning or harrowing may be a good strategy for seed mixes. Deep furrow drilling should not be used in dry soils or in loose soils, as it tends to slough and leave seeds at uneven depths and often too deep for germination. Deep furrow drilling in tighter soils may be appropriate, as it can reduce soil moisture loss and shade new seedlings. Cultipacker seeders, punch drills, pitting, and some compact drills may also be a good strategy for loose soil types, particularly if they are able to segregate seed and plant at varying depths.

Planting container or bare-root stock requires specific strategies that have been proven successful. Some methods that can be used include random hand-planting, trenching, inter-seeding, and deep-furrow planting.

It is essential to consider several options for seedbed preparation to account for soil types, pH, structure, various seed size, planting depths, competition, and the establishment of strategies for different species. Consideration should be given for seed-safe sites, water infiltration and collection, shade, and frost protection.

Planning and Monitoring

For each discrete site where ground-disturbing activities are planned, a site-specific reclamation plan shall be prepared, submitted, and approved by the BLM before the project proponent disturbs the environment. Guidance and requirements for this plan can be found in program-specific direction (USDI-BLM, 1983b). A projectwide reclamation plan may be considered if it addresses the individual site disturbances specifically.

With the exception of active work areas, disturbed areas anticipated to be left bare and exposed will be stabilized with at least 50 percent cover of mulch to prevent soil erosion. Variation of the cover percentage and the use of other stabilizing materials can be proposed and used with BLM approval consistent with the relevant project-specific reclamation plan. For areas anticipated for further disturbance in the near future, use of the seed mixtures detailed in Temporary Seed Mixtures may be acceptable in the interim.

First Growing Season

Reclamation actions will be implemented before the first growing season following disturbance with the goal of returning the land to a condition approximate to or more productive than that which existed before disturbance or to a stable and productive condition compatible with that described in the land use plan. Consistent with the reclamation plan, the operator will ensure the following during the first growing season.

Prior to the beginning of the growing season—

- Stabilize disturbed site soils until they are revegetated with no obstacles to germination and growth of seed and
- Properly prepare the site by—
 - Recontouring for permanent reclamation
 - Completing soil preparation activities, such as ripping, straw crimping/seedbed preparation for planting including drilling and broadcast methods
 - Planting the approved seedling/seed mixtures using site-specific methods for successful revegetation using regionally, and/or site-adapted genotypes
 - Ensuring that weed treatments are compatible with seed mixtures.

During the first growing season—

- Monitor germination and growth of plants in the area being reclaimed
- Detect and control weeds in all areas—not just reclaimed areas
- Use adaptive management to correct establishment and growth problems
- Put up temporary fencing to avoid adverse effects to reclamation
- Build snow fencing, if requested, to increase effective precipitation and regenerate vegetation.

Following each growing season—

- Review and complete a site-specific vegetation monitoring report for areas being reclaimed (Table A36-1)
- Prepare a written, site-specific prescription for actions to be implemented, including—
 - Reseeding of areas not attaining reclamation success
 - Soil stabilization
 - Weed control needs
 - Mulching/fertilization or other cultural practices prescribed for the following season.

If the treatment area is found, through site-specific monitoring data, to be successfully reclaimed, monitoring to confirm reclamation success will continue for at least five seasons. The site will also comply with additional management needs, including weed infestations/control.

If the reclamation area is not successfully reclaimed or otherwise requires further management activities to establish vegetation, the actions prescribed will be implemented as planned and further monitoring will occur as detailed beginning with Item 1 above.

PROJECT PROPONENT RECLAMATION MONITORING REPORTS

The project proponent will provide the BLM with an annual report before December 1 for all sites disturbed. The report will include—

- Copies of the completed individual site review forms or a BLM-approved electronic report
- A summary of monitoring data and results, including—
 - Individual site reclamation monitoring reporting data (Table A36-1)
 - Identification of sites successfully reclaimed by reclamation years (starting with the first growing season)
 - Identification of sites needing additional work or more reclamation activities by reclamation year
 - Sites proposed for the end of monitoring (i.e., sites that were successfully reclaimed)
- BLM useable shape file(s) or Geographic Information System (GIS) layer(s) that details location, name, type, and extent of—
 - New disturbances
 - Unreclaimed disturbance
 - New reclamation
 - Failed or unsuccessful reclamation
 - Locations of noxious/invasive weed infestation
 - Further vegetation treatments planned (e.g., mulching, matting, and weed control).

On these shape files or GIS layers, *location* shall be given as the legal location and geo-referenced location of the site; *name*, as appears on the BLM Application for Permit to Drill (APD), lease, or other BLM file name for the site; and *extent*, as the amount of area and location of the item.

CRITERIA FOR RECLAMATION SUCCESS

Criteria based on predisturbance surveys or surveys of adjacent undisturbed natural ground cover and species composition¹ or—

- 80 percent of predisturbance ground cover
- 90 percent dominate species
- No noxious weeds
- Erosion features equal to or less than surrounding area.

Monitoring results must be from a standardized cover/species protocol finalized by BLM.

Table A36-1. Reclamation Monitoring Reporting Data

General	WYW# (Oil and Gas Lease or ROW)
	Project Name
	Project Type (Well, Access Road, Pipeline, Facility, etc.)
	Qtr/Qtr Sec, T, R, County, State
Disturbance	Disturbance Dates
	Start-End
Reclamation	Reclamation Type (Interim/Final)
	Earthwork Contractor Name
	Earthwork & Topsoil Completion Date
	Soil Preparation Ripping Depth
	Area (Acres or Square Feet)
Seeding	Seeding Contractor Name
	Seeding Date
	Seedbed Preparation Methods (Disc, Harrow, Depths)
	Seeding Method (Drill, Broadcast, Depths)
	Copy of Seed Tag (Species %, Purity %, Germination %)
	Actual Seeding Rate Lbs/Acre
	Area Seeded (Acres or Square Feet)
Other	Soil Amendments Used (Describe)
	Mulching/Erosion Netting/Tackifier
	Fenced Location
	Snow Fencing
Weeds	Type(s) of Weed Treated
	Weed Contractor Name

¹ The vegetation will consist of species included in the seed mix and/or occurring in the surrounding natural vegetation or as deemed desirable by BLM in review and approval of the reclamation plan. No single species will account for more than 30 percent total vegetative composition unless it is evident at higher levels in the adjacent landscape. Vegetation canopy cover production and species diversity shall approximate the surrounding undisturbed area.

	Contractor License #
	Weed Treatment Date
	Weed Treatment Type (Chemical, Mechanical)
	Chemicals Used and Rates Applied
	Area Treated (Acres or Square Feet) (GIS Extent and Location)
Inspection	Inspector's Name, Company, ID
	Inspection Date
	Time After Seeding
	Seedlings/Square Feet Growing
	% and Extent of Bare Soil
	% Ground Cover (Describe)
	% Desirable Species (Describe)
	% Noxious/Invasive Weeds (Describe)
	Erosion Features Present? (Describe)
	Evidence of Livestock Grazing (Describe)
Reclamation Successful (Yes/No)	
Reporting	Completed Spreadsheet or Database
	GIS Layer With Attribute Table With Site Data as Detailed
	Detail Disturbance Extent and Location
Monitoring	Permanent Reference Point
	Reference Photos
	Close-Up Photos
Future Management Prescription	Reseeding
	Weed Control Needed
	Erosion control Needed
	Grazing/Predation Issues
	Other Cultural or Mechanical Needs

APPENDIX 37—ADOBE TOWN DISPERSED RECREATION USE AREA

WESTERN EXTENSIVE RECREATION MANAGEMENT AREA

Adobe Town Dispersed Recreation Use Area

Within the Western Extensive Recreation Management Area (ERMA) lies an area proposed as the Adobe Town Dispersed Recreation Management Area. The Adobe Town Dispersed Recreation Management Area contains approximately 247,000 acres. The Dispersed Recreation Management Area consists of the Rawlins Field Office (RFO) portion of the Adobe Town Wilderness Study Area (WSA) and adjacent lands that contain opportunities for dispersed recreation use.

A portion of the Dispersed Recreation Use Area is within the Adobe Town WSA (approximately 34,200 acres). Identification as a Dispersed Recreation Management Area is consistent with management under the Interim Management Policy (IMP) and in no way constrains Congress in designating the area as Wilderness or releasing it for other uses. Uses that are incompatible with the IMP would not be allowed in the WSA.

A portion of the Dispersed Recreation Management Area has been leased for oil and gas development (approximately 176,000 acres). Some of these lands contain roads, wells, pipelines, and compressor stations used for energy production as well as range improvements in support of livestock grazing. Identification as a Dispersed Recreation Management Area in no way alters these leases, improvements, permits, or other valid existing rights. Identification of the area as a Dispersed Recreation Management Area would not limit mineral leasing or development nor would it sunset existing leases.

Actions within the Dispersed Recreation Management Area would conform to the Recreation Opportunity Spectrum (ROS) descriptions, as is reasonable given that the majority of the area has been leased. Leased areas that are developed would experience, in some cases, severe deviation from the desired ROS over an extended period of time. After cessation of oil and gas development, these areas should be reclaimed to the setting opportunity described in Table A37-1. This area would be a priority for reclamation.

Table A37-1. Adobe Town Dispersed Recreation Management Area ROS and Associated Management Goals

Opportunity Class	Activity Opportunity	Setting Opportunity	Experience Opportunity
<p>Primitive (Adobe Town WSA component of Dispersed Recreation Use Area) (Map 2-58)</p>	<p>Backpacking, hiking, equestrian use, enjoying scenery or natural features, nature study, photography, and hunting (big game, small game, predators, game birds)</p>	<p>Area is characterized by essentially unmodified natural environment of fairly large size. Concentration of users is very low, and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Only facilities essential for resource protection are used. No facilities for comfort or convenience of the user are provided. Spacing of groups is informal and dispersed to minimize contacts between groups. Motorized use within the area is not permitted.</p>	<p>Opportunity for isolation from the sights and sounds of man, to feel a part of the natural environment, to have a high degree of challenge and risk, and to use outdoor skills</p>
<p>Adobe Town Middle Country (Map 2-58)</p>	<p>Same as above, plus the following: camping, mountain bike and off-highway vehicle (OHV) use on designated routes (4-wheel drive, OHV, motorcycle)</p>	<p>Area is characterized by a predominately unmodified natural environment of moderate to large size. Concentration of visitors is low, but there is often evidence of other area users. Onsite controls and restrictions may be present but are subtle. Facilities are provided for the protection of resource values and the safety of users only. Spacing of groups may be formalized to disperse use and limit contacts between groups. Motorized use is permitted.</p>	<p>Some opportunity for isolation from the sights and sounds of man, but not as important as for primitive opportunities. Opportunity to have high degree of interaction with the natural environment, to have moderate challenge and risk, and to use outdoor skills. Explicit opportunities to use motorized and mechanized equipment while in the area</p>
<p>Adobe Town Front Country (Map 2-58)</p>	<p>Same as above, plus picnicking, 4-wheel drive touring, interpretive use, and car and tent camping. Front Country uses limited to primary access routes within the area</p>	<p>Area is characterized by a generally natural environment with moderate evidence of the sights and sounds of man. Resource modification and utilization practices are evident but harmonize with the natural environment. Concentration of users is low to moderate with facilities sometimes provided for group activity.</p>	<p>About equal opportunities for affiliation with other public land users and for isolation from sights and sounds of man. Opportunity to have a high degree of interaction with the natural environment. Challenge and risk opportunities are not very important except in specific challenging activities. Practice of outdoor skills may be important. Opportunities for both motorized and nonmotorized recreation are present</p>

The Adobe Town Dispersed Recreation Management Area would be managed for primitive, middle, and front country recreation desired future use (Map 2-59) in addition to other multiple uses. The area would

be managed for dispersed recreation uses that do not require recreational developments or facilities. Future emphasis would be placed on maintaining an undeveloped recreation setting.

- **Recreation Management:** The area would see no recreation development. Roads and vehicle routes would be designated according to the transportation plan. These designations would be consistent with the desired ROS class and the IMP. Roads and vehicle routes would be signed in accordance with the transportation plan.
- **Recreation Marketing:** Minimal promotion of the area would occur. Information would be limited to allowable uses in the area, resources within the area, and basic safety information.
- **Recreation Monitoring:** Traffic counters would be installed at major access points into the area. Monitoring of the WSA component of the area would occur according to the IMP. Periodic monitoring through field observations would occur to determine types and frequency of use.
- **Recreation Administration:** Special Recreation Permits (SRP) would be issued for use of the area if the proposed use is consistent with the ROS class. Use restrictions of the area are dictated by the IMP, the transportation plan, and standard use requirements as identified in the Code of Federal Regulations (CFR).
- **Dispersed Recreation:** Opportunities would be pursued to provide for dispersed recreation by keeping the number of roads, other construction, or other surface disturbing activities (such as well pads and pipelines) to a minimum while recognizing the potential for oil and gas development in the area. Transportation planning would include consideration of proper road location, construction, reconstruction, design, and reclamation. New road construction would be reviewed on a case-by-case basis for conformance with area and transportation plan objectives. Reclamation and restoration of the area would be accomplished and reclamation plans for disturbed areas would be prepared to restore lost habitat and vegetation cover to the setting opportunity described in the above table.
- **Area Management:** The area would be managed consistent with designated visual resource management (VRM) classifications to protect, maintain, and enhance the visual resource values. All surface disturbing actions, regardless of the VRM class, would be mitigated to reduce visual impacts. This would be achieved by designing and locating the disturbances to minimize contrast with the surrounding landscape.

APPENDIX 38—RESPONSE TO PUBLIC COMMENTS

This appendix includes public comments and Bureau of Land Management (BLM) responses on the draft Environmental Impact Statement (DEIS) for the Rawlins Resource Management Plan (RMP). BLM provided the public with 90 days from the date of publication of the Notice of Availability (NOA) for the Rawlins RMP/DEIS to review and submit comments. The NOA was published in the *Federal Register* on December 17, 2004. The 90-day public comment period officially ended on March 18, 2005. Any letters received after the closing date were accepted and also addressed during preparation of the Rawlins RMP Final Environmental Impact Statement (FEIS).

A total of 63,233 letters were received: 59,308 were sent by e-mail, 43 were submitted on the BLM project website, and 3,882 were submitted in hard copy or sent by mail. Of the 63,233 letters received, 62,256 of them were identified as being form letters, while 977 were considered unique letters. Form letters are described as letters containing identical text submitted by more than five individuals.

The BLM also provided the public with 60 days from the date of publication of a supplemental NOA to review and submit comments specific to Areas of Critical Environmental Concern (ACEC). The NOA was published in the *Federal Register* on June 5, 2007. The 60-day public comment period ended on August 4, 2007. A total of 5 letters were received. Two of the letters were not substantive to the intent of the additional comment period. One letter only restated earlier comments submitted on the RMP DEIS. The two remaining letters contained substantive comments as well as some comments that were outside the scope of the additional comment period. In some cases, the BLM has chosen to respond to specific non-substantive comments to clarify for the reader the rationale behind management actions in the Proposed Plan.

In response to ACEC-specific comments, the BLM has included the relevance and importance forms for those areas that met both relevance and importance criteria in Appendix 22 in the RMP FEIS. All relevance and importance forms continue to be listed on the Rawlins RMP website. Comments which suggested that threats to the proposed ACECs and impacts to various resources all be included in the *Federal Register* notice were not substantive to the development of the RMP FEIS. This information is presented in Chapter 2 and Chapter 4 of the RMP FEIS.

According to the National Environmental Policy Act (NEPA), BLM is required to identify and formally respond to all substantive public comments. On the basis of the Council on Environmental Quality's (CEQ) regulations, a substantive comment does one or more of the following:

- Questions, with a reasonable basis, the accuracy of the information in the environmental impact statement
- Questions, with a reasonable basis, the adequacy of environmental analysis as presented
- Presents reasonable alternatives other than those presented in the DEIS that meet the purpose and need of the proposed action and addresses significant issues
- Causes changes or revisions in the proposal.

Nonsubstantive comments simply state a position in favor of, or against, an alternative; merely agree or disagree with BLM policy; or otherwise express an unsupported personal preference or opinion.

BLM is required to respond only to substantive comments to fully inform the public of concerns raised. For this RMP/FEIS comment response appendix, BLM has provided responses to all substantive public concerns identified during comment analysis. In addition, BLM has provided example comments considered nonsubstantive as well as comments considered outside the scope of the plan. Responses to concerns considered nonsubstantive thank the commentor for participation in the Rawlins RMP process, and response to comments considered outside the scope of the plan simply state that the comment is outside the scope of the plan and contain no further explanation. Responses to substantive comments are more extensive, complete, and often offer an explanation of why a comment may or may not have resulted in a change to the RMP FEIS. Public concerns that identified editorial or other document errors in the RMP DEIS are not included in this appendix; however, all of these comments have been addressed, and, when appropriate, were used during preparation of the RMP FEIS.

BLM read all public response letters in their entirety and identified comments that related to a particular concern or resource consideration or that proposed management actions. Every effort was made to keep each comment within a letter as a standalone comment. BLM looked not only for each action or change requested by the public, but also for any supporting information to capture the comment in its entirety. In doing so, paragraphs within a response letter may have been divided into several comments because of multiple comments being presented, or alternatively, sections of a letter may have been combined to form one coherent statement.

Once a comment was identified, BLM assigned each to a category associated with the overall premise of the comment. A coding structure served as a tool to sort comments into logical groups by topics. In this case, the coding structure was organized to mirror the sections of the RMP DEIS; some additional categories were added that included additional classification of comments.

A database was used to organize and compile the large number of comments received on the RMP DEIS. Comments that were received via web or e-mail were automatically entered in the database. The coding of these letters was also done from the database. Comments identified in hard copy letters and from public hearing transcripts were entered verbatim into the project database. The names of the commentors, their substantive comments, and responses to those comments have been transferred from the database into a spreadsheet, which is posted on the Rawlins RMP project website at <http://www.blm.gov/rmp/wy/rawlins/documents.html>. The comment letters in their entirety can be viewed by the public at the Rawlins BLM Field Office.

The content analysis process also involved identifying all form letters. The initial course of action in this step was conducted using the database to filter all web-based and e-mail comments to identify all letters containing identical text. Once a form letter was identified, it was given an identification number, copied, and coded. If a hard copy letter matched a form letter, it was given the same identification number. If a form letter included any original comments, the comments were treated as a unique comment, coded, and entered into the database.

It is important to note that during the process of identifying concerns, all comments were treated equally. The comments were not weighted by organizational affiliation or status of respondents, and the number of duplicate comments did not add more bias to one comment than another. The process was not one of counting votes, and no effort was made to tabulate the exact number of people for, or against, any given aspect of the RMP DEIS. Rather, emphasis was placed on the content of a comment.

RESPONSE TO COMMENTS

BLM received multiple comment letters on the RMP/DEIS that shared similar issues and content. For these comments, more general responses were written to address the similar issues and content represented. In the case of identical or similar comments, each response is preceded by the text of two or three example comments to represent the full range of an issue. These generic comments and associated response are located at the beginning of the applicable resource section. In the case of unique comments, each response is preceded by the submitted comment.

As previously stated, the comments are organized according to the outline of the RMP DEIS/FEIS and in no way indicate the significance of any statement. BLM's response to the public concern follows each public concern.

Air Quality

Comment: The oil & gas and coal industry has already caused significant degradation of air quality in the Class I air sheds of Wyoming. This area deserves better oversight, monitoring, and evaluation by regulating development that contributes to increased acid rain and decreased visibility in the Class I airsheds of the mountains and wilderness areas.

Comment: The balance of the Climate Section discusses air quality but it appears many of the measurements are extrapolated from other areas of Wyoming (i.e., Table 3-1, page 3-3). Out of six pollutants measured, only two were collected in the RMPPA at Cheyenne. The other four are from the Green River and LaBarge areas; in the case of carbon dioxide, the data was collected in the late 1970s. Questions arise as to the relevancy of such data when such large distances are involved, the increased number of pollution point sources, and the changing weather patterns evident during the past 25-years.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: Page 2-5, 2.3.1 Air Quality. What is the scope of BLM's authority relative to "minimizing any emissions that may add to atmospheric deposition, cause violations of air quality standards or degrade visibility."? Recommendation: This sentence should be struck. The opening sentence already stated that the State of Wyoming regulates air emissions.

Comment: ES-4 Air Quality. The only "authority" that BLM has in relation to air quality is in dust control to prevent erosion and limit dust problems to livestock grazing and wildlife. Air Quality is a Wyoming Department of Environmental Quality jurisdictional issue. EPA would provide an oversight to WDEQ. Recommendation: This section needs to be prefaced with the fact the WDEQ/Air Quality Division has jurisdiction over air quality issues. All emissions are permitted with WDEQ. EPA has oversight over WDEQ.

Response: The Wyoming Department of Environmental Quality (WDEQ) has the responsibility and authority to enforce air quality regulations. BLM recognizes its responsibility and authority for air quality and will continue to support air quality monitoring and analysis and will continue to comply with all air quality laws, rules, and regulations.

Comment: The DRMP/EIS Should Have Included an Evaluation of Mitigation Measures. The DRMP/EIS should have included an evaluation of mitigation measures, subsequent to conducting the proper air quality analyses discussed above. There are numerous mitigation measures that could be considered for the air pollution sources associated with oil and gas development, such as the requirement of meeting state-of-the-art emissions controls at compressor and other gas-fired engines, less dense spacing of wells, no development in certain areas where topography or proximity to a Class I area could result in adverse impacts, etc., yet the DRMP/EIS did not analyze any mitigation measures.

Comment: WOC objects to the approval of the proposed RMP amendments because BLM has failed to perform the duties imposed upon it by the Federal Land Policy Management Act (FLMPA) and the National Environmental Policy Act (NEPA). It is arbitrary and capricious and otherwise inconsistent with law for BLM to approve activities that are expected to result in a large increase in emissions when current levels of emissions have been found to be causing adverse impacts on air quality related values or are expected to significantly impact air quality and air quality related values in Class I areas without identifying mitigation measures adequate to avoid or minimize these impacts as required by NEPA, and without adopting as part of the RMP measures sufficient to "provide for compliance" with standards and requirements of the clean Air Act as required by FLMPA.

Response: BLM will continue to require proponents to demonstrate that potential impacts to air quality from a proposed project are below applicable significance criteria in the EIS for that project.

Comment: BLM needs to analyze an alternative that would maintain air quality at current levels. In the comparison of Total Emissions, all alternatives predict a steady increase in air pollution from 2003 to 2023. There is no alternative that would hold airborne pollutants to the current level being experienced as of 2003.

Comment: The BLM's disregard for the adverse air quality effects is at odds with the policy of NEPA expressed at 40 C.F.R. § 1500.2(f), which provides that Federal agencies "shall to the fullest extent possible use all practical means...[to] avoid or minimize any possible adverse effects of their actions upon the quality of the human environment." The BLM's proposed action also conflicts with the Federal Land Policy and Management Act at 43 U.S.C. § 1712(c)(8), which requires land use plans to "provide for compliance with applicable pollution control laws," as well as the BLM's own planning criteria that actions must comply with Federal laws and regulations. BLM cannot implement its duty to provide for compliance with the Clean Air Act standards if it fails to determine whether such standards will be violated, and then fails to establish limits on total emissions or development that may be necessary to "provide for compliance" with standards that may be violated.

Response: The RMP estimates the emissions that might occur in the future if no air quality mitigation is applied and no technological advances occur. BLM would require mitigation of potential air quality impacts from a proposed project in the EIS for that project.

Comment: Keep all clean air rules in place to prevent all health problems brought on by polluted air.

Response: BLM includes air quality monitoring data located within the potentially affected environment, as required by NEPA.

Comment: pp. 3-4; "3.2.6.3 Great care is needed in comparing the CASTNet HNO₃ results to the typical values cited in the Seinfeld 1986 reference. The CASTNet HNO₃ samples represent a weekly sample but it is not known what is the sampling time of the of the Seinfeld reference. If the sampling time is anything other than 1 week, then the results are not directly comparable to the CASTNet samples. Further, it is not known if the sampling and analytical methodologies used are comparable between the Seinfeld reference and the CASTNet samples: Also, it is not known how many locations represent the typical HNO₃ concentrations reported by Seinfeld. What can be concluded by this comparison is that the Wyoming data are not significantly dissimilar to the "typical" rural concentrations reported by Seinfeld. What may be a more meaningful comparison is to compare the CASTNet samples for HNO₃ to other rural CASTNet sampling sites.

Comment: - pp 3-4; 3.2.6.3 The NO₃CASTNet reported concentrations were compared to "typical rural concentrations from a 1973 Stern reference. In this case, given the age of the Stern reference, it doubtful that these concentrations are directly comparable to the CASTNet samples in sampling methodology, analytical approach, and sampling time. Again, the conclusion that can be drawn is that the concentrations are not significantly dissimilar to other reported rural concentrations. A more meaningful comparison would be to compare the CASTNet samples for NO₃ to other rural CASTNet sampling sites.

Response: Thank you for your helpful suggestion. BLM will include national maps of CASTNet data to show the distribution of nitrate concentrations throughout the United States.

Comment: pp 3-4, 3.2.6.3 In order to compare the CASTNet data and WARMS sampling results, it would be desirable to report concentration units in the same unit of measure. It would also be useful to

provide information on what sampling and analytical protocols were used for each sampling method (e.g., IMPROVE vs. CASTNet).

Response: Description of Clean Air Status and Trends Network (CASTNet) sampling methodology and analytical protocols can be found at www.epa.gov/castnet/data.html.

Comment: The estimates in Tables A4-5, A4-10 and 4-1 and Sections 4.2.2-5 overestimate potential emissions. We strongly recommend that BLM revise its emission estimates to incorporate the corrected assumptions indicated below.

Comment: The Estimate of Oil and Gas Sources in the Regional Inventory Underestimated Emissions from Such Sources To estimate emissions from natural gas and oil wells, data were obtained from the state oil and gas permitting agencies, and then emissions were estimated based on certain assumed emission rates from each well. However, these emission rates appear to underestimate the emissions from each well, as discussed above. For NO_x, an emission rate of 0.045 tpy per gas well was assumed. PM-10, PM-2.5, and SO₂ were assumed to be negligible. Further, no evaluation of VOC emissions was provided for these wells.

Response: BLM agrees to have this comment reviewed by the air quality stakeholder group, cooperators, and Inter-Agency Team and will make any revisions as deemed necessary. BLM emissions estimates for the RMP Planned Area (RMPPA) are available on CD by request.

Comment: The air quality data used to describe the affected environment in Chapter 3 is out of date. Annual wet deposition data from NADP is available through 2003. Please update the summary and associated graphs, (Page 3-7, Section 3.2.6.10, 1st Paragraph; Page 3-8, Section 3.2.6.12, 1st Paragraph; Page F-12, Figure 3-22; Page F-13, Figures 3-23 & 3-24; Page F-15, Figures 3-27 & 3-28).

Comment: The air quality data used to describe the affected environment in Chapter 3 should be limited to data collected within the RMP project area. The only time data should be used from outside the project area is when comparable data was not collected within the RMP project area (e.g., Rocky Mountain National Park visibility data was used because there was not an adequate amount of visibility data from Brooklyn Lake). Please update the summary and associated graphs to remove the South Pass City deposition data from NADP as comparable data are available from Snowy Range and Brooklyn Lake, which are both within the RMP project area, (Page 3-7, Section 3.2.6.10, 1st Paragraph; Page F-12, Figure 3-22).

Response: Air quality monitoring data will be updated, as appropriate.

Comment: - The DEIS fails to comply with the National Environmental Policy Act (NEPA) because it does not adequately analyze or disclose the air quality impacts that could occur as a result of the actions authorized under the Rawlins RMP. While the BLM did attempt to provide an air emissions estimate for the Rawlins RMP sources, as well as for reasonably foreseeable development in Wyoming, the DRMP/EIS provided no quantitative assessment of what the increase in air emissions could mean for air quality in the region. Yet, according to the DEIS, the need for a “region wide” air quality analysis was the one of the reasons that the Rawlins (formerly Great Divide) RMP was deficient. (Page 1-7 of DEIS). Apparently, the BLM is content to forge ahead with future development without such a region wide air analysis.

Comment: It is inappropriate for BLM to defer this analysis to some statewide or project-level analysis that may (or may not) be completed at some unspecified future date. The BLM has an affirmative obligation under NEPA to perform this hard look as part of the RMP planning process, in order to be able

to make an informed selection among alternatives. This RMP may not go forward without an adequate air quality analysis. If delays are necessary in the planning process to allow the air quality analysis to catch up, then the BLM must delay the Rawlins RMP EIS so that appropriate analysis is available to decision makers prior to the selection of a final RMP.

Response: NEPA does not require a quantitative study. The Inter-Agency Air Quality Team (including air quality staff from WDEQ Air Quality Digest [WDEQ-AQD], Environmental Protection Agency [EPA], United States Forest Service [USFS], National Park Service [NPS], and BLM) agreed to the “emissions-based” method. BLM has used this approach on other NEPA projects. BLM summarized the potential cumulative impacts from the Atlantic Rim EIS.

Comment: In summary, absent solid justification for assuming that monitoring data reflects all existing sources of air pollution in the region, an emissions inventory of existing sources should have also been prepared for the air quality analyses that should have been done for the Rawlins DRMP/EIS.

Response: The BLM recognizes that some of the data are dated. The WDEQ-AQD has determined that these data are the best available to characterize the background concentrations.

Comment: In summary, the regional inventory of reasonably foreseeable development is incomplete and must be revised to reflect all sources that could impact the same areas that will be impacted by the Rawlins DRMP sources, to completely and accurately reflect currently allowed increases in air emissions, and to completely and accurately reflect all proposed new sources of air emissions.

Comment: Page 4-5/4-9, Sec. 4-2, Air Quality.] The quality emission comparison approach is flawed. This section says emissions were calculated for mineral development, livestock management activities, off-highway vehicle use, resource roads, and vegetation management. The section further states activities related to transportation and recreation were assumed to be minor sources of transmission. Regarding transportation, the comparison fails to mention the daily impact of many thousands of vehicles that travel on Interstate 80, which cuts through the middle of the planning area. Any other air quality emission impact from vehicle use in the planning area pales in comparison. While the document notes that livestock management activities were documented, the DEIS fails to recognize the emissions and dust of the travel of 80,000 participants in hunting and fishing and the emissions and dust of the travel of another 80,000-plus wildlife-viewing participants, as documented in the DEIS sections on recreation. In addition, there are the tailpipe emissions and dust generated by government official vehicles. In comparison, the rare trucking of livestock and the occasional checking of livestock improvements results in dramatically far less tailpipe emissions and dust. These effects are certainly less than just 15 minutes of vehicular travel on I-80 and even markedly less than the daily average of 438 recreational participants, which the DEIS refuses to acknowledge. We noted several of these flaws in our comments of August 6, 2004. Again, they were ignored. If BLM officials are going to tout their qualitative emission comparison approach, they need to ensure the approach compares all emission activities. The DEIS currently selects a few and omits others; others that deserve to be compared.

Response: The regional inventory in the study is considered to be appropriate. The impact analysis is focused on potential impacts from BLM activities in the Rawlins Field Office and is not intended to provide a comprehensive analysis of sources that could impact Bridger Wilderness. Although BLM recognizes that the proposed coal-fired power plants in Utah could impact Bridger Wilderness, these power plants will not be added to the emission inventory.

Comment: Insufficient or inaccurate information exists in both the DEIS and the Technical Support Document resulting in an inaccurate analysis of the emissions attributable to either coal bed natural gas or conventional oil and gas development. The estimates in Tables A4-5, A4-10 and 4-1 and Sections 4.2.2-5

overestimate potential emissions. Because the State of Wyoming has primacy in administering the Clean Air Act within the boundaries of the state, the analysis should have used Wyoming State guidelines. The BLM should consider the use of Universal Compression’s “Compressor Horsepower Selection Chart,” a standard reference for obtaining emissions estimates.

Comment: Page A4-11, Estimation of Emission Factors: To determine future compressor horsepower requirements, rather than using outdated factors (a 1965 rule of thumb equation) or BLM staff estimates, it is necessary to use a more up-to-date and site-specific estimation method. An improved method would provide a more accurate forecast of the compression required and we believe lower the forecasted emissions impact by reflecting that more energy efficient equipment has been developed over the last forty years. [See example and supporting document in letter]

Comment: Revise emission analysis using the above updated emissions data. It must be noted that these emissions figures are still conservative because they assume field compression is required at maximum production, which is not always required for coal bed wells and rarely for conventional natural gas wells.

Response: It is BLM practice to rely on State of Wyoming guidance on emission factors.

Comment: Page A4-4, third sentence, “HAP emissions in the RMPPA are expected to be similar to those found in the Desolation Flats EIS and are comprised of benzene, toluene, ethylbenzene, xylene, n-hexane, and formaldehyde.” This is the only place in the entire document the Desolation Flats EIS is cited

Comment: Revise the analysis to incorporate existing air quality modeling documents. The air quality dispersion modeling analysis that took place for Desolation Flats EIS and others (e.g. Atlantic Rim) could be utilized to better characterize emissions and related impacts. For instance, on page A4-25 it states that; “Given the qualitative nature of the emission comparison approach, it is recommended that the following actions be performed.” These actions have been performed, either through Desolation Flats or the exhaustive analyses done for the Atlantic Rim EIS.

Comment: The narrative that accompanies the inclusion of Table 4-8, which summarizes the far-field air quality impacts from the Desolation Flats EIS is insufficient for full disclosure to the public and the decision maker. As the air quality analyses for the RMP is a qualitative not a quantitative analyses, the narrative must disclose in greater detail why the Desolation Flats analyses is relevant, why the Desolation Flats results are not directly comparable to the RMP projections and that the Desolation Flats analysis itself was outdated at the time of publication. Further, the results presented in Table 4-8 lack a clear introduction and explanation as well as disclosure of the applicability of the results to the cumulative analysis for the RMP. Without such a narrative, the public and decision maker may interpret the inclusion of the data a number of ways. The WDEQ–AQD agrees that it is inappropriate to infer RMP impacts from the Desolation Flats project. To highlight this point, the last paragraph on page 4-250 should be moved prior to Table 4-8, (Pages 4-249 & 4-250, Section 4.20.3, Air Quality).

Response: Thank you for your comment and your interest in the Rawlins RMP. All editorial, document content, and document adequacy suggestions will be reviewed, considered, and applied to the RMP FEIS, where appropriate.

Comment: pp. a4-5, Regional. This paragraph should be changed to reflect that the Regional Haze Rule is only applicable to PSD Class I Areas. Also, the WDEQ has not submitted a final Regional Haze SIP. Rather, it has notified EPA that it will submit a Section 309 Regional SIP and will follow the time frame outlined for 309 SIPs in the Regional Haze Rule. Haze Regulations, 151 paragraph.

Comment: pp. A4-1, Regulatory Framework. While the Regional Haze Rule has been promulgated, states are not required to develop State Implementation Plans (SIPS) until 2006 or later. Therefore, PSD is currently the only mechanism for addressing visibility impairment. This paragraph should be corrected to reflect this input.

Response: Although the Wyoming State Implementation Plan (SIP) is not yet final, BLM has adopted compliance with the Regional Haze Rule as a land management goal.

Comment: The 3rd paragraph on page A4-10 appears to be the only discussion of specific assumptions and/or specific methodology used in emissions estimation. This discussion is completely inadequate to satisfy the disclosure requirements of NEPA. Since the emission calculation spreadsheets are not an inclusion in this AQTSD, it would be more effective to include a companion document to the emissions spreadsheets that discuss specific assumptions and methodologies in detail, (Page A4-10, 3rd Paragraph).

Response: The RMP FEIS includes updated text on the emission inventory assumptions in Appendix 4, as well as in the Emissions CD as the first tabs.

Comment: The Regional Inventory Failed to Adequately Inventory All Small Sources in Wyoming According to TRC's "State Agency-Permitted Industrial Source Inventory," TRC excluded all sources with emissions less than 3 tpy. There were numbers of such small sources, mostly production wells, which were excluded from the regional inventory. Specifically, more than 360 sources were omitted because their emissions were less than 3 tpy, and the majority of these sources were located in Sweetwater or Sublette Counties. Collectively, these facilities represent significant emissions and, thus, these sources should not have been excluded from the inventory.

Response: Many of the small sources are wells included in the emission inventory for BLM sources.

Comment: Third, TRC did not include estimates of emissions due to well pad construction (including emissions from construction traffic – both tailpipe and fugitive dust, as well as due to initial flaring). According to the BLM's base year inventory data, the construction emissions per well were estimated to be 0.17 tpy PM-10 per well, 0.67 tpy of NOx per well, 0.017 tpy of SO2 per well, and 0.08 tpy of VOCs per well. Clearly these are not insignificant emissions and should have been included in the regional inventory estimate.

Response: Oil and Gas construction emissions are included in the inventory for BLM sources.

Comment: Further, as discussed above, the Questar Year-Round Drilling Proposal Finding of No Significant Impact (11/13/04) indicated that NOx emissions from construction – specifically from drill rigs – are much greater than previously estimated for the Pinedale Anticline EIS. As discussed above, it is not clear whether the BLM projected source inventory reflected the latest information from the BLM on the emissions from drill rigs. The TRC inventory of other oil and gas sources must also reflect the latest information from the BLM on the likely emissions from drill rigs.

Response: Emissions from drill rigs are included in the BLM emission inventory. Please contact Susan Caplan for a copy of the emission inventory CD.

Comment: pp. A4-2, Ozone continued, 3rd sentence. It is recommended that this sentence be changed as indicated in the following: "The faint acrid smell common after thunderstorms is caused by ozone formation by lightning. O₃ is a strong oxidizing chemical that can burn lungs and eyes at high concentrations and damage plants."

Response: The RMP FEIS include updated text on ozone in Appendix 4.

Comment: The DRMP/EIS Should Have Also Assessed Impacts of the Rawlins DRMP Alternatives on Ozone Concentrations. The DRMP/EIS did not provide any analysis of impacts from air emissions sources on ground level ozone concentrations. The ozone precursor emissions (NO_x and VOCs) allowed as a result of the Rawlins RMP could have a significant impact on the region's compliance with ambient ozone standards in the near future. Considering that ozone concentrations 94% of the 8-hour ozone NAAQS were monitored in the area as of 2001, it is extremely important that the impact of the Rawlins DRMP on ozone concentrations along with all other existing and expected growth of ozone precursor emissions in the region be evaluated. In fact, with the ozone screening analysis performed for the Desolation Flats EIS, exceedences of the 8-hour ozone NAAQS were already predicted based on Desolation Flats sources alone. The DRMP/EIS is negligent by excluding an analysis of this potentially very significant environment consequence.

Response: Both dispersion modeling and air quality monitoring confirm that ozone is a significant concern in southwest Wyoming. See Air Quality Section 4.2.

Comment: pp. 3-2; Wind Velocity. The wind rose collected at Centennial, Wyoming (presented above) does not look representative of typical synoptic flows in Southern Wyoming. It appears these meteorological data were collected at a location that is significantly influenced by terrain. It is recommended that the RIM document contain a more representative wind rose which should be possible to obtain from the Rawlins, Wyoming Airport or other representative data collected in the region

Response: The RMP/FEIS has been updated to include a wind rose from the Rawlins Airport. See Figure 3-13: Wind Rose for Rawlins, Wyoming.

Comment: FHWA must undertake an investigation of the adverse health effects among populations that will be exposed to all significant air pollutants emitted from the proposed activities that would be approved under the RMP. These include the NAAQS for PM 2.5, adverse health effects identified in post – 1997 research as being attributable to exposure to PM 2.5 at concentrations below the 1997 NAAQS, the ozone NAAQS, and all the major toxic air pollutants emitted as diesel exhaust with emphasis on elemental and organic carbon.

Response: BLM used the National Ambient Air Quality Standards (NAAQS) as significance criteria, including the health-based primary standards in disclosing potential air quality impacts in Chapter 4 of the RMP FEIS. EPA has established the NAAQS and conducts reviews periodically. If EPA revises the standards, these revised standards would be used as significance criteria in future analyses.

Comment: pp. A4-2, Nitrogen Dioxide. The discussion of NO_x emissions is not technically correct: First, engines emit NO which in the presence of ambient ozone forms NO₂ (the regulated pollutant): NO₂ at high concentration can result in a brown cloud, but at typical rural and urban levels this is not likely. NO₂ in the presence of ammonia can form a particulate nitrate as well as nitric acid. This paragraph should be corrected to reflect this input.

Response: The RMP FEIS includes updated text on NO₂ in Appendix 4.

Comment: pp. A4-2 Carbon Monoxide. The document should define high concentrations of CO. It is recommended that health effects be referenced to the NAAQS.

Response: Table A4-1, National and Wyoming Ambient Air Quality Standards, in Appendix 4, Air Quality Impact Technical Support Document, in the RMP FEIS shows the NAAQS for criteria pollutants.

Comment: pp. A4-1, Criteria Pollutants. A discussion should be added that the NAAQS are established by EPA to protect human health and are designed to protect the most sensitive portion of the population. These standards are reviewed every 5-years and undergo extensive peer review and public comment. The NAAQS specify the maximum concentration level, the averaging time or exposure time and a statistical form of the standard that defines when an exceedance would occur. This paragraph should be corrected to reflect this input.

Response: The RMP FEIS includes updated text in Appendix 4 to clarify the purpose and form of the NAAQS.

Comment: pp. 3-4; 3.2.6.3 Because the CASTNet data are used to describe the affected environment and these are not routine measurements, it is recommended that information be provided regarding the sampling methodology and analytical protocols that were used.

Response: The information can be found at www.epa.gov/castnet/data.html

Comment: pp. 3-3; 12.6.1 The DEIS states “Ambient air concentration refers to the mass of pollutants present in a volume of air and can be reported in units of micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) or parts per billion (ppb).” This statement is technically incorrect. Concentrations expressed in $\mu\text{g}/\text{m}^3$ represent the mass of pollutant per volume of air. Concentrations expressed as ppb represent a concentration on a volume basis, not a mass basis: (1 ppb represents 1 volume of air per billion volumes of air).

Response: The RMP FEIS includes updated text in Section 3.2.6.

Comment: BLM, EPA, and the WDAQ are developing a refined mitigation table for air emissions in the Casper district. The intent of this table is to present information that can be easily extracted from the RMP and applied to the mitigation of environmental impacts from future, specific oil and gas field developments. If this table is available prior to release of the FEIS, BLM should consider including the refined mitigation table in the FEIS for the Rawlins RMP. Specifically, the costs of mitigation for the pollutants that contribute to visibility impairment should be in the FEIS to inform future operators that they may no longer be able to release pollutants into the air without any associated mitigation.

Response: I have sent EPA the draft mitigation table.

Comment: 4-5 Why does the lack of quantitative analysis prevent an assessment of the significance of impacts to air quality? Appendix 4 states that the best available information suggests that “RMPPA activities could contribute to a significant impact on visibility in the Bridger, Fitzpatrick, Mount Zirkel, and Rawlins Was.” A4-25. See also 4-248 to 251. And “emissions described [in the EIS] may contribute to significant impacts on total nitrogen deposition.” What is BLM’s best professional judgment as to the significance of air quality impacts? What is BLM’s best professional judgment as to the impacts of a more-than-doubling of pollution (from 20,960 tpy to 43,545 tpy), especially relative to ozone, which is already at 94% of the NAAQS? How does this refusal to even venture an estimate of air quality impacts comply with the requirements at 40 C.F.R. § 1502.22, particularly 40 C.F.R. § 1502.22(b)(4)?

Response: The qualitative analysis prevents a detailed quantitative assessment of potential impacts. The qualitative analysis suggests that potential impacts to ozone and visibility may be significant.

Comment: While BLM may believe that summing pollutants highlights relative differences between alternatives, the DEQ-AQD believes that it is misleading to the public and the decision maker. Each pollutant has unique effects on air quality and the environment, and therefore, is addressed separately

when managing air quality. To truly evaluate the differences between alternatives and how they will affect air quality, the changes in emissions should be presented by pollutant, (Page A4-22, Table A4-9).

Response: While BLM agrees that it is not appropriate to sum pollutants for a quantitative study in which individual pollutant effects need to be managed at the project level, BLM feels the public and decisionmakers will understand the relative emission differences between the alternatives. To address the concern of the WDEQ, BLM has included individual pollutant values in Figures 4-5 through 4-8, Potential Emissions from BLM Sources, including each pollutant's change, as well as the total emissions.

Comment: The Wyoming Department of Environmental Quality Air Quality Division has notified my office that it has responded to BLM's request for cooperator comments at least seven times. Each time it has found that its comments had not been addressed, with the same errors being repeatedly carried forward to the next revision of the document. The Division's experience is less than satisfying for the agency and less than ideal for a planning process so heavily dependent on a sound air quality analysis. I would ask that the Division's final comments be addressed either by inclusion or with a full explanation stating the reasons for not incorporating the comments into the document.

Response: BLM regrets that agreed-to changes were not made. In response to this, BLM began keeping a detailed comment log to document comments and to ensure that agreed-to changes are made.

Comment: Page 1-7, bullet 1: "Although air quality decisions are adequate (i.e., comply with state law and standards and guidelines), there is a need for a region wide analysis." No justification for a region-wide analysis has been offered. **Comment:** Delete this sentence unless BLM revises the document to provide scientific justification demonstrating that such an analysis is necessary.

Response: A description of the regionwide analysis, called State of the Atmosphere, is contained in the cumulative impact analysis for air quality in Section 4.20.3, Impacts by Resource—Air Quality, in the RMP FEIS.

Comment: Page ES-4, "Special requirements to alleviate air quality impacts would be considered on a case-by-case basis in processing land use authorizations." **Comment:** BLM has not specified what types of special requirements might be required and fails to acknowledge the fact that the State of Wyoming Department of Environmental Quality/Air Quality Division has primacy for managing air quality. Revise the discussion on the above-referenced page to provide specific information regarding any requirements, which exceed those required by the State. In addition, we recommend that BLM also outline its authorities for such requirements.

Response: The RMP FEIS includes updated text on special requirements in the ES.

Comment: The prescribed fire emissions estimation for all four alternatives must be disclosed, not just that for Alternative 1, (Page A4-17).

Response: The RMP FEIS includes updated text on prescribed fire emissions.

Comment: As a component of the cumulative air quality analysis, BLM cites dispersion modeling that was conducted for the Desolation Flats EIS of 2003. See, for example, Table 4-8 and its accompanying text. We recommend also including in the FEIS the results of dispersion modeling that BLM is conducting for the Atlantic Rim and Seminoe Road projects, both of which are in the Rawlins district.

Response: The RMP FEIS includes a summary of dispersion modeling conducted for the Atlantic Rim project to provide the most recent potential air quality impacts in the Rawlins field office.

Comment: As explained in section 4.2, the DEIS relies on a qualitative approach that involves comparing estimates of emissions that will occur in 2008 and 2023 to emissions that occurred in 2003. EPA recognizes the need to conduct an analysis that is more general than those conducted for individual development projects. This type of analysis, however, does not give data that can be compared to air quality standards or air quality related values such as visibility impacts in Class I areas and nitrogen deposition in high mountain lakes. BLM plans to complete a statewide air quality analysis based upon dispersion modeling by early 2006. The statewide air quality analysis will give quantitative results, including impacts on air quality related-values that are not available in the RMP. Consequently it is important that BLM commit adequate resources to ensure the defensibility of the analysis.

Response: BLM is committed to the State of the Atmosphere study. Air quality results from the State of the Atmosphere study and the quantification of air quality impact analyses conducted for future projects will guide the application of best management practices (BMPs), mitigation measures, etc., during implementation of the Rawlins RMP.

Comment: In summary, the above information provides strong indication that the Rawlins DRMP sources in conjunction with other existing and reasonably foreseeable development, will result in significant adverse impacts on visibility and nitrate deposition in nearby Class I areas such as the Bridger wilderness area and will likely result in adverse impacts on ozone concentrations in excess of the health- and welfare-based ozone NAAQS. If an adequate and complete air quality analysis had been done for the Rawlins DRMP, as discussed further below, the analysis would likely verify that significant adverse air quality impacts will occur as a result of the Rawlins RMP and all other reasonably foreseeable development. In the absence of an adequate air quality analysis, the BLM should have evaluated the available information as done above and disclosed the strong likelihood of significant adverse impacts on visibility and other air quality related values and on compliance with the ozone NAAQS, and provided measures in the DRMP to prevent or mitigate these impacts.

Response: Both dispersion modeling and air quality monitoring confirm that ozone is a significant concern in southwest Wyoming. Recent dispersion modeling has identified visibility in Bridger Wilderness as a concern.

Comment: BLM should establish a goal for air quality and work cooperatively with the Wyoming Department of Air Quality to ensure that this goal can be achieved. As stated in the DEIS, the recent modeling results for the Desolation Flats EIS suggest that RMPPA activities could contribute to a significant visibility impact in Bridger, Fitzpatrick, Mount Zirkel, and Rawah Wilderness Areas.

Response: BLM worked together with WDEQ to establish our Air Quality Goals and Objectives, as presented in the RMP FEIS in Table 2-1 in Chapter 2.

Comment: With regard to estimating HAP impacts, several items need to be included that are omitted from RMP TSD. First, EPA has not promulgated any risk regulatory thresholds for carcinogenic impacts. Therefore, the resulting estimated cancer risks should be compared against the generally accepted cancer risk in the range of 1×10^{-6} to 100×10^{-5} , (10⁻⁶ to 10⁻⁵) presented in the “Superfund” National Oil and Hazardous Substances Pollution Contingency Plan (EPA, 1990). Second, it is important to examine the spatial distribution of risk over the region especially at known locations where houses exist.

Response: The RMP FEIS includes updated text on cancer risk in Appendix 4.

Comment: pp. A4-2, Hazardous Air Pollutants, 2nd paragraph. The paragraph is not clear and needs to be revised. It is recommended that it be changed to read: The EIS associated with the Rawlins Resource Management Plan (RMP) is a National Environmental Policy Act (NEPA) document and not a regulatory

document, but the Record of Decision is binding and a “public record” (see 40 CFR 1505.2). NEPA is a precursor to specific project development and any project will be required to obtain an air quality pre-construction permit for permanent emission sources from WDEQ before construction can begin. As part of the pre-construction process, sources must comply with applicable MACT regulations for HAPs (Section 112 programs, specifically Section 112(g) case-by-case MACT determinations based on 40 Code of Federal Regulations (CFR) Part 63, Subpart B, and Section 112(d) MACT emission standards). In addition, WDEQ has a BACT requirement that is applicable to minor sources of HAPs.

Response: The RMP FEIS includes updated text on the maximum achievable control technology (MACT) requirements.

Comment: pp. A4-2 Hazardous Air Pollutants, 1st paragraph. It is important to state that these reference concentrations are simply guidelines and have no regulatory or legal basis if measured or modeled concentrations are in excess of them.

Response: The RMP FEIS includes updated text on Hypoxia Advisory Panel (HAP) guidelines.

Comment: Without air quality analyses performed for the Rawlins DRMP, it is necessary to consider previous air quality analyses done for southwest Wyoming projects and to review other data from the region to determine if a significant adverse impact on air quality will likely occur as a result of the Rawlins DRMP and other contributing sources. Available information indicates that air quality in Wyoming is already being significantly affected by pollution from oil and gas development in the southwest part of the state and that increases in emissions authorized by the Rawlins DRMP and other reasonably foreseeable development will likely adversely affect air pollution in Wyoming, as follows:

Response: Table 4-8, Summary of Far-Field Air Quality Impacts from the Desolation Flats EIS, in the RMP/FEIS summarizes the potential cumulative impacts analyzed for the Desolation Flats EIS. A summary of potential cumulative impacts from the Atlantic Rim Coalbed Natural Gas (CBNG) development project has been added to the RMP FEIS as Table 4-9, A Summary of Far-Field Air Quality Impacts from the Atlantic Rim EIS. These two tables both show that potential cumulative impacts to visibility in Bridger Wilderness may exceed management thresholds. Potential impacts to concentrations of PM₁₀, NO₂, and SO₂ are likely less than the applicable NAAQS, and potential impacts to lake chemistry are likely less than the applicable levels of acceptable change (LAC).

Comment: 1) The Record of Decision (ROD) for the Pinedale Anticline Oil and Gas project (July 2000) indicates two caps on nitrogen oxide (NO_x) emissions from Pinedale Anticline project sources that, if either is exceeded, must trigger the need for additional cumulative air quality review (Page 16 of Pinedale Anticline ROD). According to the Questar Year-Round Drilling Proposal Finding of No Significant Impact (11/13/04), the NO_x cap of 693.5 tons per year (tpy) from the combination of construction/drilling, well production, and compression has been exceeded in the Pinedale Anticline project area; in fact, the 2004 emissions were more than two and a half times the NO_x cap. (See pages 3-20 to 3-21, and page 4-26 of the Questar Year-Round Drilling Proposal Finding of No Significant Impact.)

Response: The Jonah Infill EIS provided an analysis of the potential cumulative impacts.

Comment: 2) The Pinedale Anticline ROD also discusses a visibility “level of concern” of 977 tpy of NO_x for southwest Wyoming (Page 17 of the Pinedale Anticline ROD). If the NO_x emissions after January 1, 1996 in the area of Southwest Wyoming modeled for the Pinedale Anticline EIS (Lincoln, Uinta, Fremont, Sweetwater, Sublette, and parts of Carbon and Teton counties) increase above that level, it could indicate a level of concern of adverse visibility impacts. Had the BLM continued with its

requirement to continue to track changes in NO_x emissions in that region, we would have actual emissions data to compare against the 977 tpy visibility level of concern. However, the BLM apparently has not done such an inventory review since 2000. Thus, the best data we have to review are the Wyoming Department of Environmental Quality (WYDEQ) tracking reports of changes in permitted emissions. The December 6, 2004 WYDEQ “Southwest Wyoming NO_x Emissions Tracking” report indicates that, just in 2004, at least 721 tpy of additional NO_x emissions were permitted for sources in Sublette and Sweetwater counties. Reviewing the net change in NO_x emissions in the WYDEQ reports (which reflects permitted emissions changes since January 1, 1996) is misleading, since it reflects a 10,807 tpy decrease in potential emissions of NO_x at the Naughton power plant when the enforceable limits in Naughton’s permit only reduce actual emissions by 1,000 tpy. If one does not credit the reduction in potential to emit NO_x emissions of 10,807 tpy and instead credits only the enforceable emission decrease at Naughton of 1,000 tpy, the net increase in permitted NO_x emissions in southwest Wyoming from January 1, 1996 through October 31, 2004 is 1,135 tpy. Thus, the State’s emission data provides indication that the 977 ton per year level of concern has been exceeded.

Response: BLM has restarted the Nitrogen Oxide (NO_x) Tracking report. Please contact Susan Caplan for information.

Comment: 3) Modeling analyses performed for the Desolation Flats EIS provide the most current modeling analyses available for prediction of ambient impacts from the Rawlins DRMP sources, since this is the most recent EIS completed for sources within the Rawlins Field Office area. Importantly, the Desolation Flats modeling analyses indicates that the national ambient air quality standards (NAAQS) for ozone could be exceeded. Specifically, the screening analysis performed for Desolation Flats project sources alone indicates that the project would produce an 8-hour average ozone concentration of 18 micrograms per cubic meter (µg/m³) and, with the background ozone concentration based on 1997-1999 data of 139 µg/m³, the total concentration was predicted to be 157 µg/m³ – equivalent to the 8-hour average ozone NAAQS. (See page 16 of Sub-Grid Ambient Air Quality Technical Report for the Desolation Flats Natural Gas Exploration and Development Project, June 2001). However, Appendix 4 of the Rawlins DRMP/EIS indicates that the background ozone concentration has increased since that time to 147 µg/m³ (as of December 31, 2001) and yet none of the Desolation Flats project sources had been developed as of 2001 (and thus could not have been reflected in the background ozone concentration). Thus, using the more current background data, the Desolation Flats EIS predicts a likely violation of the ozone NAAQS. With the addition of the 20,340 tpy of volatile organic compounds (VOCs) and 9,732 tpy of NO_x from full development of Rawlins RMP sources as well as the increase in NO_x and VOC emissions from other reasonably foreseeable development in the region, violations of the ozone NAAQS seem almost assured as a result of the Rawlins RMP. Further, the cumulative modeling analysis performed for the Desolation Flats EIS, which evaluated changes in emissions since 1995, shows that adverse impacts on visibility could occur at several Class I areas with the most significant impacts (greater than a 10% change in visibility) occurring at the Bridger and Fitzpatrick wilderness areas (See page 102 of the Near- and Far-Field Ambient Air Quality Technical Report for the Desolation Flats Natural Gas Exploration and Development Project, June 2001). This analysis considered the 1,000 ton per year reduction of actual emissions of NO_x at the Naughton power plant and yet still showed adverse impacts. With the addition of 9,732 tpy of NO_x, 2,785 tpy of PM-10, and 114 tpy of SO₂ from full development of Rawlins RMP sources as well as the increases in these pollutants from other reasonably foreseeable development, adverse impacts on visibility at the Bridger and Fitzpatrick Wilderness Areas seem assured.

Response: Both dispersion modeling and air quality monitoring confirm that ozone is a significant concern in southwest Wyoming. Recent dispersion modeling has identified visibility in Bridger Wilderness as a concern. The cumulative impact analysis in Section 4.20.3, Impacts by Resource—Air Resources, in the RMP FEIS states that “...results of the quantitative analyses using modeling performed

for (the Desolation Flats and Atlantic Rim EISs) suggest that RMPPA activities could contribute to significant impact to visibility in Bridger, Fitzpatrick, Mount Zirkel, and Rawah Wilderness Areas.” Recent regulatory monitoring of ozone concentrations near natural gas development in the Upper Green River Basin recorded elevated ozone levels during the winter months. It should be noted that to date, there is no finding of an ozone air quality standard violation at the monitoring sites in the Upper Green River Basin.

Comment: pp. A4-2, Ozone. “Internal combustion engines are the main source of NOR.” It is recommended that the above sentence be changed as follows: “Ozone O₃ is a gas that is not emitted directly into the atmosphere but is formed in the presence of sunlight from NO₂ and volatile reactive organic compound (VOC) emissions.”

Response: The RMP FEIS includes updated text on ozone in Appendix 4.

Comment: Even if it were permissible for BLM not to perform a regional modeling analysis to determine the impacts of emissions from the project, it should at least disclose the expected cumulative increase in emissions. But the DEIS explains that “only emissions from Rawlins Field Office BLM administered activities are included.” DEIS, p. A4-12. No assessment of cumulative emissions that will affect receptor areas of concern, such as the Class I areas identified on Figure 4-10 in the Desolation Flats DEIS, was included. Thus the DEIS fails to include any consideration of the cumulative impacts of the proposed activities.

Response: Other RMPs reported the potential emission increase from BLM activities within their field office areas: Pinedale, Kemmerer, and Casper

Comment: pp. A4-4, Prevention of Significant Deterioration, first bullet. This sentence should be modified to include a discussion that PSD Class I Areas are mandatory areas for protection and preservation as designated by Congress.

Response: The RMP FEIS includes updated text on air quality protection accorded to mandatory Prevention of Significant Deterioration (PSD) areas in Appendix 4.

Comment: pp. 4-8; 4.2.1 Impacts Common to All Alternatives; 5th full paragraph, second sentence. It is important to note that air emissions associated with well development and completion are not continuous emissions but are rather temporary emissions. Typical well drilling and completion will be a limited number of days.

Response: While drilling emissions are limited to a number of days for each well, drilling would occur within the RMPPA throughout the life of the plan.

Comment: pp. 4-7; first paragraph, second sentence. It is premature to discuss possible mitigation methodologies to reduce visibility impairment and deposition impacts based on a qualitative air quality analysis simply based on emission projections. Detailed air quality analyses, based on an analysis of aerometric data and sophisticated air quality modeling, are required prior to assessing the need for additional controls beyond Wyoming Department of Environmental Quality (WDEQ) Best Available Control Technology (BACT) for new and modified sources. Also, the role of VOC emissions in potential changes in visual range is scientifically unclear at this time. In the Southwestern Wyoming Technical Air Forum (SWWYTAF), one of the major conclusions was that VOC emissions in excess of C7 could form secondary organic aerosols and VOCs having a carbon number of C6 or less did not form these organic aerosols. Typical oil and gas VOCs have very few emissions above C6 and therefore are not likely to

influence visibility. The role of VOCs in deposition and the potential effects of such deposition have never been addressed in any Class I Air Quality Related Values (AQRV) analyses.

Response: Mitigation options are provided as examples of measures that would be applied as appropriate. Quantitative analyses of potential impacts from specific proposed projects are required to determine whether mitigation would be applied. Volatile organic compound (VOC) emissions are included because of their role in ozone formation.

Comment: pp. 4-5; 4.2 Air Quality. In developing the air quality portion of the Rawlins RMP, a qualitative air quality analysis was conducted. As part of this qualitative analysis, potential emission increases were developed for several alternatives and for various types of development. Since this is a programmatic EIS and there are not specific development proposals at this time, this approach is very appropriate. It would not be cost effective for BLM to develop engineering that could be used for a more detailed air quality analysis for various levels of development. As specific project proponents are developed, BLM must require a more in-depth analysis, including cumulative ambient air quality analyses (modeling). When such proposals are developed, BLM should conduct appropriate stakeholder meetings to discuss how such analyses will be performed.

Response: BLM, in consultation with the interagency air quality team, requires quantitative air quality analyses for proposed projects.

Comment: pp. 4-8; 4.2:1 Impacts Common to All Alternatives; 6th full paragraph. Emissions from natural gas fired compressor engines would emit formaldehyde (a HAP) in addition to NO_x and CO. For flaring emissions it is very unlikely that SO₂ emissions would occur because the produced gas is not likely to contain any H₂S. In addition, flaring (an air pollution control device) is not likely to result in any significant VOC or HAP emissions because the purpose of the flare is to combust VOC into CO₂ and water.

Response: While flaring does not represent a substantial source of emissions overall, flaring is an important issue for many residents living near gas fields.

Comment: In Section 3.2.6.13 of the DEIS on page 3-8. There are several issues with the conclusions regarding total nitrogen deposition in both of these subsections. First, nitrogen deposition data should be presented for the Bridger PSI) Class I Area in addition to Centennial, Wyoming. Second, a 5 kg/ha-year level of concern is simply a threshold of potential concern and does not have any regulatory implication. Third, this level of concern is only applicable, in the strictest sense, in Mandatory PSD Class I Areas and Centennial, Wyoming, and the nearby Snowy Mountain Range are not associated with a Mandatory PSD Class I Area. In addition, as indicated in the above figure, there only a 1 year period where nitrogen deposition exceeded the 5 kg/ha-yr threshold (approximately 5.1 kg/ha-yr). Based on these comments, it is not appropriate to make the statement that "Best available data indicate potential issues with deposition."

Response: The atmospheric deposition level of concern (LOC) has been adopted by BLM as land management guidance for deposition on federal lands. The LOC of 1.5 kg/ha-year has been proposed by the USFS.

Comment: pp. 3-7; 3.2.6.10 Wet Deposition. The Seinfeld 1986 reference to natural acidity of rainwater is very out of date given the amount of more current research that has been done in this area and that should be used for comparison. Also, it would be useful to compare data from several other Wyoming sites to determine if there are significant differences.

Response: The RMP FEIS includes updated text in Section 3.2.6 and Figures 3-28 and 3-29.

Comment: Item: pp: 3-6; 3.2.6.8 Visibility Comment: The DEIS states: "Figure 3-20 shows annual visibility in Rocky Mountain National Park from 1989 through 2001. Visibility on the 20 percent clearest day's vanes from 4 to 6 dv (visual range of about 150 to 173 miles)." Similar information should be presented for the Bridger Class I Area.

Response: The RMP FEIS includes a description of visibility for the Bridger Wilderness Area in Section 3.2.6.

Comment: pp. A4-4, Atmospheric Deposition Constituents, paragraph 1, 1st sentence. This statement is technically not correct and should be modified to read: Sulfur and nitrogen compounds that can be deposited in terrestrial and aquatic ecosystems include nitric acid (HTJ03), ammonium nitrate particles (NH₄NO₃), ammonium sulfate.(NH₄)₂SO₄) and sulfuric acid (H₂SO₄).

Response: The RMP FEIS includes updated text on deposition in Appendix 4.

Comment: I also ask that they provide credible evidence that doubling emissions for air pollutants will not exceed the ozone's national ambient air standard, which is currently already at 94% of the level allowable to protect public health, and that they analyze the impacts to visibility and allowable pollution in the Bridger, Mount Zirkel Wilderness Areas, Dinosaur National Monument, and the Snowy Range, as well as the impacts of hazardous air pollutants and contributors to acid rain, and make a quantitative effort to analyze air pollution.

Response: Both dispersion modeling and air quality monitoring confirm that ozone is a significant concern in southwest Wyoming.

Comment: Considering the recent studies on the ozone potential of oil and gas development emissions, the elevated ozone concentrations in the region, and the health and environmental impacts that can occur, it is imperative that the DRMP/EIS disclose to the public the environmental impacts that could occur due to ozone formation from the various alternatives of the Rawlins DRMP, as well as with all existing and reasonably foreseeable growth in contributing VOC and NO_x emissions to the region.

Response: Both dispersion modeling and air quality monitoring confirm that ozone is a significant concern in southwest Wyoming.

Comment: pp. A4-4, Atmospheric Deposition Constituents, 15t paragraph, 5th sentence. The quantification of ammonium emissions is very difficult. While feedlots and fertilizer application are two sources, there are many more types of sources including natural sources.

Response: The RMP FEIS includes updated text on ammonium emissions in Appendix 4.

Comment: Page ES-4, Air Quality: "Special requirements to alleviate air quality impacts would be considered on a case-by-case basis in processing land use authorizations." Recommendation: BLM should revise the statement to ensure that it does not create confusion regarding the extent of BLM's authority versus that of the state of Wyoming. The sentence should include language such as; "special requirements, within the scope of BLM's authority, would be considered".

Response: The RMP FEIS includes updated text clarifying BLM's roles in air quality in the ES.

Comment: Pg. F-26 thru F-37, On the whole, the number of both CBM wells and natural gas wells are increasing over 2003, 2008, and 2023 (Figures 4-1 thru 4-4) with all alternatives. However, contributions of emissions from CBM as depicted in Figures 4-9 through 4-12 indicates a dramatic increase of emissions is expected from 2008 to 2023. For conventional development (Figures 4-13 that 4-16) emissions levels do not exhibit the same degree of growth and in some cases even decrease. Insufficient information exists in both the DEIS and the Technical Support Document to allow an analysis of the emission attributable to either coal bed natural gas or conventional oil and gas development. Recommendation: BLM should provide additional information regarding how the emission estimates were derived.

Response: More detailed information on the estimation of emissions is available on the BLM Emission Inventory CD. Contact Susan Caplan for a copy.

Comment: For air quality, monitoring would be recorded in parts per million. DEIS at A17-4. However, the haze index, measured in deciviews, is also needed to determine loss of view in areas of VRM Class 1 or 2.

Response: The RMP FEIS includes updated text on air quality monitoring in Appendix 17.

Comment: The air quality data used to describe the affected environment in Chapter 3 should be limited to data collected within the RMP project area. The only time data should be used from outside the project area is when comparable data was not collected within the RMP project area (e.g., Rocky Mountain National Park visibility data was used because there was not an adequate amount of visibility data from Brooklyn Lake). Please update the summary and associated graphs to remove the Rocky Mountain National Park deposition and ozone data from CASTNet as comparable data are available from Centennial, which is within the RMP project area. (Page 3-4, Section 3.2.6.3, Pages 3-4 & 3-5, Section 3.2.6.4, Page 3-5, Section 3.2.6.5; Page 3-7, Section 3.2.6.11; Page F-7, Figure 3-12; Page F-9, Figure 3-16; Page F-11, Figure 3-19; Page F-14, Figure 3-26).

Response: The BLM prefers to include locations that are outside the Field Office Area which could be impacted by area activities. BLM feels these data are important to the investigation of impacts to lands outside the Field Office boundaries.

Comment: Considerable work has yet to be done on correctly representing air quality conditions and defining future conditions. We agree with BLM that a quantitative relationship between expected emissions and impacts to Air Quality related values is not possible. Because of this, we strongly recommend that a monitoring strategy be developed and implemented prior to or concurrent with future development activities to establish a benchmark air quality level. This is particularly important in the southern portion of the RMP area due to possible impacts from the Colorado Front Range.

Response: BLM has committed to developing a monitoring strategy, as presented in the Goals and Objectives for Air Quality in Table 2-1, Detailed Comparison of Alternatives, and in Appendix 17, Monitoring and Evaluation.

Comment: Assuming It Is Appropriate to Consider Monitoring Concentrations as Reflecting All Existing Sources of Emissions, the Emission Inventory Baseline Should Have Been Based on the Base Year Used for the Pinedale Anticline EIS Emissions Inventory Even assuming that reliance on air monitoring concentrations was appropriate (which might be the case only for compliance with ambient air quality standards, not the PSD increments or air quality related values as discussed above), the regional inventory baseline should have been based on the same base year used for the Pinedale Anticline EIS. In the Pinedale Anticline EIS, a base year of 1995 was used for development of the inventory for the cumulative

air quality analysis. Based on the Pinedale Anticline EIS emission inventory and modeling analyses, emission “levels of concern” were developed. Further, the WYDEQ and the BLM have been tracking changes in permitted source emissions and actual emissions (although the BLM has not completed an actual emissions inventory report since 2000) since January 1, 1996. With the BLM now using an inventory of emissions changes since January 1, 2000 for both the Rawlins and Pinedale RMPs, it is difficult to reconcile the regional inventory done for these new DRMPs with the emissions tracking that has been done based on changes since January 1, 1996.

Response: The base year was selected, because at the time BLM completed the analysis it reflected the most recent year that both ambient air quality and activity data were available. Also, the Pinedale Anticline data were not available to us at that time.

Comment: Assuming that existing sources are reflected in background concentrations is also not consistent with current practice for analyzing emissions impacts. Background air monitoring data is generally added to the results of a cumulative source modeling analysis in determining compliance with the NAAQS. However, as discussed in EPA’s Guideline on Air Quality Models, if the source being modeled is not isolated, as is the case in this modeling assessment, then modeling of existing sources is necessary to determine the potential contribution of background sources. See Section 9.2.1 of 40 C.F.R. Part 51, Appendix W.

Response: BLM disagrees. Assuming that existing sources are reflected by background concentrations is consistent with current practices. However, for this application air pollution dispersion modeling was not employed in this analysis because the nature and extent of the development was not known.

Comment: The emissions tracking done as a result of the Pinedale Anticline EIS modeling is considered necessary to ensure that air quality standards are complied with. Since the BLM has performed no subsequent modeling for the Rawlins DRMP, this emissions tracking is one of the main tools the public and government officials have to determine whether adverse air quality impacts will occur as a result of the Rawlins DRMP and other contributing sources in the region. Thus, the regional air emissions inventory should have reflected all changes since January 1, 1996.

Response: BLM disagrees that the regional inventory should include all emission changes since 1996.

Comment: According to the TRC report, these smaller sources were exempted if no single piece of combustion equipment emitted more than 2 tpy, because it was assumed that such sources would be encompassed in TRC’s emission estimates for Wyoming Oil and Gas Conservation Commission sources. As discussed in detail in the next comment, there are several problems with the emission estimates for Wyoming Oil and Gas Conservation Commission sources. For the projected oil and gas agency sources, TRC assumed a NOx emission rate for each well of 0.045 tpy of NOx. However, in looking at the TRC database of WY DEQ permitted emission facilities, the exempted “production wells with emissions < 3 tpy” included numerous sources with allowable NOx increases well in excess of 0.045 tpy, including one well with an allowable NOx rate of 4.6 tpy. In fact, none of WYDEQ permitted production wells identified in the TRC permitted source database had allowable emissions as low as 0.045 tpy. Further, the projected oil and gas emissions from Wyoming Oil and Gas Conservation Commission sources only included oil and gas sources permitted as of 2002, whereas the WYDEQ permitted source database included sources permitted through June 2003. It appears that 25% of the production wells excluded from the WYDEQ source inventory were permitted in 2003, and thus the oil and gas projected source inventory did not include at least 25% of new oil and gas wells.

Response: The BLM used the analysis from the TRC Report. At the time, this report reflected the best available knowledge of overall emissions in Wyoming. The State of Atmosphere Study will provide additional information.

Comment: Given that BLM has also determined that air pollutants expected to be emitted from the oil and gas activities allowed by the four RMP amendments for the Powder River Basin Oil and Gas Project approved in April 2003 will cause a violation of the maximum allowable increase for PM-10 in the Washakie WA, BLM has an obligation here to determine if emissions from the proposed Rawlins RMP may also contribute to the consumption of the maximum allowable increases established under the CAA for PSD class I areas where all or a large portion of the increment has already been consumed.

Response: The BLM disagrees. Since there is little existing data on the nature and extent of the proposed development, it is not feasible to model impacts to PSD Class I areas.

Comment: Further, nitrate deposition data from Hobbs Lake and Black Joe Lake in the Bridger Wilderness area show significant upward trends since 1986. In addition, a comparison of the acid neutralizing capacity (ANC) at Deep Lake in the Bridger Wilderness shows that greater than a 10% change in ANC has occurred at Deep Lake between 1998 and 2003. This determination is based on a comparison of the 10th percentile ANC at Deep Lake based on 1984-1998 data of 49 microequivalents per liter ($\mu\text{eq/l}$) and the 10th percentile ANC at Deep Lake based on 1984-2003 data of 59.9 $\mu\text{eq/l}$. Such a change in ANC at these lake exceeds the USFS's 10% level of acceptable change in ANC.

Response: The BLM agrees.

Comment: Fourth, the TRC regional inventory for oil and gas sources only looked at changes in production between 2002 and 2000. Thus, it does not reflect all oil and gas source emissions in the region (only the changes between 2002 and 2000), and it does not even reflect current oil and gas source emissions in the region.

Response: The analysis used best available data at the time of the report. It is the BLM's intent to have these data updated as site-specific EISs are prepared for more defined development projects.

Comment: In the past, BLM has performed emissions analyses to determine the magnitude of emissions increases that can be allowed in an area without causing or contributing to violations of air quality requirements. See ROD for "Jonah Field II Natural Gas Development Project" (BLM 1998), pp. 17-20. This ROD established limits on emissions within the project region based upon a modeling analysis that determined the maximum increase in emissions associated with the permissible threshold of change in visibility impairment and acid deposition into sensitive watersheds. This cap on emissions increases was combined with an emission tracking program to determine when permitted emissions reached the cap. At that point additional emitting activities were not to be approved unless off-setting emissions reductions were obtained to provide room for further development. This approach prompted Ultra Petroleum to purchase emissions reductions from the PP&L Naughton Power Plant which reduced its actual emissions by 1,000 tons per year. WOC believes that this approach is appropriate in this situation as well.

Response: It is BLM's policy to apply the detailed approach identified for Jonah for a development project with a defined development scope. Since the Rawlins RMP has no such defined nature, modeling was not determined to be feasible.

Comment: BLM must perform such [PSD] analysis to determine whether the large increase in emissions it proposes to allow will cause or contribute to a violation of PSD increment. For these reasons, the EIS must include a full modeling analysis, including a regulatory PSD increment consumption analysis, so

that BLM's obligation to develop and adopt sufficient mitigation measure may be performed as part of the RMP NEPA analysis and adopted as conditions in the ROD.

Response: Wyoming DEQ-AQD has the regulatory responsibility and authority to perform Increment Consumption Analysis.

Comment: Although not explicitly stated in the DRMP/EIS or the TRC report, it appears that – if and when air quality analyses are done for the Rawlins DRMP and other sources impacting the region - the BLM will be relying on monitoring data to reflect existing source emissions in the region. According to Appendix 4 of the Rawlins DRMP/EIS, the background concentrations of air pollutants are from monitors located throughout the state and/or from monitoring data that is 20+ years old. Specifically, for NO₂ and ozone, the background concentrations are based on data collected at the Green River Basin Visibility Study Site during January – December 2001, PM-10 and PM-2.5 data are from 2002 data collected in Cheyenne, SO₂ data are from the period of 1982-1983 at the LaBarge Study area, and CO data from Ryckman Creek collected for an eight-month period during 1978-1979. To assume that any of these monitoring stations are reflective of existing source impacts in the Rawlins Field Office area or at the Class I/Class II areas that should have been modeled in the future is farfetched without an analysis to indicate that the monitors are reflective of the current maximum concentrations for the Rawlins Field Office and nearby areas.

Response: BLM defers to regulatory Wyoming DEQ-AQD to establish background concentrations for Wyoming.

Comment: The Regional Inventory Improperly Omitted Air Pollution Sources Which Were Operating Prior to January 1, 2001 A regional inventory was developed to support the Rawlins DRMP, as well as the forthcoming Pinedale DRMP, by TRC Environmental Corporation. However, this inventory did not consider any sources which were operating prior to January 1, 2001, unless such sources obtained permits to modify between January 1, 2001 and June 30, 2003. Apparently, the January 1, 2001 date was chosen as the “base year” date (although no discussion of why this date was chosen is provided either in the DRMP/EIS or in the TRC report). It is also two years earlier than the 2003 base year date used in the Rawlins BLM source inventory compiled by the BLM. Further, unlike the BLM's inventory of sources in the Rawlins Field Office area, no inventory of existing source emissions was compiled. Thus, the BLM has no inventory of all sources actually impacting air quality for evaluation of impacts on state and federal air quality standards, prevention of significant deterioration (PSD) increments, or on air quality related values such as visibility.

Response: Impacts from sources operating before January 1, 2001, are assumed to be represented in the background concentrations. Recent concentrations monitored by the regulatory State and Local Air Monitoring Station (SLAMS) 56-037-0200 in southeastern Sweetwater County are consistent with the background concentrations shown in table A4-3. Concentrations of NO₂, PM_{2.5}, PM₁₀, and SO₂ are well below the applicable NAAQS. Concentrations of O₃ are high, although WDEQ has determined no exceedance or violation of the NAAQS.

Cultural Resources

Comment: The BLM should adopt the Western Heritage Alternative as its final Rawlins RMP, with the following amendments: Designation of the Overland Trail and Cherokee Trails should be pursued and their view sheds protected from further degradation.

Response: The Western Heritage Alternative was determined to not be a reasonable alternative because of the excessive acreage of No Surface Occupancy restriction proposed in the alternative. See updated text in the Rawlins FEIS, Section 2.3.3 Alternatives and Management Options Considered but Eliminated from Detailed Analysis—Western Heritage Alternative.

Comment: I believe we owe the Shoshone and Ute peoples respect and should protect their ancestral homelands. We owe Native Americans a great deal; it's time we thoroughly considered viable options.

Comment: Volume 1, Page 3-9. It is stated, “As of 2002, approximately 11 percent of the RMPPA (Resource Management Plan Planning Area) has been inventoried for cultural resources at the Class III (intensive) area. From this 11 percent inventory of the planning area, approximately 12,485 cultural resource sites have been documented.” If the same percentages (12,500 culturally relevant sites recorded in 11% of the planning area) are a reflection of the cultural resources for the area, then there may be over 125,000 culturally relevant sites in the area.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: I support preserving our national Great Divide. It is a great natural wilderness and historic area for many Native Americans. In no way should we destroy more of the great wilderness of the West just to support industrial needs. Are we to always sacrifice more and more of the cultural and historical representations of the US to just drill of oil and gas?

Comment: On page, 4-11, Vol. 1. BLM writes, ““These protective measures are required by law before the initiation of any surface disturbing and other disruptive activity.”” However, throughout all alternatives in the remaining pages, the cultural preservation aspects are residual or secondary to energy exploration. For example, page 4-251, Vol. 1. reads, ““Oil and gas development would cause the greatest amount of impact to cultural resources from construction of roads, pipelines, and well pads. Unanticipated subsurface discoveries (cultural resources discovered during project construction activities) occasionally occur from surface disturbing and disruptive actions. Unanticipated discoveries result in the irretrievable loss of some or occasionally all of the cultural resource involved. This potential loss would continue to occur under all the alternatives.”” What this means to me is the BLM plans to identify historic culturally significant data when the oil and gas developers run over it NOT before any surface disturbance occurs.

Response: The BLM manages public lands for balanced multiple use. The term “multiple use” as defined in FLPMA means “the management of the 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.” This direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP DEIS and FEIS reflect this provision. Not all areas would be open to all types of uses in the RMPPA. Additionally, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (see Summary of Changes between RMP/DEIS and FEIS at the beginning of each chapter in the FEIS). The RMP/DEIS and FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate

protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility, to ensure that resource values are protected while allowing for acceptable levels of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents.

Comment: We would like to see tribal governments represented in the RMP planning process. We would like to see tribal governments of the Eastern Shoshone, Northern Arapaho offered the opportunity to receive “Cooperating Agency status.” This status should also be offered to the Comanche, Crow, Shoshone Bannock, Ute Tribes, and any others whose ancestors also shared this very special land and today have an interest in preserving the past.

Comment: We don’t think the plan protects history tepee rings, petroglyphs, artifacts, and mysteries. We don’t think the tribes have enough say to protect artifacts left over from early days. Our elders know the medicines and sacred sites. We believe these places need protective rights. Don’t destroy the past. We need to protect it to protect our ways. We still love the earth as much as in the olden days. Include the tribes as cooperating agencies in the RMP.

Response: The Native American Tribal Governments were offered cooperating agency status on October 18, 2005. See updated text in the RMP/FEIS, Section 5.1.3, Native American Interests. Additionally, Rawlins BLM has been in contact with the appropriate Native American tribes throughout the RMP planning effort. A summary of those contacts is presented in the RMP FEIS, Section 5.1.3, Native American Interests.

Comment: I support the Eastern Shoshone and Northern Arapaho in calling for stronger collaboration and planning. The tribes and I are urging you, the BLM, to work with them to design protective strategies and standards for the differing types of sites and cultural resources found in the area. Your draft RMP offers limited detail of such standards. Nor does your draft RMP demonstrate active planning with the Wyoming tribes although reference to one letter and one phone call to the tribes is found on page 5-4, Vol. 1. Managing cultural resources on a case-by-case basis without standards agreed to by the tribes, would limit the ability to proactively manage high-potential areas and reduce impacts from, and conflicts with, other resource uses which is exactly what BLM is charged to do under federal law.

Comment: Finally, the plan for the monitoring of cultural resource management areas is inadequate as presented in the draft RMP. FRD and Native American populations feel an increase in the amount and description of monitoring is needed. Monitoring of cultural resource management during energy development phases is inadequate throughout the Draft RMP. Again, increased tribal involvement is necessary. Resources applied by BLM to monitor cultural resource management during the actual energy development in the planning area are not provided although the Wyoming tribes have called for that support.

Response: Protective measures for culturally sensitive Native American resources are established through consultation and coordination with the appropriate Native American tribes. Native American consultation is an ongoing process that began before the current RMP revision and will continue after the new RMP is completed. Consultation occurs throughout all of the levels of the BLM planning process (Section 1.6 of the RMP FEIS). See updated text in the RMP FEIS, Section 5.1.3, Native American Interests, and in the RMP FEIS, Appendix 5, Cultural Resources Management, regarding Native American consultation.

Comment: Recommendation: This statement should be revised to remove the words “disruptive activities”. Page 4-11, Second Paragraph: “Specifically, areas within one-quarter mile of cultural properties where the setting contributes to NRHP eligibility would be avoidance areas for all surface disturbing and other disruptive activities.” The requirement for avoidance of “disruptive activities” as defined in this document is unjustified. Because of the broad definition of disruptive activities, this provision would prohibit all activity within a quarter mile of the subject properties. Since, by definition, the disruptive activities are temporary in nature, there is no scientific justification to prohibit them to protect the setting.

Response: The term or concept of 'disruptive activities' as part of management actions and impact analysis considers the non-surface disturbing impacts of human activities conducted on the public lands, etc. Impacts to cultural resources may include audible impacts to the setting or feeling of an historic property. See updated text in the RMP FEIS – Appendix 5 Cultural Resource Management for a definition of adverse effects.

Comment: BLM has already identified 2700 cultural sites, with only 11 percent of the Great Divide inventoried as of 2002; almost 800 of these are eligible for designation on the National Register of Historic Places. The P.A. fails to address the fact that historically- and spiritually-important Native American sites and others important to archeologists and historic trails enthusiasts may be harmfully impacted at the very least, lost forever at worst.

Comment: Only 11% of the Red Desert has been inventoried for artifacts and culturally significant sites. Please take time to look closely at the other 89% before allowing modern development to erase our past.

Response: The protections mandated by law, regulation, and policy for cultural resources, supplemented by the management actions in the FEIS, will adequately protect significant and/or sensitive cultural resources in the Rawlins RMPPA. Please see the updated management actions in Table 2-1 of the RMP FEIS for additional management actions specific to protection of cultural resources. For a comprehensive description of the Rawlins cultural resource program, including BLM’s responsibilities on nonfederal lands, please see the updated text in the RMP FEIS, Appendix 5, Cultural Resources Management.

Comment: On page 4-11, Vol. 1, “Cultural resources that have been determined not eligible for the NRHP would be discharged from management and therefore would no longer be protected from future management actions.” In other words, cultural resources that do not meet the NRHP criteria would not be protected even through in the very next paragraph the document continues, “...thereby resulting in potential future data loss should new data recovery and analysis techniques be developed.”

Response: The DEIS states that “data recovery excavations would remove all or a portion of in situ cultural materials at sites, thereby resulting in potential future data loss should new data recovery and analysis techniques be developed.” Data recovery would not occur on a site that has been evaluated as not eligible for the National Register of Historic Places (NRHP), because all of the data that the site has to offer has been gathered through the recording process. Because the site does not have any further scientific, traditional, or public use, it is no longer protected from permitted activities. See updated text in the RMP FEIS, Section 4.3, Cultural Resources, and see the RMP FEIS, Appendix 5, Cultural Resource Management, for additional text regarding discovery situations and mitigation of data loss.

Comment: The 2 mile VRM Class II setting analysis may not necessarily be appropriate in all locations or for all project types. Due to the changing topography, vegetation, and coloration along the trails, some areas will actually need less than 2 mile setting consideration while others may require more. We recommend the DEIS include an explanation as to how the BLM will address the variable topography,

vegetation and coloration along the trails and manage for setting when it is determined to contribute to the eligibility of the site.

Comment: The ability to experience the historic trails as the emigrants did in the 1800s relies heavily on the pristine condition of the surrounding viewshed. When that viewshed is disrupted by visible modern-day encroachments, even if attempts are made to camouflage the facility, the historic nature of these trails is disturbed in a way that detracts enormously from the experience of exploring these resources. Therefore, we also ask that the full length of these historic trails receive at least Class II Visual Resource Management status.

Response: After careful consideration of the alternatives, BLM has changed its decision to define the area within 2 miles or the visual horizon of contributing segments of historic trails as visual resource management (VRM) Class II. The protections afforded to historic trails from the National Historic Preservation Act (NHPA) supplemented by the management actions in the FEIS will adequately protect the contributing setting of trails. Please see the updated management actions in Table 2-1 of the RMP FEIS for additional management actions specific to protection of the historic trails. For a description of specific BMPs that will be used in protecting the setting of NRHP eligible properties, please see updated text in the RMP FEIS, Appendix 5, Cultural Resources Management.

Comment: No encompassing inventories of the Cherokee Trail, Overland Trail, Rawlins to Fort Washakie Road, or Rawlins to Baggs Road have yet been conducted. In compliance with Section 106 of the National Historic Preservation Act, the BLM should immediately undertake a comprehensive inventory, before leases are let and property interests vest.

Comment: We, the undersigned groups, support block surveys in advance of leasing and request that BLM institute this common-sense measure in the Rawlins RMP. The fact that the BLM has failed to even consider an alternative that requires block surveys in advance of mineral leasing or other permitted actions that result in surface-disturbing activities violates NEPA's range of alternatives requirement.

Response: The BLM recognizes that the issuance of a lease is an undertaking as defined by the NHPA. However, issuance of a lease does not authorize ground disturbing activities. It is BLM policy to initiate consultation under the requirements of Section 106 of the NHPA for actions being projected in RMPs, including those associated with oil and gas development. This is the stage at which decisions are made concerning which areas are open or closed to leasing and what stipulations would be applied at lease issuance, and because of its scale, it is an appropriate stage to consult with both the affected tribes and State Historic Preservation Offices (SHPO). Because the lessee can expect to drill somewhere on a lease unless precluded by law, BLM includes a stipulation on all new leases that states it has not completed its NHPA and other consultation requirements, and the results of these consultations may affect potential development. BLM may require modification to exploration or development proposals to protect cultural properties or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized, or mitigated. This direction is outlined in WO IM 2005-003, Cultural Resources and Tribal Consultation for Fluid Minerals Leasing. Please see updated text in the RMP FEIS, Appendix 5, Cultural Resources Management, for additional discussion of the cultural resource program.

Comment: These historic trails should not be artificially segmented since their historic integrity is bound up in being part of one long, continuous migration corridor.

Comment: A five mile viewshed and no surface structures are essential to preserving the historic integrity of the trails. The emigrant trails represent an historic migration corridor. Proposed plans to divide them into "contributing" and "non-contributing" segments would destroy the historical integrity of the continuous trails.

Response: The BLM identifies segments of trails for purposes only of NRHP designation. The BLM has assigned the historic trails to the Public Use cultural use allocation (see Appendix 5 for definitions of cultural use allocations). To facilitate recreational and educational use of the trails, the entire corridor is afforded the same protection.

Comment: I am particularly concerned about protecting the historic emigrant trails. I believe that a five mile viewshed and no surface occupancy are essential to preserving the historic integrity of the trails. Using directional drilling, the oil and gas companies should be able to respect these limits without seriously hampering their activities.

Response: The protections afforded to historic trails from the NHPA supplemented by the management actions in the FEIS will adequately protect the integrity of the trails. Please see the updated text in Table 2-1 of the RMP FEIS for management actions specific to the historic trails. For a description of specific BMPs that will be used in protecting the setting of NRHP eligible properties, such as the trails, please see updated text in the RMP FEIS, Appendix 5, Cultural Resources Management.

Comment: The definition of boundaries for no surface occupancy, the visual horizon, and the VRM Class II management pre-supposes knowledge of the trail location. With respect to the Overland Trail, this is a reasonable assumption in most cases. However, much of the Cherokee Trail routes are poorly documented at the level needed to define these limits. A comprehensive mapping of the routes of the Cherokee Trails is needed before these management areas can be precisely defined.

Response: Mapping and ground-truthing the historic trails are an ongoing process that occurs either by necessity or as funding becomes available. There are several large-scale, comprehensive trails studies occurring in the RMPPA. Management actions such as no surface occupancy are based on the best data available and always reflect the most current data. Please see the updated text in Table 2-1 of the RMP FEIS for management objectives specific to the historic trails.

Comment: pp. 4-16; 4.3.2; Impacts under Alternative 1; Continuation of Existing Management, 2nd full paragraph, 1st sentence. What must be incorporated into this discussion is a reference about contributing and non-contributing segments of the trails. There are large segments of the trails that are non-contributory. In these cases, the 1/4 setback and the visual horizon should not apply. The contributory and non-contributory status should be referenced in the FEIS for trails.

Response: The protections afforded those areas within ¼ mile of the historic trails or the visual horizon, whichever is closer, are intended to protect not only the specific segments of the trail, but also the integrity of the resource as a whole. The BLM has assigned the historic trails to the Public Use cultural use allocation, see Appendix 5 in the RMP FEIS for definitions of cultural use allocations. To facilitate recreational and educational use of the trails, the entire corridor must be afforded the same protection.

Comment: Page 4-11, Second Paragraph: “Specifically, areas within one-quarter mile of cultural properties where the setting contributes to NRHP eligibility would be avoidance areas for all surface disturbing and other disruptive activities.” This restriction does not take into consideration the effect topography has on setting and as noted earlier fails to provide scientific support for such a restrictive measure. Recommendation: This statement should be re-written to indicate that the avoidance area would extend to one-quarter mile or the visual horizon, whichever is less.

Response: The intent of the stipulation is ¼ mile or the visual horizon, whichever is closer. Please see the updated language in Section 4.3, Cultural Resources, in the RMP FEIS.

Comment: P. 4-10, 11 Bottom of 10, Top of 11: “The analysis is based on the following assumptions: All authorizations for land and resource use will comply with the Wyoming Standard Mitigation Guidelines for Surface Disturbing Activities (Appendix 1) and cultural resource laws and regulations in Appendix 5.” This statement illustrates the arrogance of the BLM regarding cultural resources and attempts to influence the significance of the cultural resources, and imply that this is the only resource backed up by rule of law and regulations. All resources and operating procedures are backed up by some law or regulation, and those related to cultural are not the dominate law of all federal land law. Appendix 1 is a guideline, it is a compilation of past mitigation measures. Appendix 5 is an opinion of relevant issues for cultural resources. Neither of these documents can be mandated, nor should be assumed to control all authorizations for land and resource use. RECOMMENDATION: Eliminate the statement; it implies mandatory mitigation and compliance. If incorporated in the RMP it will imply authority and significance that does not exist.

Response: All authorizations for public land and resource use must comply with all relevant law, regulation, and policy. See updated text in the RMP/FEIS, Section 4.3, Cultural Resources—Methods of Analysis. See also the updated text in the RMP/FEIS, Appendix 5, Cultural Resource Management, for a discussion regarding the implementation of the cultural resource management law, regulation, and policy.

Comment: pp. 4-11; 4.3.1 Impacts to All Alternatives; 2nd paragraph. While BP is committed to the protection of cultural resources, a 1/4 mile setback in all cases seems too large and flexibility should be ensured. There are cases when a smaller radius would suffice. It is suggested this phrase should be added “...however, a smaller radius will be considered depending upon specific site conditions”

Response: This management action only applies to those properties where the integrity of setting contributes to the overall NRHP eligibility. This would not apply to those sites where setting is not an aspect of integrity, or where the integrity of setting does not contribute to the properties’ NRHP eligibility. Please see update text in the RMP FEIS, Section 4.3, Cultural Resources, regarding the impacts of this management action.

Comment: The plan does not appear to adequately address compliance with the National Historic and Cultural Preservation Act, and does not accurately summarize the concerns that have been expressed to the BLM by the local tribes in the area (e.g., letters and public comments provided to BLM by the members of the Eastern Shoshone and Northern Arapaho Tribes regarding the concern of disrupting sacred sites in the Red Desert). For example, the plan does not provide a careful documentation or maps of the Red Desert areas that are of particular concern to the tribes and other community members, and does not provide an approach to assure tribal involvement in the classification, identification, and coordination in the decision-making process regarding impacts to cultural resources that may be discovered on a case-by-case basis. EPA recommends that a more robust and specific plan to ensure compliance be developed. For example, a specific work plan or operating procedure, used to assess cultural and historical resources prior to ground-disturbing activities, be developed. A specific tribal community-relations plan to identify aspects such as the approach for involving the indigenous communities when oil and gas leasing is proposed; the specific qualifications and requirements that will be used for identifying cultural specialists, is also recommended.

Response: The BLM recognizes that the issuance of a lease is an undertaking as defined by the NHPA. However, issuance of a lease does not authorize ground disturbing activities. It is BLM policy to initiate consultation under the requirements of Section 106 of the NHPA for actions being projected in RMPs, including those associated with oil and gas. This is the stage at which decisions are made concerning which areas are open or closed to leasing and what stipulations would be applied at lease issuance, and because of its scale, it is an appropriate stage to consult with both the affected tribes and SHPOs. Because the lessee can expect to drill somewhere on a lease unless precluded by law, BLM includes a stipulation

on all new leases that states it has not completed its NHPA and other consultation requirements, and the results of these consultations may affect potential development. The BLM may require modification to exploration or development proposals to protect cultural properties or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized, or mitigated. This direction is outlined in WO IM 2005-003, Cultural Resources and Tribal Consultation for Fluid Minerals Leasing. Protective measures for culturally sensitive Native American resources are established through consultation and coordination with the appropriate Native American tribes. Native American consultation is an ongoing process that began before the current RMP revision and will continue after the new RMP is completed. See updated text in the RMP FEIS, Appendix 5, Cultural Resource Management, regarding Native American consultation.

Comment: As noted above, the BLM's multiple-use mandate requires managers to balance resource use and resource preservation. BLM Manual MS-8100.08.A.1.b. (2) States that land use plans should take into account the effects other land and resource uses may have on cultural resources. The manual notes that the need for additional information should be evaluated, responsibilities assigned, and schedules established at the outset of the planning process. See BLM Manual MS-8100.08.A.1.b.(2). In other words, not only must the BLM examine the effects of other land and resource uses on cultural resources, it must evaluate whether or not it possesses sufficient information to assess these potential resource conflicts. If the agency lacks enough information to make informed decisions, it must collect data according to a plan and schedule established at the outset of the planning process. The BLM should clearly spell out the process the agency will follow in order to comply with the procedures outlined by BLM Manual MS-8100.08.A.1.b.(2).

Response: BLM Manual 8100, the Foundations for Managing Cultural Resources, was updated in December 2004. The following excerpts are from the updated version: The manual directs BLM managers to assess the need for developing additional cultural resource information relative to the potential effects at the outset of developing land use plans (8100.09.A.1.b.[2]). BLM conducted an Analysis of the Management Situation prior to development of the Rawlins RMP to determine the adequacy of information and management actions in the Great Divide RMP. At that time, it was determined that BLM had adequate information to competently determine appropriate management actions. Please refer to Section 3.3 of the RMP FEIS for a discussion of cultural resources within the RMPPA.

Comment: we urge the BLM to expand their list of interested parties for consultation under Section 106. At a minimum, both the Northern Arapaho and Eastern Shoshone tribes should be granted this status. Likewise, other groups known to have an interest in historic and cultural resources – such as the Alliance for Historic Wyoming and the Oregon-California Trails Association – should be regularly consulted prior to any activities that could harm these nationally significant resources.

Response: The BLM maintains a list of known tribal contacts, which it consults with when the BLM determines consultation may be necessary as outlined in the 36 CFR 800 regulations. Additionally, BLM consults with other parties that have requested interested party status from the BLM.

Comment: Tribal involvement and the concern for culturally significant sited was left out of the issues and conflicts section of the RMP. Therefore, we feel these issues have not been addressed completely.

Response: Please see the text under Section 1.3.1, Planning Issues, Issue 8: Recreation, Cultural Resources, and Paleontological Resource Management, in the RMP FEIS for a discussion of issues regarding cultural and historical resources and Native American respected places.

Comment: Historic trails are another subject needing reconsideration in the RMP. I can assure you that the pioneers who created those trails would never consider foreclosing the discovery and use of critical resources because of the trails' mere existence. Trails have been used to stop seismic data acquisition of half-mile wide swaths. Every place rumored to have been traversed by a wagon has been designated a "historic trail." Seismic data is degraded for about one mile from missing data areas. A trail can cause a degraded data hiatus about 2.5 miles wide along the trail. The consequence is that exploration is effectively foreclosed in trail areas and long wide areas around them. What is the public benefit? Driving out into the hinterland on a dirt ranch road, you come to an intersection with another dirt ranch road. Both two-track dirt ranch roads look identical, the view is the same; but not to our Federal regulators. One of those dirt ranch roads is a "historic trail." All 50,000 miles of those dirt ranch roads are to be "protected." Supposedly, some tourist is going to drive out the one dirt ranch road to the other dirt ranch road and have a "visual trail experience." This experience allegedly could be spoiled by oil and gas activities. The BLM has stated on one occasion that the visual impact area extends "to infinity...as far as the eye can see." Visual impact areas should be limited to permanent facilities only, and should not include seismic data acquisition, roads, or pipelines.

Response: The BLM is required by law, regulation, and policy to identify and mitigate impacts to cultural resources from activities permitted on federally administered lands. An impact or "adverse effect" is anything that "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" (36 CFR Part 800.5[a][1]). Because seismic data acquisition, roads, and pipelines have the potential to cause adverse effects to historic properties such as historic trails, those impacts must be identified and mitigated appropriately. The most efficient and expeditious method of mitigation for seismic data acquisition is avoidance of the adverse effect all together. See updated text in the Rawlins FEIS, Appendix 5, Cultural Resource Management, for a more indepth discussion of this subject.

Comment: [Page 4-10/4-25, Cultural Resources.] Again our comments of August 6, 2004 were ignored. According to the DEIS, livestock can create impacts on cultural resources, wildlife can not. Livestock trample and wallow; wildlife do not. This portrays a bias that should not occur in this analysis. The Final EIS (FEIS) should document the impacts of livestock, but should also document the impacts of wildlife. The FEIS should also document the impacts of both livestock grazing management and wildlife management. As the DEIS notes in Chapter 3, livestock grazing management by BLM officials and grazing permittees is designed to reduce long-term impacts from grazing. Moreover, this area has historically encountered grazing and browsing animals for centuries. Impacts upon cultural resources that have resulted from such browsing and grazing have likewise occurred for centuries. The Final EIS needs to accurately depict all impacts, not just a select few. We'd like to add that the narrative for Alternative 4 says wildlife impacts on cultural resources are discussed under Alternative 1. They are not. Wildlife impacts are omitted.

Response: Livestock, wildlife, and wild horses all have the potential to impact cultural resources, especially in areas where animals concentrate, either naturally or in response to management actions such as fencing or water developments. In most cases, these impacts would be minimal. Please see updated text in the RMP FEIS, Section 4.3, Cultural Resources, for additional information regarding impacts from livestock, wildlife, and wild horses.

Comment: The primary issue we address here is the assertion by the draft that OHV use on two track roads would cause additional potential damage to cultural resources beyond that which would occur by other vehicles on the same routes. In the case of a motorcycle, only one track of the two would be used. In the case of ATV's, the weight displacement of the tires alone would diminish the impact in relation to full

size vehicles. In the case of a newly created trail, the impact in relation to a full size vehicle would be reduced 75% with a two-wheeled vehicle and 50% by a 4-wheeler at a minimum.

Response: The term off-highway vehicle (OHV), when used in the RMP FEIS, refers to any motorized vehicle that could travel over two-track roads. This not only includes all-terrain vehicles (ATV) and motorcycles but also full sized vehicles as well. All of these vehicles have the potential to impact cultural resources when used on two-track roads. Please see updated text in the RMP FEIS, Section 4.3, Cultural Resources, for additional information regarding impacts from OHV management.

Comment: 2-51 to 52 It is stated the area within 1/4 mile, or the visual horizon, whichever is closer, of the historic trails would be NSO for oil and gas leasing, and closed to other activities like locatable mineral entry. What is the basis for the view that this is sufficient to protect these resources? What about the effects of noise and smells, which may carry more than 1/4 mile? As noted above, the report by Erik Molvar shows that directional drilling can be, and is, used effectively and economically a distances far greater than 1/4 mile. Moreover, since much of the Overland Trail is located in railroad checkerboard country (page 3-90), perhaps much greater protections should be provided on BLM lands than a 1/4 mile buffer in order to protect as much of the trail as possible, given that in many instances BLM will not be able to regulate what occurs on the privately owned sections of land. BLM should at least consider alternatives to the protective zone on BLM lands that specifically recognize the lack of protection for the trail on most private lands.

Response: See updated text in the RMP/FEIS, Section 4.13.14, for a more indepth discussion regarding the impacts to the setting of the historic trails. See also the updated text in the RMP/FEIS, Appendix 5, Cultural Resource Management, regarding cultural resource management in the checkerboard land area.

Comment: Oregon-California Trails Association finds the “preferred alternative” (Alternative 4) to be reasonable subject to the comments: all developmental activities (and reclamation) should be subject to systematic and periodic monitoring. We are concerned that while agreements to permit development are reached, monitoring of the implementation is incomplete. The EIS (and the plan that follows) must be clear in its call for monitoring and timely reclamation.

Response: The RMP/FEIS provides for monitoring of all resources to meet the identified goals and objectives of the RMP/FEIS. The introductory text of Appendix 17 describes the process under which monitoring would be used to ensure that predicted impacts to environmental resources have not been exceeded and that mitigation measures are sufficient. Appendix 17 describes the various types of monitoring data that would be collected and evaluated during implementation of the Rawlins RMP as well as the various triggers that would require consideration for management adjustments. BLM will coordinate with other federal, state, and local land and resource management agencies, such as the Wyoming Game and Fish Department (WGFD), the United States Fish and Wildlife Service (USFWS), and the National Resources Conservation Service (NRCS), where appropriate when issues of state or federal authority are evident. See the revised Appendix 17, Monitoring and Evaluation, in the RMP/FEIS.

Comment: P. 4-186 Section 4.16.4 Impacts of Alternative 3: The term “5-mile visual corridor” appears. This is commonly called viewshed. This term is also associated with “visual horizon”. These terms are often used in and out of context with proponents and with BLM staff. Today, the 5 mile visual corridor/viewshed is not conceptual analysis-it is a common tool and desire of BLM staff to demand, especially in the checkerboard, and one that BLM management often tolerates even when directed not to use. **RECOMMENDATION:** Eliminate the reference to 5 mile visual corridor. There is no authority for this designation.

Response: The statement refers to the management actions in Table 2-1. Please refer to the updated text in the RMP FEIS for a discussion on the management of the setting for historic trails.

Comment: P. 4-251 Cultural: The first sentence indicates the viewshed concept, and maximum of 5 miles for historic trails. There is no mention of the 5 mile criteria in 4.3 Cultural, and there is little mention of the viewshed concept. The implementation, description, and impact of the viewshed concept must be disclosed earlier in the RMP. **RECOMMENDATION:** The DEIS fully disclose the management actions proposed for viewshed. Define the authority to reference a 5-mile viewshed.

Response: The Cumulative Impact Analysis Area for cultural resources includes both the physical location of the resources in the RMPPA and the setting for those resources when the setting contributes to the properties' NRHP eligibility. In some cases, the setting of a historic property may extend beyond the boundary of the RMPPA. Please see the modified text in Section 4.3, Cultural Resources, and in Section 4.20.3, Cumulative Impacts by Resource, for an updated discussion regarding visual impacts to setting for cultural resources.

Comment: The DEIS does not indicate what the BLMs desired future conditions are for the trail or what they anticipate the public use of historic trails will be. The document should address how this management plan for trails will tie into other management plans in field offices that manage the same trails. We recommend the BLM develop a plan for maintaining consistency among the field offices, but this is particularly important in managing the historic trails consistently when they cross field office boundaries.

Response: The historic trails are identified for Public Use in Section 3.3.4 of the RMP FEIS. To date, the Rawlins Field Office has received very little interest in public use of the historic trails, primarily because of the limited legal public access to the majority of the trails. The pursuit of land acquisitions for the preservation of cultural resources is identified under the Proposed Plan in the RMP FEIS. The RMP FEIS does not preclude BLM from developing a plan for Public Use of the trails if it becomes necessary in the future. See the updated management actions in Table 2-1 of the RMP FEIS regarding specific management for the historic trails.

Comment: Page 4-21, Sixth Paragraph: "The Historic Trails ACEC would be expanded to include the Rawlins to Baggs and Rawlins to Fort Washakie Freight Roads." This discussion is not consistent with Alternative 3 as described in Chapter 2. Chapter 2 (Alternative 3) discusses the creation of an ACEC for the subject freight roads and the Overland and Cherokee Historic Trails. Additionally, APC does not support an ACEC designation for either the historic trails or freight roads. APC believes ample authority exists under the National Historic Preservation Act to effectively manage those resource values. **Recommendation:** Clarify which alternative contains a proposal for a Historic Trails ACEC from which expansion would occur to include the subject freight roads.

Response: The historic trails, including the Overland Trail, Cherokee Trail, Rawlins to Baggs Road, and Rawlins to Fort Washakie Road, would be designated as an ACEC only under Alternative 3. Please see Table 2-1 of the RMP FEIS for specific management actions for the historic trails and the updated text in Section 4.3, Cultural Resources, and Section 4.13.14, Historic Trails Potential ACEC, for clarification of the impacts under each alternative.

Comment: Page 4-251, Seventh Paragraph: "Oil and gas development would cause the greatest amount of impact to cultural resources..." The document fails to provide any support for this statement and fails to take into account that mitigation measures are routinely imposed to protect cultural resources. **Recommendation:** Revise the document to delete the sentence or provide justification

Response: Please see Section 4.20.3 of the RMP FEIS for updated text regarding cumulative impacts to cultural resources.

Comment: Maps 2-49 and 2-50. The maps show 2 and 5 mile bands around the trails as VRM Class II and nearly everything else as Class III. Have studies been performed to determine there are no Class II areas within the extensive Class III areas? It is our understanding that VRM classifications are determined by analysis, not declaration.

Response: VRM management classes are based on the visual resource inventory as well as on management considerations for other uses. VRM management classes may differ from VRM inventory classes, on the basis of management priorities for land uses (H-1601-1, Appendix C, page 11, I. Visual Resources). Management priorities for much of the RMPPA call for multiple use, including mineral development, in preference to preservation of existing landscapes. Please see the updated VRM Management Class Map, Map 2-50.

Forest Management

Comment: I make a living, primarily, selling timber. I understand that reasoned natural resource management backed by sound science can be implemented to allow resource extraction without environmental degradation. I have also learned that there are forest stands that are better left untreated. I encourage you to avoid development of the Rawlins/Great Divide RM Area unless absolutely necessary.

Comment: Prescribed fire is a more favorable fuels reduction treatment, resulting in lower fire intensity (Stephens 1998). Because the result of fuels treatment thinning to reduce fire are at best unproven and counterproductive at worst, prescribed fire will be the preferred method of fuels reduction under this alternative. No fuels treatment of any sort will be allowed outside Residential-Forest Interface areas, defined under this Alternative as within ¼ mile of currently existing structures.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: An additional goal for fuels management should be to map the perimeter after each fire is completed and store that data for future analyses. [Page 2-22, Mgmt Goals, Fires and Fuels]

Response: BLM thanks you for your comment; however, the content of the comments is not within the scope of the Rawlins RMP planning process.

Comment: How did the BLM estimate wildland fire could burn up to 8,000 acres annually? [Page 4-180, Section: 4.15.4, Para 2]

Response: The estimates of wildland fire acres burned were based on the yearly average of the actual acres burned from 1980 to 2004. In addition, the estimate included projected additional acres resulting from an increase in the use of wildland fire for resource benefit.

Comment: Page 4-211 Forest Resource Management: 3rd paragraph, the first sentence infers BLM does not currently "effectively execute" timber sales. Comment: This discussion should be re-written to affirmatively restate this.

Response: Because of the current timber industry decline in the RMPPA, there has only been one successful timber sale in the RMPPA in the past 5 to 6 years. There is no demand or market for commercial timber in the RMPPA at the present time.

Comment: But legal mandates clearly require the BLM to manage for multiple uses and sustainable yields; there is no legal mandate for maximizing timber volume or minimizing extraction costs.

Response: There are 196,934 acres of forested lands in the RMPPA. BLM only proposes to manage for commercial forest products on a very small portion of that total acreage in the RMP/FEIS. BLM does not propose to maximize timber volume or minimize extraction cost in the RMP/FEIS. Management goals and objectives for BLM forestlands are found in the Forestry section of Table 2-1, Detailed Comparison of Alternatives. See the Forestry section of Table 2-1 in Chapter 2 of the RMP FEIS.

Comment: Clearcutting has been identified as one of two primary methods for timber harvesting in the Rawlins RMP. DEIS at A19-10. Apparently, this is the case for all four alternatives. BCA explicitly requested a moratorium on clearcutting in the new Rawlins RMP in our scoping comments and the Western Heritage Alternative. And yet there appears to be not a single alternative analyzed by BLM in which this eminently reasonable alternative for forestry was considered. We recommend the approach in

the Western Heritage Alternative for management of commercial forestry activities, but if this is not to be adopted, the timber management strategy in Alternative 3 is acceptable.

Response: In looking at the current forest conditions in the RFO, the proposed BLM alternatives and silvicultural practices are not proposed to mimic Mother Nature but are the BMPs for the forest based on its current health condition. Clear-cuts are proposed as a form of treatment to create fire breaks and reduce fire fuel loading in overstocked areas and lessen the chance of a catastrophic wildfire event—not as a means to sell commercial timber. Proposed clear-cut size under Alternative 1 and the Proposed Plan are only 10 acres maximum size and 20 acres maximum size for select cuts. For the current forest condition, these two silvicultural practices are the best in an effort to restore the forests to good health standings and control fire and insect and disease outbreak. This is not to say that all other silvicultural practices will be omitted as a possible treatment, but at this current time they are not feasible.

Comment: 3-16 Relative to fire management, BLM should consider the following. BLM states the “majority of human-caused fires have occurred along I-80 and railroad corridors....” Yet it does not appear these areas receive any special focus relative to fire management. “AMR” seems to be uniform throughout the RFO. Page 2-22. Yet it would seem that a great deal of fire suppression might be achieved by placing signs along I-80 warning people of dangers, working with state, local, and federal transportation officials, or working with the railroads. BLM also states “WUIs and other at-risk communities receive priority for hazardous fuel reduction treatments.” Yet a comparison Maps 1-2 and 2-1 shows most WUIs are in areas where the majority of the land is not public land. This raises the question as to whether hazardous fuels reductions treatments on public land will do much good, unless they are accompanied by significant action by private landowners. Has BLM determined that private landowners will commit to reducing fuels, will BLM actions be dependent on concomitant actions by private land owners? Why or why not? It would seem BLM fuels reductions treatments should only be undertaken as part of a package of efforts in these areas where there is a high percentage of private land ownership.

Response: The BLM agrees that the best way to prevent unwanted wildland fires is through education of the public. The Rawlins BLM has an active educational program, which includes billboards along the interstate and in adjacent interstate cities. The BLM also coordinates annually with Union Pacific and respective county fire agencies to address logistics and suppression strategies. However, the majority of the human-caused fires that occur along the I-80 and railroad corridor are caused by equipment or machinery and not by human negligence; signs will do little to prevent these types of fire. Some examples of these types of fire causes would be hot pieces of tire tread coming off of an 18-wheeler or a train “throwing” a hot brake shoe and igniting the grass. The wildland-urban interface (WUI) is self-defining. Naturally there is a significant portion of private land in WUI areas. BLM agrees that reducing risks to communities in WUI will require private landowner commitment. The document “A Collaborative Approach to Reducing Wildfire Risk to Communities and the Environment” further describes strategies and goals. BLM works with communities to develop Community Wildfire Protection Plans to mitigate risk to improvements and homes in WUI areas. The initiative to create these plans must come from the community; however, BLM can provide money to help implement projects on private lands through national fire plan funds.

Comment: Fire management would not have to be a problem relative to the stated areas of concern if fire management plans were developed and used as guidance when fires occur or prescribed fires were planned in sensitive areas. In many cases, fire would be of benefit to wildlife and wildlife habitat, if managed properly. [Page 4-29, Section 4.4.4, Para.3 & 4]

Response: In the BLM Fire Management Plan (2005)(Wyoming BLM state website), the possible use of wildland fire for resource benefit is listed as an appropriate management response (AMR) in all fire management units (FMU). In some FMUs, wildland fire use is the preferred AMR. This guiding

document addresses fuels and fire management in sensitive areas, including the use of wildland fire for resource benefit.

Comment: Fire management plans need to be developed in order to take advantage of wildland fires that could benefit wildlife resources. The Game and Fish needs to be asked to assist in formulating these plans so a framework is available from which the BLM can operate when a potentially beneficial wildland fire occurs. Without preplanning a decision on whether or not a fire should be allowed to burn and how much it should burn, cannot be made. [Page 4-27, Section 4.4.2, Para.6]

Response: In the BLM Fire Management Plan (2005), the possible use of wildland fire for resource benefit is listed as an AMR in all FMUs. In some FMUs, wildland fire use is the preferred AMR. There is a defined process for allowing wildland fire use. See Wyoming BLM Guidelines for Wildland Fire Use (2005) and the new Wildland Fire Implementation Plan (WFIP-2005). Based upon resource and fire objectives stated in both the FMP and WFIP, there are go/no-go criteria explicitly stated. The WGFD does not have jurisdiction for fire management on public lands but may provide input and suggestions.

Comment: The use of fire for resource benefit is highest in this alternative and generally down played in all others. Suggest BLM seriously propose a mix of burning and timber harvest in the preferred alternative using fire management planning to designate areas where prescribed and natural ignition fires would be used to manage timber in combination with conventional timber harvest. Increased fire emphasis would be particularly valuable in aspen retention. [Page 4-33, Section 4.5.4, Para.2]

Response: In the BLM Fire Management Plan (2005)(Wyoming BLM state website), the possible use of wildland fire for resource benefit is listed as an AMR in all FMUs. In some FMUs, wildland fire use is the preferred AMR. This guiding document addresses fuels and fire management in sensitive areas, including the use of wildland fire for resource benefit.

Comment: Suggest adopting alternative 3. Natural ignition fires found outside identified WUIs will generally, according to the RMPPA, be suppressed. This policy will tend to eliminate opportunities to take advantage of habitat improvements that would take place as a result of natural ignition fires, particularly if fire management plans had been developed for areas where fire would benefit habitat and wildlife. [Page 2-22, Mgmt Goals, Fires and Fuels]

Response: In the BLM Fire Management Plan (2005) (Wyoming BLM state website), the possible use of wildland fire for resource benefit is listed as an AMR in all FMUs. In some FMUs, wildland fire use is the preferred AMR.

Comment: Fire management would not have to be a problem relative to the stated areas of concern if fire management plans were developed and used as guidance when fires occur or prescribed fires were planned in sensitive areas. In many cases, fire would be of benefit to wildlife and wildlife habitat, if manage properly. [Page 4-30, Section, 4.4.5]

Response: In the BLM Fire Management Plan (2005) (Wyoming BLM state website), the possible use of wildland fire for resource benefit is listed as an AMR in all FMUs. In some FMUs, wildland fire use is the preferred AMR. This guiding document addresses fuels and fire management in sensitive areas, including the use of wildland fire for resource benefit.

Comment: Due to the devastating effects of clearcutting on ecosystem health, we conclude that that a moratorium on clearcutting is needed for the Great Divide planning area. The Western Heritage Alternative specifically places a moratorium on clearcutting throughout the area, and even-aged harvest methods that create clearcuts over the long term, such as seed-tree cuts and two-stage selection cuts, will

also be prohibited. Three-stage shelterwood cuts may in some cases be compatible with the ecological requirements of forest species, and will remain as the sole even-aged timber harvest option under the Western Heritage Alternative. Crompton (1994) found that shelterwood cuts had negative effects on interior forest birds and increased numbers of nest-parasite cowbirds, but had little effect on assemblages of small mammals. The use of three-stage shelterwood harvest should be implemented where their use is compatible with other multiple uses.

Response: In looking at the current forest conditions within the RFO, the proposed BLM alternatives and silvicultural practices are not proposed to mimic Mother Nature but are the BMPs for the forest based on its current health condition. Clear-cuts are proposed as a form of treatment to create fire breaks and reduce fire fuel loading in overstocked areas and lessen the chance of a catastrophic wildfire event—not as a means to sell commercial timber. Proposed clear-cut size under Alternative 1 and the Proposed Plan are only 10 acres maximum and 20 acres for select cuts. For the current forest condition these two silvicultural practices are the best in an effort to restore the forests to good health standings and control fire, insect, and disease outbreak. This is not to say that all other silvicultural practices will be omitted as a possible treatment, but at this current time they are not feasible. See Appendix 19, Vegetation Treatments, Forest Practices, and Range Improvements.

Comment: 2-22 It is stated that the use of wildland fire would be based on the Federal Wildland Fire Management Policy and the Southern Wyoming Fire Management Plan. What do these provide for? Have they been subject to evaluation in a NEPA document? They should be before becoming the basis for actions under the Rawlins RMP. Does BLM agree? Why or why not?

Response: The Federal Wildland Fire Management Policy (FMP) is a report and guideline that standardizes goals and objectives regarding fire management across all fire management agencies (<http://www.fs.fed.us/land/wdfire.htm>). The Southern Wyoming FMP (<http://web.wy.blm.gov/>) provides a framework for fire and fuels management for a single field office. The FMP is tiered off the Rawlins BLM RMP, which is covered under the NEPA. Individual fuels projects that significantly affect the landscape require an additional Environmental Assessment, which is covered under the NEPA. Basically, the two documents mentioned in the comment offer guidance as to how to manage the resource where individual projects require additional analyses that cannot occur at the land use plan scale (Rawlins Field Office 3.5 million acres). Environmental Assessments are part of the NEPA process and allow public comment.

Comment: It is crucial that the EIS establish an ecologically based fire restoration program so that fire can play its natural, and necessary, role in the RMP area. The EIS fails to do this except in a few areas.

Response: In the BLM FMP (2005) (Wyoming BLM state website), the possible use of wildland fire for resource benefit is listed as an AMR in all FMUs. In some FMUs, wildland fire use is the preferred AMR.

Comment: Access to Shirley Mountain, Elk Mountain, Arlington, and Little Medicine can be pursued independent of any issues tied to forest management. If access to these areas is important for reasons other than timber harvest, it should be sought after for those reasons. [Page 4-33 Section 4.5.3, Para.3 Para.5]

Response: The BLM proposes to manage forestlands not only for forest management activities but also for other multiple-use purposes as well in Alternative 2 in the RMP/FEIS. In other areas of the RMP/FEIS under this alternative, such as recreation, access to these areas for other management purposes would be pursued. Please review the Recreation and other sections of the FEIS under this alternative for further discussion.

Comment: It appears the BLM is setting a target of treating 16,400 acres per year. If it is possible to specify the acreage, shouldn't the RMP also identify where these treatments are to occur? If spread out, this rate of treatment may not have serious impacts, but if concentrated in only a portion of the RMPPA, impacts to wildlife could be high. [Page 4-184, Section: 4.15.1, Para 1]

Response: Under no Forest or Forest Health Management alternative in the RMP/DEIS or the RMP/FEIS does the BLM imply or state that there will be 16,400 acres of forest management actions and/or treatments in a single year's time. See Table 2-1 in Chapter 2 of the RMP/FEIS.

Comment: the EIS should address underlying assumptions or conditions that influence fire policy in a thorough and scientifically credible manner. The full costs and benefits of fire suppression and related vegetation management activities should be illuminated, particularly relative to other means of reducing fire hazards, such as allowing natural fires to burn or "prescribed" burning. Land exchanges and other similar methods for preventing encroachment of housing developments among otherwise remote BLM lands should be addressed. The relative importance of past fire suppression policy and drought in creating "unnatural" fuel accumulations and creating hazardous fire conditions should be thoroughly addressed and analyzed. Whether fuel accumulations are in fact "unnatural" should be fully explored. The EIS does not meet these needs.

Response: The RMP/FEIS directs ecological restoration to be accomplished through fire; however, more specific planning occurs in the Southern Wyoming FMP and individual Environmental Assessments, which are activity-planning and project decision-level analyses. Vegetation conditions and fuel loads are assessed on a landscape scale for all fuels projects through the Landscape Fire Regime/Condition Class Assessment developed cooperatively by academia, federal, and local governments, and other nongovernmental partners.

Comment: action will be triggered in timber stands when "Basal area growth does not meet timber type standards." DEIS at A17-4. This trigger point is a recipe for forest mismanagement, as forests become more diverse and ecologically important as they move from the mature stage (characterized by steady basal-area growth rates) to old-growth (characterized by declining basal-area growth rates) conditions. Thus, the BLM's monitoring and action-trigger plan would result in a depletion of old-growth forest and a conversion of forested areas into a homogeneous, biologically sterile tree farm.

Response: There are no "old growth" forests identified in the RMPPA, and the BLM does not list or identify any projects or treatments in the FEIS that would leave forest stands in the conditions of a homogeneous, biologically sterile tree farm.

Comment: Sustainable Timber Harvest Rotations Timber harvest on BLM lands must be sustainable, both in terms of sustaining availability of timber and sustaining natural ecosystems. Timber harvest rotations in current use in southeastern Wyoming are unsustainable over the long term, accelerate forest fragmentation, interfere with forest succession, and prevent the establishment of a natural pattern of patch dynamics (see below). Long rotations offer the advantages of reducing the cumulative effects of logging on forest ecosystems, allowing a reduction in road density, and increasing the quality of wood products (Franklin et al. 1997).

Response: The BLM does recognize the recovery time on the forest ecosystem within the RMPPA. The proposed harvests and treatments are based on that knowledge. Out of roughly 196,934 acres (of which 67,720 acres are WSAs) of forested land within the RMPPA roughly only 28,500 acres (which are all mainly located on the Shirley Mountain SRMA) are proposed for commercial forest management activities. The BLM proposes to manage for the improvement of forest health and forest stand restoration first and to apply commercial forest activities where feasible second. In doing so the proper stand

dynamics as well as rotation periods of Lodgepole pine (the dominate tree species within the RMPPA) are greatly taken into consideration. Because of the current forest health and condition of forest stands across the RMPPA a long-term rotation would potentially allow for a larger mortality rate because of insect and disease infestation and contribute to the massive build-up of hazardous fire fuels creating the potential for a catastrophic wildfire event. See Table 2-1 in Chapter 2, the Forest Resources section of Chapter 4 (Section 4.5), and the Forestry section of Appendix 19 in the RMP/FEIS.

Comment: Timber Removal and Post-Harvest Treatments Under this alternative, methods of timber removal should be closely examined, and minimum-impact timber removal practice will be used. Swank et al. (1989) noted that “road building, skidding and stacking logs, and some site preparation activities can produce major soil surface disturbance that greatly increases the erosion on a site.”

Response: The Forestry section of the FEIS also states that only temporary improvement of existing roads will be allowed for timber harvest and that no new roads will be constructed. The Forestry section also stated that skid trails and log decking sites will be located in areas of the least amount of impact and disturbance.

Comment: The BLM needs to recognize that mistaken assumptions have been made about the recovery times of timber-producing stands, and lengthen harvest rotations to reflect the natural rates of stand turnover under which the forest ecosystem has evolved.

Response: The BLM does recognize the recovery time on the forest ecosystem within the RMPPA. The proposed harvests and treatments are based on that knowledge. Out of roughly 196,934 acres (of which 67,720 acres are wilderness study areas [WSAs]) of forested land within the RMPPA, roughly only 28,500 acres (which are all mainly located on the Shirley Mountain SRMA) are proposed for commercial forest management activities. The BLM proposes to manage for the improvement of forest health and forest stand restoration first and to apply commercial forest activities where feasible, second. In doing so, the proper stand dynamics as well as rotation periods of Lodgepole pine (the dominate tree species within the RMPPA) are greatly taken into consideration. Because of the current forest health and condition of forest stands across the RMPPA, a long-term rotation would potentially allow for a larger mortality rate because of insect and disease infestation and contribute to the massive build-up of hazardous fire fuels creating the potential for a catastrophic wildfire event. See Table 2-1 in Chapter 2, the Forest Resources section of Chapter 4 (Section 4.5), and the Forestry section of Appendix 19 in the RMP FEIS.

Comment: For the Forest Health indicator, the BLM states that action will be triggered when “Disease, insect infestation, or encroachment of undesirable plant species threatens forest health.” DEIS at A17-4. While we have no argument with using non-native invasive species as a trigger for management change, indigenous diseases and insect outbreaks are a natural and ecologically important part of forest ecosystems, and should not be used as a trigger for mechanical forest treatments.

Response: The BLM does not propose to use insect and disease outbreaks as a trigger to do mechanical treatments. Mechanical treatments are only one of the treatment methods proposed, as there are several others. The BLM does understand that insect and disease are a part of the forest ecosystem but also at the same time does understand that insect and disease outbreaks of catastrophic proportions within a forest ecosystem are neither normal nor healthy for any forest stand, ecosystem, or community. The BLM proposes to manage for the improvement of forest health and forest stand restoration, first, and to apply commercial forest activities where feasible, second. The Healthy Forest Initiative and the Healthy Forest Restoration Act of 2003 give all federal agencies proper guidance and guidelines that are to be followed to work toward the restoration of unhealthy forest ecosystems to a healthy state. The field guide for the Healthy Forest Restoration Act of 2003 can be viewed at the following site: http://www.blm.gov/nhp/news/releases/pages/2004/pr040303_forests/field_guide.htm. Also see the

Silvicultural section of the Forestry Appendix 19 of the RMP FEIS for other proposed silvicultural methods.

Comment: APPENDIX 19—"The planned role of fire may need to be seriously curtailed. The combination of a major stress (fire) in combination with an environmental stress (drought) may have long-term adverse consequences." Comment: BLM needs to address the fire issue and how will it affect the overall 20-year plan.

Response: Drought is mentioned in the Southern Wyoming FMP as a factor that will affect the number and type of fuels projects.

Comment: We applaud BLM's efforts to incorporate natural fire and a let-burn policy in parts of the Great Divide planning area. However, the allotted areas designated for "Use of Wildland Fire" are too small. For instance, much of the area east of Highway 789 along the Atlantic Rim is not indeed checkerboard or intermixed private and public lands, and should be open to "Use of Wildland Fire." In addition, there are substantial portions of the northeastern Red Desert, on both sides of Highway 287, which are under block ownership by BLM and would be appropriate for "Use of Wildland Fire." In addition, blocked BLM lands in the Shirley Basin (and not only those between the highways) should be managed in a let-burn status for wildland fire. Finally, checkerboard lands lacking in structures should be open to "Use of Wildland Fire" in cooperation with landowners. It is entirely likely that a few or perhaps even many landowners recognize that natural fires are a long-term benefit not only to ecosystem health and wildlife but also to livestock grazing as well.

Response: In the BLM FMP (2005) (Wyoming BLM state website and Table 2-1, Fire and Fuels Management, in the FEIS), the possible use of wildland fire for resource benefit is listed as an AMR in all FMUs (Section 3.4.3, Use of Wildland Fire). In some FMUs, wildland fire use is the preferred AMR.

Comment: As an adjunct to both prescribed burns and natural fires, range management under the RMP should require a minimum of 2 years' rest from grazing following a burn. This provision is crucial to minimizing soil compaction, minimizing erosion and sedimentation, maximizing recruitment and recovery of native vegetation, and minimizing opportunities for the invasion of noxious weeds.

Response: While 2 years is the standard rest period post-fire or -burn, allowance must be made for longer or shorter periods. Determination of the length of rest is analyzed during the NEPA process for individual fires and burns. See Prescribed Fire Treatment Guidelines in Appendix 19, Vegetation Treatments, Forest Practices, and Range Improvements—Design of Vegetation Treatments.

Comment: Page 2-6: The draft EIS states that fuel treatments, including prescribed fire and mechanical, chemical, and biological treatments would be used for fuels reduction and to meet other multiple-use resource objectives. The RMP should clarify that these methods would be used to protect power lines in addition to other assets and resources within the RMPPA.

Response: Fuels treatments are used to protect a number of manmade improvements that are not explicitly stated in the RMP. If protection of power lines is identified as an issue in a particular area, one or more of these treatment methods may be initiated to mitigate the threat to this infrastructure. The RMP is a land use plan and cannot cover in detail all activity planning or project decision aspects of a fire management program. See the Southern Wyoming FMP (2005) for more detail.

Comment: Thus, "sanitation sales" that log off trees that are population centers for beetle or mistletoe would be prohibited because they interfere with the natural function of the ecosystem. Under this

Alternative, salvage logging would not be permitted because it destroys the architecture of post-disturbance landscapes.

Response: Consideration of an alternative that prohibits sanitation sales or salvage logging is not feasible under current BLM policy. The BLM Healthy Forest Initiative and the Healthy Forest Restoration Act of 2003 include goals to reduce the amount of hazardous fire fuel on the forest floor to lessen the chances or intensity of catastrophic wildfire events that may occur and not to allow these fuels to continually build up. Appendix 19, Vegetation Treatments, Forest Practices, and Range Improvements, in the RMP FEIS includes salvage logging as one of many management tools to meet the goals and objectives for management of healthy forests. **Salvage Cut:** A salvage cut is a harvesting and/or project treatment method used to remove dead, damaged, or susceptible trees after the occurrence of a natural event such as a wind blow-down and/or the outbreak or infestation of insect or disease to reduce hazardous fire fuel loading lessening the chances and/or intensity of catastrophic wildfire events. After a salvage cut, if regeneration is desired, it can be achieved through natural process or artificial means.

Comment: Cumulative effects on aspen management. A cumulatively significant effect that has not been discussed is the impact of current management practices (fire suppression, livestock over utilization, lack of active management) on regeneration and vigor of aspen stands throughout the RMPPA. Aspen clones are an exceptionally important habitat for wildlife. [Page 4-252, Section: Forest]

Response: Detailed discussion on current aspen condition, aspen treatments, and impacts on aspen from management actions in the Proposed Plan are included in the Vegetation section of the RMP FEIS.

Comment: In the past, federal agencies have acted in bad faith regarding its responsibility to manage timber harvest on the MBNF in a responsible, sustainable, and ecologically sound manner. It is therefore necessary for the revised Rawlins RMP to include ironclad standards to ensure that partial cuts are conducted in a manner that minimizes their ecological impacts.

Response: The BLM only manages a small amount (less than one-tenth of the total forested area within the RMPPA) of forested land located in the Medicine Bow National Forest (MBNF). The MBNF is primarily managed by the USFS.

Comment: Grazing of sheep should not be restricted near sage grouse leks and nesting areas. Existing sheep grazing that is occurring in proximity to sage grouse leks and nesting areas should continue. In many of these areas, if there has not been negative impact on sage grouse population, then sheep grazing should not be considered detrimental.

Response: The new definition of Disruptive Activities in the RMP FEIS no longer appears to eliminate or preclude livestock grazing. Livestock grazing activities that are determined to be disruptive to wildlife or other resources, through case-by-case analysis in consultation and coordination with livestock grazing permittees, would be evaluated for management options to reduce resource conflicts.

Lands and Realty

Comment: P. 4-37, 40 Sections 4.6.2, 4.6.5 Lands and Realty: The impact of adding VRM Class II to the historic trails is illustrated with 359,610 acres under Alternative I, and 590,530 acres under Alternative 4, the Preferred Alternative. The 160,000 additional acres is assumed to be the 4 mile corridor along historic trails. This acreage would not include the private land in the checkerboard that BLM would like to apply VRM Class II to. Summary-Implies there would be little impact to ROW authorization, this is a gross misstatement as a significant geographic area is now added to avoid, or face extraordinary mitigation. This will force ROWs away from private land and potentially off the checkerboard. Net effect would be loss of revenue to private land owners. RECOMMENDATION: Eliminate the management action to designate historic trail corridors as VRM Class II. There is no specific authority for this designation to be applied to a historic trail or cultural site.

Response: After careful consideration of the alternatives, the BLM has changed its decision to define the area within 2 miles or the visual horizon of contributing segments of historic trails as VRM Class II. The protections afforded to historic trails from the NHPA supplemented by the management actions in the RMP FEIS would adequately protect the contributing setting of trails. For a description of specific BMPs that would be used in protecting the setting of NRHP-eligible properties, see the updated text in the RMP/FEIS, Appendix 5, Cultural Resources Management.

Comment: Page 4-3: PacifiCorp's existing ROW easements, authorizations, or rights must be recognized and maintained. PacifiCorp will work with the BLM to ensure these rights are maintained.

Comment: RSGA supports Alternative 1, the No Action Alternative. The Preferred Alternative will add too much control and create conflict with the private land owners in the checkerboard.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: BLM should modify the Utility Avoidance Area Maps and designate utility corridors that run north/south in the southwestern portion of the RMPPA. BLM should designate existing linear facilities such as roads, pipelines, power lines, etc., as utility corridors for existing and future facilities. Please see Figure 1.

Comment: Page 2-7: The draft EIS states that each transportation system and utility ROW would be located adjacent to existing facilities, when possible. PacifiCorp recommends that the EIS and final RMP include guidelines for ROW clearance. For transmission lines we recommend a ROW width of 100 feet; for distribution lines we recommend a ROW width of 50 feet.

Response: The designated corridors were established along existing utility disturbances and were designed to avoid sensitive areas. See Map 2-2, Designated Right-of-Way Corridors, and Map 2-33, Utility/Transportation Systems Avoidance Areas, in regards to the designated corridors and avoidance areas in the RMP FEIS. See Table 2-1, Detailed Comparison of Alternatives, Lands and Realty, Management Actions Common to All Alternatives, for a discussion of the utility corridor designations and avoidance areas. See Appendix 34, Designated ROW Corridor Criteria, for a discussion of how new proposals are addressed in existing utility corridors.

Comment: We want to note two specific issues. First, as noted above, many of the lands deemed potentially suitable for disposal are located near towns. Maps 2-26 to 29. To what extent did the interests of towns in acquiring public lands drive the determination of lands available for disposal? It is implied that the expansion of communities played an important role. 3-21, 4-40. But to what extent did

determinations that lands are “difficult or uneconomical to manage,” or “lands that will serve important public objectives” drive these determinations? Where is this documented? What was the relative priority among these criteria? Second, on page 4-37 it is noted that mineral leasing and development may limit options for land tenure adjustments. This is an extremely important issue and should be addressed in detail. In particular, if certain oil and gas companies own large tracts of private lands in the checkerboard, as Andarko does in the Atlantic Rim area; this could present an opportunity for exchanges that are a “win-win” situation for both the company and BLM. This needs to at least be explored.

Response: Many factors determine which lands would be identified for disposal. These factors include manageability, landownership pattern, natural resources, access, and economics. Prior to any land tenure adjustment, a feasibility report and an NEPA document are completed. The feasibility report determines if the factors considered warrant a land tenure adjustment. See Section 3.6, Lands and Realty, of the RMP/FEIS for a discussion of the lands and realty program. Also see the RMP/FEIS Appendix 6, Land Exchange, Acquisition, and Disposal Criteria, for a discussion of the land tenure adjustment process.

Comment: The Final RMP must be expanded to highlight and include specific discussion on the agency authority for management actions, within the checkerboard area. Clarify how recommended management practices will be implemented so to not directly or indirectly impact on private property rights. Specific items to be addressed are wildlife, cultural, historic trails, visual, and wild horses. Authority of the agency to assume access across private lands must be clarified and highlighted.

Comment: Further I urge the BLM to consider a wider range of options where consolidation of checkerboard could aid in the solution of some of the most significant environmental issues in the field office.

Response: The BLM must comply with law, regulation, and policy regardless of land ownership or land pattern (e.g., checkerboard land pattern). For example, the Endangered Species Act (ESA) and the NHPA require federal agencies to identify and mitigate potential impacts to threatened and endangered wildlife and plant species and significant cultural resources, regardless of land ownership or land pattern. The BLM cannot make management decisions on non-federally administered lands. However, the BLM cannot legally authorize an action that is not in compliance with these laws and their implementing regulations. If a project could not occur on non-federally administered lands without federal involvement, the federal agency is required to gather the information necessary to determine if adverse effects would occur for the entire project. For a more detailed discussion of the federal responsibilities under the ESA, see the BLM Rawlins RMP/EIS Biological Assessment (2005). For a more detailed discussion of the federal responsibilities under the NHPA, see the updated text in the RMP FEIS, Appendix 5, Cultural Resource Management, BLM Jurisdiction on Privately Owned and/or Split Estate Lands.

Comment: Disposal of federal lands under the new Rawlins RMP should occur through exchange (not outright sale), under the principle of no net loss of federal lands. It is conceivable that federal lands along the margins of town might be exchanged; acquisitions from these exchanges should be prioritized in the following order: (1) acquisition of inholdings and private checkerboard lands within Wilderness Study Areas and citizens' proposed wilderness, particularly the Haystacks unit of Adobe Town; (2) acquisition of lands containing crucial winter range, lands within 2 miles of sage grouse leks, active prairie dog complexes and colonies, raptor nests sites, mountain plover nesting concentration areas, wetlands, and other sensitive wildlife habitats; (3) lands within an ACEC; (4) acquisition of lands which improve public access to their lands. The overarching philosophy behind land exchanges should be to consolidate public lands, particularly in checkerboard areas, to improve public access and enhance manageability in the context of federal conservation mandates.

Response: The RFO staff considers land tenure adjustments on a case-by-case basis, as they are proposed. This includes proposals for exchanges, sales, recreation and public purpose (R&PP) leases, desert land entries, and acquisitions. Land acquisitions should create more logical and efficient land ownership patterns. See Section 3.6, Lands and Realty, of the RMP FEIS for a discussion of the lands and realty program. Also see the RMP FEIS, Appendix 6, Land Exchange, Acquisition, and Disposal Criteria, for a discussion of the land tenure adjustment process.

Comment: we seek a moratorium on all road-building within 3 miles of a lek site.

Response: Surface disturbing and disruptive activities would be prohibited within ¼ mile of a known lek or the perimeter of an occupied greater sage-grouse or Sharp tailed-grouse lek. A timing restriction would be implemented on surface disturbing activities within 2 miles of a lek. See Table 2-1, Wildlife and Fisheries, of the RMP/FEIS for a description of management actions specific to protection of grouse leks. See Section 4.19.4 of the RMP/FEIS for a discussion of the impacts from the lands and realty program.

Comment: Why is the BLM proposing to dispose of NW sec 17, T15N, R92W north of Blue Gap? Almost the entire township around this tract is publicly owned. We recommend this tract be retained in public ownership. A7-4

Response: Section 17, T15N, R92W, was identified for disposal for the Mexican Flats Salt Water Disposal Site under the Great Divide Resource Area RMP. See Table A7-9 for a list of lands identified for disposal under the Proposed Plan in the RMP FEIS.

Comment: The DEIS proposes a number of special management areas, or Areas of Critical Environmental Concern, that cannot be feasibly managed as such since they are located in the checkerboard area. Mixed surface ownership precludes special management of the area as a whole. Designating checkerboard areas as special management areas effectively condemns private inholdings if the BLM were to attempt to extend its authority to these lands. The DEIS lacks a takings analysis with respect to the potential condemnation.

Response: The BLM has determined that special management is not effective in these areas because of the checkerboard land pattern. As special management is not practical, no special designation for the areas is warranted. The management actions in Table 2-1 of the FEIS adequately protect these areas and the values for which they were originally proposed as ACECs. Many of these areas are designated as wildlife habitat management areas in the Proposed Plan of the RMP FEIS and are managed under existing memoranda of agreement between the stakeholders. There will be no takings under the Proposed Plan.

Comment: Page 4-35, Lands and Realty: The impacts of wind energy development on other resources are not addressed. Recommendation: BLM must analyze in the Lands and Realty section the impacts that permitting wind energy projects would have on the development of oil and gas. For instance, BLM must identify how valid existing rights would be impacted if a wind energy project were issued over existing oil and gas leases. How will mineral lease development be managed on lands underlying wind farms that have been or may be permitted under a right of way? What are the cumulative impacts (visual, wildlife etc.) from wind farm projects and the potential impact on the ability to develop oil and gas resources on adjacent lands?

Response: The BLM manages public lands for balanced multiple use. The term “multiple use” as defined in Federal Land Policy and Management Act of 1976 (FLPMA) means “the management of the 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.” This direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP/DEIS and FEIS reflect this provision. Not all

areas would be open to all types of uses in the RMPPA. Additionally, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (Summary of Changes between RMP DEIS and FEIS at the beginning of each chapter in the FEIS). The RMP DEIS and FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure that resource values are protected while allowing for acceptable levels of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents.

Comment: Both NEPA and FLPMA, of course, required BLM to fully consider options to addressing significant environmental concerns. BLM has failed to do that. It appears BLM ran its lands through a screening process and identified lands possibly suitable for disposal, acquisition, or disposal. Appendix 7. Maps 2-22 to 29. But what this process involved, what its criteria were, etc. is not clear or specified. The Summary does not illuminate how these determinations were made. ES-5. The Description of Alternatives provides no illumination. 2-7 to 8, 2-24. Ditto the Affected Environment Chapter, although there is a statement that 66,000 acres considered for disposal were reduced to 46,230 acres due to access issues, with no information provide regarding what those issues are, or why having access to a parcel per se should remove it from consideration for consolidation actions. 3-21 to 23. Perhaps what lands would be available for tenure adjustments was made pursuant to the criteria shown in Appendix 6, but that seems unlikely; these criteria seem to be applicable to determining if particular parcels will be transferred or not. So, we are left with the unexplained, limited listings shown in Appendix 7 and Maps 22-29 regarding what lands and how much land will be considered for disposal. That fails to meet the obligations of NEPA and FLPMA.

Response: The lands identified for disposal in the RMP FEIS, Appendix 7, Lands Considered for Disposal, Withdrawal, and Acquisition, were established based on the land exchange, acquisition, and disposal criteria outlined in the RMP FEIS, Appendix 6.

Comment: 2-25 It is stated that communication site locations would be evaluated on a case by-case basis. Some more firm guidance is needed. BLM should be able to clearly eliminate some areas from consideration now, and provide an indication of what conditions would apply in any case, and what considerations would apply before approval would be granted. These “communication sites” (cell phone towers) are rapidly becoming a prominent eye sore throughout the west. BLM should address this issue more thoroughly in the final EIS. For example, Class I Areas should be off limits to these activities and Class II areas should be off limits absent special provisions. At a minimum, BLM should recognize that it has obligations under the Migratory Bird Treaty Act to prevent the taking of birds, and these towers can be death traps for migrating birds. BLM should make specific provision for how it will comply with the Migratory Bird Treaty Act with respect to “communication sites.”

Response: Table 2-1, Detailed Comparison of Alternatives, Lands and Realty, Communication Sites Management Actions, also states that areas with important resource values would be avoided where possible. This management action has been updated in the RMP FEIS to include reference to Maps 2-30 through 2-33, Utility/Transportation Systems Avoidance Areas. Any new communication site proposals would be evaluated on a case-by-case basis. The limitations and restrictions placed on development of communication sites would depend on the locations of sensitive resources and the potential environmental

impacts to those resources from the proposals. Stipulations are attached to communication site leases to protect the sensitive resources. Communication sites would not be allowed in No Surface Occupancy (NSO) areas.

Comment: Page 2-25, Utility/ Transportation Systems Management Actions; Table 2-5, Pages 4-192, 4-200: Alternatives 1 and 4 indicate that if it becomes necessary to place facilities within avoidance areas, the effects would be “intensively managed.” PacifiCorp supports that BLM will allow for the placement of utility and energy facilities, transportation systems and communication sites within avoidance areas. However, the Surface Disturbance Mitigation Guidelines outlined in Appendix 1 do not explain how BLM will intensively manage these areas nor do they provide any guidance on developing plans that will be acceptable to a surface management agency (SMA). BLM should develop and issue clear objectives and guidelines for minimizing surface disturbances near existing facilities with adequate opportunity for stakeholder input.

Response: BLM will consider placement of facilities within avoidance areas on a case-by-case basis. See the definition of “intensive management” in the RMP FEIS Glossary for a discussion of the types of mitigation measures that would be available in these situations.

Comment: There is some degree of apprehension on the part of local landowners that federal emphasis on wind energy development will pre-empt or preclude development of wind power on private land. To the extent that private landowners wish to pursue wind energy development on private property, we encourage the BLM to defer to private landowners in the priority of wind development siting; private lands do not have the same public access and therefore multiple-use values.

Response: Within the RMPPA, BLM will make no decisions on nonfederal land surface or mineral estate, on federal lands administered by other federal agencies, or the federal mineral estate underlying federal lands administered by other federal agencies; see Section 4.1, Introduction, Methods and Assumptions, of the RMP FEIS for assumptions for the analysis.

Comment: Under the preferred alternative, the DEIS proposes to limit wind energy activities within important scenic areas, i.e. Class I and II visual resources areas. There does not appear to be an assessment of the impact of this proposed decision on future wind energy development opportunities in the planning area. We know from past proposals that portions of the planning area are rich in wind energy development opportunities. We recommend that an assessment be conducted before this allocation is made so that we can balance the tradeoffs between protection of scenic areas and development of this clean and renewable source of energy.

Response: Any new wind energy development proposal would be evaluated on a case-by-case basis. The limitations and restrictions placed on development of wind energy projects or proposals would depend on the locations of sensitive resources and the potential environmental impacts to those resources from the proposals. See Section 4.6, Lands and Realty, of the RMP FEIS for a discussion of impacts to the lands and realty program from other resources.

Comment: I further ask that any leasing within citizen proposed wilderness, not limited to the haystacks, be addressed in a more thorough NEPA process and public engagement than is usually employed. I think that the BLM would be not be fulfilling it's obligation for public participation if attempts are not made to communicate about these sensitive wildlands with concerned citizen's, like those supportive of the WHA. Will the BLM make a special effort to alert any of the thousands that support the creation or addition of the lands proposed for ACECs and WSAs in the WHA about lease sales, EIS processes, or APDs proposed for such areas? Why or why not?

Response: As required by the planning regulations, BLM provides an opportunity for the public to provide input into the planning process: scoping, input of local, state, and other Federal Government co-operating agencies during development of both the DEIS and FEIS, the 90-day comment period following release of the RMP/DEIS, the 30-day protest period following release of the RMP FEIS, and the 60-day Governor's consistency review of the proposed plan. All these comment opportunities provide the public with an avenue to input thoughts, ideas, and issues into the BLM planning process. All comments are considered regardless of the length of the letter, residence, or affiliation of the commenter, etc. Plan implementation decisions also are open to review by interested and affected parties during site-specific project-level planning and analysis. The BLM has a process in place for notification of the public concerning upcoming oil and gas lease sales. To suggest a change to that process would be beyond the scope of this document.

Comment: BLM will simply passively stand by while proposals are made to improve the land ownership pattern in the checkerboard. ES-5, 2-24, A7-11. This is unacceptable. BLM must actively seek to accomplish land tenure adjustments that it defines as having priority. It should approach land owners, explore options with them, seek to make deals. That is the way to move toward rationalization of the land ownership pattern in the checkerboard, not by waiting for others to do things. At a minimum, BLM needed to consider options for making overtures relative to making land tenure adjustments, such as the use of an availability of Land and Water Conservation Fund monies, or other sources of funding, that could help fund tenure adjustments.

Response: The RFO staff considers land tenure adjustments on a case-by-case basis, as they are proposed. This includes proposals for exchanges, sales, R&PP leases, desert land entries, and acquisitions. Land acquisitions should create more logical and efficient land ownership patterns. See Section 3.6, Lands and Realty, of the RMP/FEIS for a discussion of the lands and realty program. Also see the RMP/FEIS, Appendix 6, Land Exchange, Acquisition, and Disposal Criteria, for a discussion of the land tenure adjustment process.

Comment: P. 2-25 Lands and Realty-Wind Resources Management Actions: Alternative 4 illustrates the problem with implementation of new management actions for historic trails. A significant area of potential wind farm sites would be prohibited. Map 2-33 does not define the fact that this management action does not apply to private land in the checkerboard, or private land adjacent to Public Land. Fact is, like wind farms on Cumberland Divide near Evanston, WY, the agency will have no direct authority to stop wind farm structures on private land, other than indirect control to not issue supporting rights-of-way. Map 2-33 is grossly misleading to imply agency authority to zone geographic areas that include private land. Recommendation: Revise Map 2-33 to show private land does not include avoidance areas.

Response: Planning decisions in the RMP apply only to BLM-administered public lands in the RMPPA. See Section 4.1, Introduction: Methods and Assumptions, in the RMP FEIS for a discussion of BLM responsibilities in the planning effort. Mapping protocol for the RMP DEIS and FEIS required that the checkerboard land pattern not be displayed on most maps because of the blurring of decision boundaries and mapping units.

Comment: BLM should have considered a wide range of options to deal with these extremely significant environmental issues on the RFO. [land acquisition] For example, the option for legislative resolution to the checkerboard problem could have been considered and explored, at least for smaller areas with specific values, if not for the checkerboard as a whole. A number of such legislative "fixes" have been implemented in Utah in the last several years, although those admittedly involved exchanges of state and federal lands, not private lands. But even if only state and federal lands were exchanged, there would be some improvement in the land ownership pattern. [See examples of what BLM could have done] BLM could have and should have explored and sought to implement options for reconciling these problems in

those particular areas. Instead, all we are presented with-with no analysis-are statements that land acquisition to block up the checkerboard will be considered, and that 46,000 acres of land will be “available for consideration for disposal.” This fails to meet the obligations of NEPA and FLPMA given the dominant nature of the problems created by the checkerboard and BLM's recognition of those problems.

Response: The RFO staff considers land tenure adjustments on a case-by-case basis, as they are proposed. This includes proposals for exchanges, sales, R&PP leases, desert land entries, and acquisitions. See Section 3.6, Lands and Realty, of the RMP/FEIS for a discussion of the lands and realty program. Also see the RMP/FEIS, Appendix 6, Land Exchange, Acquisition, and Disposal Criteria, for a discussion of the land tenure adjustment process. The option of a legislative solution to the checkerboard land ownership pattern is beyond the scope of the RMP process.

Comment: Maps 2-30 through 2-33; ES-6, 2-7, 4-36, 4-192: Utility/Transportation systems avoidance areas depicted on Maps 2-30 through 2-33 seem to contradict the intent of transportation avoidance areas. Alternative 4 (BLM's Proposed Plan) shows a large amount of Wyoming's transportation network within these avoidance areas. Table 2-5 lists all avoidance areas for Utility/Transportation and Wind Energy, including all lands within VRM I, VRM II, SMAs, ACECs, 100 year flood plains, 25% or greater slopes, leks, NNLs, WHMA, SRMA, Historic Trails and recreation sites. The draft EIS states on numerous pages, such as ES-6, 2-7, 4-36, 4-192 etc. that all non-WSA lands and portions of some SMA land are open to development of utility infrastructure. BLM should clarify the apparent conflict between its depiction of Utility Avoidance areas on Maps 2-30 through 2-33 and the text of the draft EIS. The only lands that should be included within the Utility/Transportation avoidance areas are WSAs, VRM Class I, and portions of several SMAs.

Response: Utility/transportation and wind energy developments would be discouraged in avoidance areas, but not precluded. See the RMP/FEIS for rewording under the management actions and also the Glossary for the definitions of Avoidance Areas and No Surface Occupancy for the difference in management between these two classifications.

Livestock Grazing

Comment: ES-6 Livestock Grazing. “BLM would work closely with operators to determine the most appropriate methods to achieve Standards and desired plant community.” The definition of Standard is as follows: STANDARD. A description of the physical and biological conditions or degree of function required for healthy, sustainable lands (e.g., land health standards). Who determines the description of conditions required for healthy, sustainable lands?

Comment: We would like BLM to restore lands where overgrazing has led to “poor” or “fair” condition as documented by BLM. Grazing pressure on those areas should be reduced by adjusting numbers or season of use. Riparian habitat should be restored by excluding grazing, if necessary.

Response: Appropriate actions are implemented on allotments that are not in compliance with the Wyoming Standards for Healthy Rangelands, as described in Section 2.4, Livestock Grazing. In Table 2-1 under Management Actions, it was added that recommendations of the Wyoming Bighorn/Domestic Sheep Interaction Working Group would also be considered in regard to management of domestic sheep and goats. Such measures may include, but are not limited to, the following: reduction of permitted animal unit months (AUMs), modified turnout dates, development of range improvements, shorter grazing periods, growing season rest, the use of riparian pastures and/or exclosures, implementation of forage utilization levels, and the use of livestock conversions.

Comment: I look forward to the challenge of working toward the goals of DPC and DFC, provided that those goals are in fact achievable with respect to the length of time necessary, site potential, and that the tools (fire, mechanical, grazing, etc.) be made available to alter habitats that are “frozen” in decadence or late seral stages, or are otherwise difficult to move toward a desired end. Also, in areas where wildlife populations are over objective or are concentrated, livestock should not be held responsible for non-attainment of goals. Climatic conditions, as always, should be weighed as well, in conjunction with sound, science-based monitoring.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: On pg. 4-45, we do not agree with the narrative at the top of this page that states that livestock is the multiple use that will be adjusted when “conflicts” between livestock & wildlife occur. Livestock is just as legitimate a multiple use as is wildlife, and it is our comment that wildlife should NOT receive the absolute priority over livestock conveyed in this draft. Each situation that arises deserves to be evaluated on its individual merits with respect to whether or not changes to one or more existing multiple use is justified.

Response: Section 4.7.1, Impacts Common to All Alternatives, in the RMP/FEIS states that livestock management adjustments would be considered when wildlife and livestock conflicts arise; not that adjustments would be made. The term “multiple use” as defined in FLPMA means “the management of the 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.” This direction indicates that not all uses need to be accommodated in all areas.

Comment: The Wyoming State-wide Bighorn/Domestic Sheep Interaction Working Group set its goal as “maintain healthy bighorn sheep populations while sustaining an economically viable healthy domestic sheep industry in Wyoming.” The mandatory nine-mile buffer may help maintain healthy bighorn sheep populations, but it is likely to critically damage the bighorn sheep industry in the planning area. The Final EIS and Revised RMP need to (1) recognize the bighorn cooperative review, non-emphasis, and non-

management areas in the Rawlins planning area, (2) utilize the findings and recommendations of the Final Report and Recommendations from the Wyoming State-wide Bighorn/Domestic Sheep Interaction Working Group, and, (3) for those reasons, delete all references to a nine-mile buffer between bighorn and domestic sheep.

Response: The 9-mile buffer is the current BLM guidance found in Washington Office Instruction Memorandum #92-264. In Table 2-1 under Management Actions, it was added that recommendations of the Wyoming Bighorn/Domestic Sheep Interaction Working Group would also be considered in regard to management of domestic sheep and goats.

Comment: With only 2% of the nation's beef cattle herd grazing on public lands, there can be no rational economic defense of grazing on this land,

Comment: It is critical that the BLM REMOVE CATTLE GRAZING ON ANY AND ALL PUBLIC RANGE LANDS

Response: In FLPMA, Congress declared that it is the policy of the United States that BLM should manage the public lands in a manner that will provide "food and habitat for fish and wildlife and domestic animals." In addition, the elimination of livestock grazing was analyzed in Section 2.3.3, Alternatives and Management Options Considered But Eliminated From Detailed Analysis. The Taylor Grazing Act of 1934 is discussed in the RMP FEIS in Section 1.4, Land Use and Natural Resources Management, which provides authorization to the Secretary of the Interior to regulate and administer grazing use of all public lands.

Comment: A preferred alternative for Livestock Grazing states: Livestock grazing use on public lands in vacant grazing allotments is a discretionary action. The following areas, as identified in the SMA section, would be recognized as vacant allotments and would be grazed on a basis appropriate for that area. •Chain Lakes •Pennock •High Savery Allotments may be added or removed from this list as the situation warrants. We recommend deleting the first and third paragraphs and retaining the second paragraph, as rewritten.

Response: Text that referenced "vacant allotments" has been updated in the RMP FEIS. Certain allotments are managed under a memorandum of understanding (MOU), because the base property owners (e.g., WGFD) are not in the livestock business and have other resource values that determine management objectives. Although these allotments would not be withdrawn from livestock use, management of livestock grazing would be used as a tool to reach resource objectives other than livestock grazing.

Comment: There should be no net loss of AUMs under this plan. A recapture of lost sheep AUMs from conversions from sheep to cattle should be considered where it is appropriate.

Response: Changes in AUMs would be determined on an allotment basis and would be developed in conjunction with permittees, interested parties, and BLM on the basis of onsite specific analysis. AUM levels fluctuate up or down for various reasons. Some examples of these are livestock conversions, change in season of use, change in management, land exchange or sale, and change in land use or resource objectives.

Comment: Long-term monitoring by range conservationists and ranchers has decreased the incidence of overgrazing. When addressing the comments on the Western Heritage Alternative, please address the need for continued monitoring to continue to prevent overgrazing. However, grazing should not be restricted based on that alternative. Grazing decisions should be determined by the range conservationist,

grazer, and sound peer-reviewed scientific evidence. These decisions should be made by those on the ground.

Response: For livestock grazing activities, monitoring plans are developed jointly with operators and all interested parties. Appendix 8, Monitoring Methods To Assess Wyoming Standards and Guidelines For Healthy Rangelands, identifies monitoring parameters that would be evaluated to support management actions implemented on an allotment basis. Any monitoring-based adjustment would be made in consultation and coordination with grazing permittees and other interested parties.

Comment: Which fence standards are being referred to here (and in Appendix 19)? Those listed in BLM Manual Handbook 1741-1, or the additional fence designs included in the Interim Fence Policy adopted by the Rawlins FO in recent years? Since most electric fence designs installed in recent years are not included in 1741-1, does this mean the Rawlins FO will no longer build or allow fences of those designs? [Page 2-27, Section: Fences, Row 1]

Response: BLM Handbook 1741-1, Fencing, contains a supplement (2003) which includes “Installation of Electric Fences.”

Comment: In the definition of “Flight Distance”, please include livestock in that definition. The practice of “low stress herding” is becoming more common and that term now applies to livestock as well as wildlife.

Response: Thank you for your comment and your interest in the Rawlins RMP. All editorial, document content, and document adequacy suggestions will be reviewed, considered, and applied to the RMP/FEIS, where appropriate.

Comment: The proper management of livestock requires varying degrees of human presence on the range at such times as the livestock are present. These activities may include herding, fencing, use of permanent or portable corrals and construction and operation of water developments. The DEIS has treated such historic and continuing activities in the same manner as the potential impacts of mineral development.

Comment: Grazing of sheep should not be restricted near sage grouse leks and nesting areas. Existing sheep grazing that is occurring in proximity to sage grouse leks and nesting areas should continue. In many of these areas, if there has not been negative impact on sage grouse population, then sheep grazing should not be considered detrimental.

Response: The term or concept of “disruptive activities” as part of management actions and impact analysis considers the non-surface disturbing impacts of human activities conducted on the public lands. The use of the term “disruptive” and management actions, stipulations, and BMPs designed to reduce impacts from disruptive activities are not intended to preclude authorized activities but influence how they are accomplished. Management actions to reduce disruptive activities in sensitive areas found in Appendix 15, Best Management Practices, are designed to reduce the impacts caused by continued human presence in areas of sensitive habitat or resources. This increased emphasis on disruptive activities is the result of monitoring results and on professional opinion that increased human presence caused by increased industrial development and recreational activities, among others, has caused increased levels of stress to wildlife and increased avoidance of preferred habitat. See the updated definition of disruptive activities in the Glossary of the RMP FEIS.

Comment: [Page 4-44, Sec. 4.7.1, Livestock Grazing, Impacts Common to All Alternatives.] The paragraph on the impacts of wild horses upon livestock grazing grossly understates these impacts. Please see our previous comments in this letter.

Comment: [Page 4-43, Sec. 4.7.1, Livestock Grazing, Impacts Common to All Alternatives.] The paragraphs on recreational impacts on livestock grazing are understated. All impacts are depicted as minor and small. But then these paragraphs say these impacts are likely to increase over the life of the plan. In the recreation sections of the DEIS, BLM says the growth in recreation will be the same as it was for the last 10 years. However, that growth is not a straight-line increase, but an accelerating increase. Through the 15-year life of this plan, those recreational impacts will force some livestock producers out of business. Those impacts are neither minor nor small. The growth of recreation impacts upon livestock grazing should be more accurately presented. Our August 6, 2004 comments in this area were again ignored.

Comment: [Page 4-42, Sec. 4.7.1, Livestock Grazing, Impacts Common to All Alternatives.] The paragraphs on the effects of mineral development on livestock grazing fail to show the horrendous effects that dense mineral development would have upon livestock grazing. The effects need to be described. The potentially disastrous effects created by the intense mineral development in the Jonah Infill area are likely to be re-created in the Rawlins planning area. These impacts as well as compensatory and off-site mitigation need to be discussed in the analysis and Revised RMP.

Response: The impact analysis in Section 4.7.1 has been updated in the RMP FEIS.

Comment: No alternative considered changes in the numbers of livestock that are permitted, or the actual use being made by livestock. Certainly livestock grazing is another significant influence and impact on the human and environment, and options that include changing the amount of actual use by livestock should have been considered, particularly given prolonged and lingering drought conditions.

Response: See Table 2-1, Livestock Grazing, in the RMP FEIS for management actions common to all alternatives.

Comment: We do not agree with statements in the last paragraph on pg. 4-51 that estimate the loss of AUMs due to minerals-management. While the procedure used by the BLM to arrive at these estimates is not clear, it appears that they were estimated from a direct reduction based on projected surface acres occupied by minerals management activities. It is our comment that the amount of forage produced on federal allotments under this alternative will continue to support current active use permitted numbers, and that no reductions in active permitted use based on the BLM estimates of “loss of forage” predictions are justified until such time as monitoring data of resource conditions have been jointly conducted and evaluated by the permittee and BLM and the data support adjustments.

Response: This paragraph states that adjustments may be warranted but would only be recommended if monitoring data supported the decision.

Comment: The DEIS Fails to Take a Hard Look at Impacts from Predator Control The BLM claims that under Alternative 3, there would be a loss of 30,000 Animal Unit Months (AUMs) of livestock grazing due to a lack of predator control. DEIS at 2-83. This appears to be a ridiculously high figure, and even the BLM’s assertion that impacts to livestock grazing due to a moratorium on predator control would be significant is dubious at best. Also, the any losses in livestock use must be offset by the economic cost of predator control, thus presenting a net economic cost of a moratorium on lethal predator control. BLM must back up these assertions by presenting the analysis, scientific support, or other hard evidence to support these rather outrageous claims in order to satisfy NEPA’s hard-look imperative. Thus far, the

agency has failed to do so. We support the approach outlined under Alternative 3 of the Draft EIS for this aspect of management.

Response: The amount of 30,000 AUMs represents the approximate number of AUMs that would be unavailable to livestock grazing if the lack of predator control on public land forced every sheep operator in the RMPPA out of business, and 1,140 AUMs would be the number of AUMs unavailable to livestock grazing if the proposed increase in wild horse numbers in the Lost Creek herd in Alternative 3 were determined to be competitive and resulted in the need to reduce or suspend livestock grazing permits. The BLM does not propose to reduce the amount of livestock grazing use that is currently being authorized in the herd management areas (HMAs) because of the increase of wild horses in the Lost Creek HMA. The management proposed in the RMP includes management of the populations within the parameters of the Consent Decree. The impact analysis in Chapter 4, Livestock Grazing, and the summary text in Table 2-4, Summary Comparison of Impacts, Impacts on Livestock Grazing, in the RMP FEIS have been updated to more accurately describe the impact of AUM loss to livestock grazing that could occur under Alternative 3.

Comment: [Page 4-51, Sec. 4.7.5, Livestock Grazing, Impacts Under Alternative 4 Preferred Alternative.] The first paragraph states that the impacts of wild horse management would be the same as under Alternative 1. But the impacts of wild horse management are not discussed under Alternative 1. Page 4-212, Sec. 4.19.1, Wildlife and Fish, Impacts Common to All Alternatives. The last sentence of the first paragraph depicting the effects of livestock grazing implies that all livestock at all times reduces the stability of riparian areas. That just isn't true. Grazing management, adherence to the Standards for Healthy Rangelands, annual operating plans, Best Management Practices, and other management techniques employed by BLM range specialists and grazing permittees often results cattle use of riparian areas that enhances or maintains the stability of riparian areas. We recommend rewording this paragraph accordingly.

Response: The impact analysis as been updated in Sections 4.7.5 and 4.19.1 of the RMP FEIS.

Comment: [Page 4-43, Sec. 4.7.1, Livestock Grazing, Impacts Common to All Alternatives.] The paragraphs on the effects of special management areas on livestock grazing are minimized. For example, they fail to mention the effects of the 2-mile VRM II classification on grazing permittees and range improvements. They also fail to mention the significant increase in costs of livestock grazing through reductions in AUMs and changes in grazing activities that are likely to occur in these areas. These paragraphs need to document these adverse effects, not ignore them. Again, our comments of August 6, 2004 in this area were disregarded.

Response: After careful consideration of the alternatives, the BLM has changed its decision to define the area within 2 miles or the visual horizon of contributing segments of historic trails as VRM Class II. The protections afforded to historic trails from the NHPA supplemented by the management actions in the FEIS will adequately protect the contributing setting of trails. Please see the updated management actions in Table 2-1 of the RMP FEIS for additional management actions specific to protection of the historic trails. For a description of specific BMPs that will be used in protecting the setting of NRHP-eligible properties, please see updated text in the RMP/FEIS, Appendix 5, Cultural Resources Management.

Comment: [Page 4-41, Sec. 4.7.1, Livestock Grazing, Impacts Common to All Alternatives.] The DEIS is inaccurate in depicting the impacts of wildland fire upon livestock grazing. The DEIS says "Deferment of livestock use after a wildland fire...would have a short-term effect on livestock operators...." To be more accurate, the sentence should read "Deferment of livestock use after a wildland fire...could have a short-term, but gravely adverse, effect on livestock operators...." As currently worded, the DEIS implies that the deferment of livestock use is of little consequence to the grazing permittee. That is wrong. The

deferment may result in additional expenses or lost revenues that could drive the grazing permittee out of business. To cavalierly dismiss these effects is to erroneously portray these effects. We noted this recommendation in our earlier comments; again, they were ignored.

Response: The text in Chapter 4 has been updated to address the concern raised in the comment. Although the impacts of rest following wildland fire are normally short-term, they can result in serious impacts to individual grazing permittees in the form of additional expenses to provide alternative sources of forage for livestock and/or lost revenues. The severity of impacts vary depending on the size and intensity of wildland fires and the distance to or availability of alternate forage sources.

Comment: On page 2-112 under Alternative 4, perhaps some clarification, exceptions, or a deletion needs to be made to the following passages: “Avoid human activity 6:00pm-9:00am,” and “March 1 - May 15 Avoid human activity between 8:00pm-8:00am.” (Grouse nesting habitat and leks) Perhaps a clarification stipulating its application only to Surface Disturbing Activities can be made if that was the intention? If not, an exception to allow for livestock management activities needs to be made.

Response: See updated definition for Disruptive Activities in the Glossary.

Comment: Note that Table 3-4 does not include Sweetwater County, a component of the RMPPA. According to the 2000 U.S. Census[see footnote 4], the combined county land areas (square miles) for Albany, Carbon, and Laramie Counties is about 14,961 square miles (X 640 = 9,575,040 acres). As stated in the Abstract and Introduction sections of the DEIS, there are about 11.2 million acres of land in the RMPPA which leaves approximately 1.6 million acres contributed by Sweetwater County (11.2 - 9.6 = 1.6 million acres). Based on the above observations, it is clear that data presented in Table 3-4 contains serious errors and is unreliable for the four counties within the RMPPA. Livestock type numbers, total numbers, and percent cattle are wrong and therefore, casts doubts on how other livestock data (or any of the other data presented in the DEIS) was collected and presented (e.g., AUMs utilized).

Response: See updated text in Section 3.7, Livestock Grazing. Table 3-4 has been updated to Figure 3-34 and is now a graph that represents the trend in sheep and cattle numbers for the state of Wyoming. This graph adequately represents the trend of domestic livestock numbers within the RFO.

Comment: On pg. 4-52, we do not agree with the narrative that states that more restrictions to the construction of grazing improvements on 5270 acres on Ferris Mtn. are justified to preserve “naturalness”. If grazing improvements are needed on Ferris Mtn. to support active livestock use, then the lack of those improvements will cause adverse impacts to “naturalness”, not the other way around.

Response: No special designation for the West Ferris area is included in the RMP FEIS; therefore, discussion of those impacts on livestock grazing has been deleted.

Comment: Page 4-43 Grazing 4.7.1 Impacts common to all alternatives: 3rd full paragraph; “OHV use would have a minor effect on livestock grazing...” Comment: this discussion fails to consider the effects of lost forage and increased soil erosion potentially caused by inappropriate use of OHV. BLM needs to revise the document to account for these deficiencies.

Response: The analysis was based upon casual use and permitted activities. The effect is still minor.

Comment: P. 4-51, we do not agree with the statement under 4.7.5 that management to meet DPC objectives would create a reduction in forage availability and production. By definition, and we thought policy, DPC are developed in consultation with the permittees and it has been our experience to date that

trend toward DPCs developed in consultation with the ranchers creates a situation of improved resource conditions to the benefit of the BLM, the permittees, and other multiples uses.

Response: This statement is in reference to increasing the presence in riparian communities of woody plants, which at higher densities would reduce the amount or availability of herbaceous forage for livestock use. The text describing impacts of desired plant community (DPC) to livestock grazing in riparian habitat was changed to a reduction in forage availability as the density of woody plants increase, with the level of this effect depending on both site potential and desired objectives. This was stated as a negative impact upon livestock grazing in this particular example. However, later in this section under Vegetation and DPC, it states that in most cases, there would be improved forage production that would result in benefits to the livestock operation.

Comment: On pg. 4-52, we do not agree that changes in livestock management are automatically justified when reintroduction of CRCT and other native cold water and warm water species are proposed. We again comment that it is inappropriate for the BLM to consider or propose adverse economic impacts to one multiple use to accommodate another multiple use, especially in a reintroduction situation.

Response: The statement was that fish reintroduction could result in changes in livestock management, rather than that they are automatically justified. An example in which existing management was already adequate is Loco Creek, where brook trout were reintroduced following changes in livestock management to improve riparian habitat. The level of livestock use has remained constant, even though rest periods for plant growth were incorporated into a grazing system. As a result, livestock conception rates and weaning weights have increased, while trout habitat has improved.

Comment: In the definition of “Livestock Conversion”, we had always thought that the term “livestock conversion” is a non-discretionary technical concept of the scientific ratio relationship between body weights and forage consumption rates between different classes of animals. It is our understanding that the BLM claims the right to approve, or reject, request to convert to different classes of livestock on grazing permits, but we question the definition of this technical term, per se, as a discretionary action. The BLM's discretion is on the request to convert on a permit, not on the conversion concept itself.

Response: See update in the Glossary for the definition of “Livestock Conversion.”

Comment: In the term “Allotment”, please remove the concept that lands other than federal lands are “usually” included in the definition of an allotment. The Federal Land Planning and Management Act, FLPMA, states that lands other than Federal are included in the allotment only with the permission of the owner of the non-federal lands.

Response: In the RFO, the majority of livestock grazing allotments contain some amount of private, state, and/or other federally managed lands that are intermingled. Permittee or lessee consents to the inclusion of these lands in their allotment, with the signing of their permit or lease.

Comment: [I would like to express my concern regarding compensation to ranchers] for the loss of their grazing land. The BLM leases that are being taken for drilling purposes should at least be compensated for. This will cut back on the rancher's losses brought on by the development.

Response: Compensation to ranchers for the loss of public grazing land is not within the scope of the Rawlins RMP planning process. The amount of forage lost to long-term development would occur incrementally and, in many cases, would be replaced with forage from successful reclamation of short-term disturbances. However, based on the surface disturbance during development and monitoring of

grazing allotments, adjustments to annual grazing authorizations would be considered, as necessary, to meet Standards for Healthy Rangelands.

Comment: Water developments are important to manage livestock grazing. These developments should be allowed in critical winter range, as long as access to them can be restricted to allow management of the time that they are available.

Response: Water developments would be allowed in critical winter range under the Proposed Plan in the RMP FEIS.

Comment: This planning effort should include the required analysis of site-specific impacts of grazing and the required discussion of the balancing of values that will ensure that grazing best meets the present and future needs of the American people. The Comb Wash Decision held that this balancing is mandatory and the revised RMP should reflect both that this balancing was carried out and what its results were, on a site-specific basis. The DEIS fails to undertake this “suitability” analysis for livestock grazing on the public lands within the Resource Area. Instead current grazing levels are merely continued indefinitely.[footnote 36] DEIS at 2-8.

Response: The content of the comment is not within the scope of the Rawlins RMP planning process. The level of analysis suggested in the comment is conducted at the permit renewal stage on an allotment-specific basis.

Comment: The DEIS Glossary defines “Disruptive Activities” to include “fencing modification; facility monitoring; and livestock herding.” These activities, as applied to livestock permittees, are historic practices that have been proven to have little impact on wildlife species. Appendix 1 makes these activities subject to application of the Mitigation Guidelines for Surface-Disturbing and Disruptive Activities. Application of these guidelines will have the practical effect of severely restricting or eliminating livestock grazing in some areas. WSGA requests that the definition of “Disruptive Activities” be eliminated from the DEIS or, in the alternative, that references to these recognized livestock management activities be removed for the definition.

Response: See the updated definition of disruptive activities in the Glossary.

Comment: [page 2-8 2.3.6] Monitoring methods should be specified to comply with Wyoming Rangeland monitoring guide as to be acceptable when done by either BLM or Landowners or their representatives.

Response: The guides, by their definition, are not meant to be all-inclusive of methods. Examples of monitoring are included in Appendix 8, but specific details of methods would be developed at the activity plan level. This allows for flexibility and the use of new techniques and technology. BLM does not limit who can collect monitoring data.

Comment: [page 3-84 White Tailed Prairie Dogs] SERCD believes that livestock management should not be driven by the need to protect or enhance any other resources.

Response: See the livestock grazing section of Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS, for goals, objectives, and management actions for livestock grazing management.

Comment: In the second paragraph, pg. 4-45, we comment that the BLM state that livestock that are outside a permitted area due to fence modification to accommodate wildlife concerns will not be

considered in trespass. Permittees will be requested to return these livestock to their permitted area, and if the problem becomes chronic, that fences will be modified to keep livestock inside their permitted area.

Response: Most fence conversions are from mesh with barbed wire fence, needed to control sheep, to barbed wire-only fence that is adequate to control cattle. Conversions are discussed with permittees beforehand, and if problems arise afterwards, they are resolved on a case-by-case basis.

Comment: In the Affected Environment section of the DEIS, BLM notes that black-tailed prairie dogs “do compete with livestock for food.” DEIS at 3-138. However, BLM fails to note that the level of competition is fairly negligible and that prairie dogs may in fact increase forage palatability and nutrient content as a result of their herbivory.

Response: The statement that prairie dogs compete with livestock for food is true; the level of competition is dependent on the specific location and site conditions.

Comment: Appendix 29 It would be useful if BLM would specify the grazing preference, permitted use, and actual use for each allotment. Will BLM do this? Why or why not? Presumably BLM has this information, and coupled with the information regarding use dates and grazing management systems, the basic management for each allotment would be shown. It would also be helpful to show whether each allotment has an allotment management plan (AMP) or not, and if not what the priority is for preparing an AMP. Page 2-26 gives no indication that BLM intends to pursue any AMPs. Does BLM intend to develop any AMPs under the new RMP? Why or why not? What allotments will be given priority for development of AMPs, and when will the AMPs be developed? FLPMA and the Public Rangelands Improvement Act and their implementing regulations, clearly contemplate AMPs as a major and primary means for managing livestock use. Certainly, at a minimum, any allotments that have been determined to not be in properly functioning condition or which have rangeland health problems should be candidates for the development of an AMP. Does BLM agree? Why or why not? Table A33-4 specifies a number of livestock related actions BLM plans to undertake, but these should be tied to priority AMPs; as it stands they represent little more than a menu of range management projects rather than a cohesive framework or plan, which an AMP helps to provide.

Response: The level of detail you request is not available for the entire RMPPA, and as appropriate or as needed, it is incorporated into activity plans on a site-specific basis. Allotment management plans (AMPs) have been developed on less than 10 percent of all allotments. The priority ranking of allotments in the old RMP is replaced with assessing and meeting standards on all allotments; therefore, priorities are changing annually as assessments are completed. In many allotments, protection of one to several water sources is all that is needed to achieve the riparian standard, and AMPs are developed for allotments with diverse, complex resource problems. Although current priorities have largely dealt with Standard 2, Riparian/Wetland Health, this may change in future years to Standard 4, Wildlife Habitat, and include improving the amount of residual cover provided in greater sage-grouse nesting habitat and involve different allotments.

Comment: Why is it that achieving standards and achieving desired plant community are not generally synonymous (Alt. 1 & 3)? Achieving the desired plant community should mean that the standard is being achieved. BLM needs to explain the difference between the two concepts. [Page 2-26, Section: Mgmt. Action, Para. 2]

Response: See Appendix 8, page 5, for text describing the differences between achieving standards and achieving the desired plant community.

Comment: We also support the continued efforts of the range staff to conduct as much on-the-ground monitoring of rangeland resources as budgets and priorities permit. The WSGB is supporting a monitoring process called “Joint/Cooperative Monitoring”, JCM, between the BLM and grazing permittees. The principals of JCM are contained in a Memorandum of Understanding signed last year by the Head of the National BLM, Kathleen Clarke, and the National Public Lands Council. We feel that the Rawlins BLM office has supported and incorporated many of these JCM concepts into their management programs, and those efforts are appreciated by the WSGB and our member permittees. As a way to extend the commitment of JCM from the National level of the BLM to the local level, we request that the Final RMP include the JCM-MOU in the Final RMP, and state a direct commitment to the process of JCM by including this process as one of the LUP decisions.

Response: See Section 1.4, which states that BLM must follow all statutes, limitations, and guidelines and policy, which incorporates MOUs by reference.

Comment: Isn't “achieving rangeland standards” common to all four alternatives, as it is in the management actions? [Page 2-26, Section: Mgmt Goal, Row 1]

Response: Achieving rangeland standards is common to all alternatives in the RMP/FEIS; however in Alternatives 3 and 4, in addition to achieving standards, BLM would work with livestock grazing permittees and other interested parties to achieve DPC.

Comment: [Page 1-45/15, Sec. 1.4.2, Land Use and Natural Resource Management.] We strongly object to the omission of key words by the DEIS authors in this section that describes the provisions of FLPMA. The first paragraph of this section refers to the Congressional Declaration of United States Policy in FLPMA and the words that provide the foundation for FLPMA. That national policy includes the management of public lands in a manner “that will provide food and habitat for fish and wildlife and domestic animals...” That provision of U.S. policy was omitted by the authors of the DEIS. As noted in our comments on Vegetation Management above, the DEIS repeatedly omits that portion of the national policy that mentions the need to provide for food and habitat for domestic animals. The environmental consequences of depleted habitat for fish and wildlife abound in the DEIS. The consequence of depleted habitat for domestic animals is rarely mentioned. The importance of providing adequate food and habitat for fish and wildlife is mandated throughout the DEIS. The requirement for providing food and habitat for domestic animals is comparatively non-existent in the DEIS. For these reasons, we recommend these words that were omitted from the quoted paragraph of the Congressional Declaration of U.S. Policy be reinserted and that the Congressional declaration of U.S. Policy that BLM needs to provide food and habitat for “fish and wildlife and domestic animals” be recognized as appropriate throughout the Final EIS and the Revised RMP, also found on page 2-8, Sec 2.3.5, Livestock Grazing.

Response: Section 1.4, Land Use and Natural Resources Management, has been updated in the RMP FEIS to accurately reflect the text of FLPMA, concerning wording about domestic animals.

Comment: There are at least three references to modifications of fences (pp. ES-6, 2-71, and 4-45). Language needs to be included that conveys that fence modifications will be conducted only after close communication, consultation, coordination, and cooperation with the permittees involved. In areas where wholesale modification may be proposed, changes in key places may instead be sufficient. A bull across the fence from cows will walk unimpeded through a fence built to 3-and 4-wire BLM specifications. Other classes of livestock (cows, yearlings, calves, sheep) as well are only slightly deterred under certain circumstances, whereas many of the fences in place are a more adequate deterrent.

Response: See updated text in Table 2-1 concerning fence construction and modification.

Comment: Very strongly support managing riparian areas to meet DPC and recommend that this language be included in the preferred alternative. [Page 4-49, Section: 4.7.4, Para. 7]

Response: Management of riparian areas is addressed in Chapter 2, Table 2-1, Livestock Grazing, in the RMP FEIS.

Comment: In the Glossary on page G-6, the term “Disruptive Activities,” as defined, needs to be amended. In particular, the term “livestock herding” needs to be removed from this definition. An extreme example of the potential impact that the current definition could have on livestock operations can be shown as follows: On page 2-4, under the discussion of the Western Heritage Alternative, an NSO stipulation would have been considered for “disruptive activities” and would have been applicable to “...more than 90 percent of the RMPPA (about 3,117,000 acres).” Although I doubt that this is the intention in the WHA, the definition, left as is, appears as though it would have given the authority to excessively limit livestock grazing. Were that authority enforced, it might well have eliminated livestock grazing throughout the RMPPA to that same 90 degree. In the same vein, could hunting be considered a “permitted or organized recreational activity” as contained within the definition of Disruptive Activities? If so, perhaps it should be specified as not being included as a disruptive activity.

Response: See the updated definition of Disruptive Activities in the Glossary.

Comment: Water developments are important to manage livestock grazing. --These developments should be allowed in critical winter range, as long as access to them can be restricted to allow management of the time that they are available.

Response: Under the proposed plan, water developments would be allowed in crucial winter range when they are consistent with wildlife habitat needs. See Table 2-1, Wildlife and Fisheries.

Comment: Suggest that wild horses not be the focus when determining the effects of changing class of livestock, but rather use the strategy from the action in paragraph 3 and strive to...achieve healthy rangelands. [Page 2-26, Section: Mgmt. Action, Para. 3]

Response: Table 2-1, Detailed Comparison of Alternatives, Livestock Grazing in Management Actions Common to All Alternatives, includes the following management action: “Requests for changes in season-of-use or kind-of-livestock would be considered on a case-by-case basis. Any decision regarding changes in grazing use would include cooperation, consultation and coordination with the grazing permittee, and other affected interests.” Changes in kind of livestock within HMAs would consider the impacts to wild horses and would be determined on a case-by-case basis.

Comment: From a livestock industry perspective, my greatest overall “big picture” concern with this new plan is what one may perceive to be a major shift in emphasis of priority from what (generally speaking, throughout the majority of the planning region) has been a fairly well-balanced, cooperative working relationship between the private landowners, permittees, and those responsible for wildlife habitat management, toward managing (exclusively, it seems, in some cases) for wildlife habitat, much at the expense of livestock operations. Although out of context, seeming to back this up is the statement on page 4-255: “Cumulative impacts to livestock grazing operations would be considered significant under Alternatives 1, 3, and 4 because of substantial forage removal and/or loss of AUMs.”

Response: Your reference to cumulative impacts and loss of forage or AUMs is primarily related to increased mineral development and associated impacts to vegetation and grazing. Significant impacts to wildlife from minerals activities are also described, at length, in part because of the diversity of wildlife present in south-central Wyoming. Examples of the past cooperative efforts with permittees and

conservation districts are described in Chapter 3. Although not long in length, the Livestock Grazing Management Objectives and Actions in Chapter 2, Table 2-1, identify the continuing need for consultation, coordination, and cooperation with permittees.

Comment: The BLM needs to make the distinction between enhancing and maintaining grazing (Alt. 1 and 3). If enhancing just means increasing numbers, then the strategy is not likely to be well received. [Page 2-26, Section: Mgmt. Goal, Para. 1]

Response: See updated text in Chapter 2, Table 2-1, Livestock Grazing, Management Goals and Objectives, in the RMP FEIS.

Comment: Page 2-33 Recreation Resources: “The west end of the Ferris Mountains.” Speaking on behalf of the Ferris Mtn. Ranch, as an affected livestock operation we are very concerned about the directive as proposed under the Preferred Alternative. It reads that “Off-road vehicular travel for ‘necessary tasks’ would not be allowed in the west end of the Ferris Mountains.” (My emphasis added.) If this alternative is carried forward as the proposed action, we respectfully request that language be included to make exceptions that would allow OHV access for livestock management purposes.

Response: See updated management actions in Table 2-1, Recreation and Visitor Services.

Comment: On a note related to DPCs, on page 4-51, 7th paragraph, the sentence “However, there would be a reduction in forage availability and production” is debatable. Wouldn't it depend on the site's current stage of succession? Wouldn't you agree that some rehabilitated late seral or decadent woody sites (which, due to a lack of naturally occurring fires, are likely common) would, at least for a time and perhaps ultimately with proper management, result in an increase in available forage? Unless taken out of context, it seems that the statement on page 4-47, first paragraph, would support this opinion. “Similarly, insufficient vegetation treatments are contributing to the continued trend in mature to decadent shrubland and woodland communities, which would result in lower herbaceous production over the long term...”

Response: The text describing impacts of DPC to livestock grazing in riparian habitat was changed to a reduction in forage availability as the density of woody plants increase, with the level of this effect depending on both site potential and desired objectives. This was stated as a negative impact upon livestock grazing in this particular example. However, later in this section, under Vegetation and DPC, it states that in most cases, there would be improved forage production that would result in benefits to the livestock operation.

Comment: Other impacts/costs that should be considered include increased trespass of livestock and thus an increase in complaints to the BLM that may require enforcement. Among the greatest costs are increased risk of between-herd disease transmission; retrieving and returning stray livestock; loss of income due to livestock missing at shipping dates; bull straying resulting in mixed, unintended genetics; breeding of first-calf heifers by large birthweight bulls resulting in increased death loss of both calves and first-calf heifers; calves being born outside the planned calving period which “snowballs” into lowered conception rates, lowered weaning weights, and lowered selling prices due to lack of uniformity. Also, there may be increased disputes between neighbors, since the cliché that “good fences make good neighbors” is true! Control of livestock is immensely important and, in some cases, the lack of it will provide the log that breaks the camel's back. I believe it would be a mistake to take for granted the current level of livestock control we have, especially in areas where the big game wildlife are at or above population objectives.

Response: See updated text in Sections 3.7 and 4.7, Livestock Grazing.

Comment: Current average livestock weights may be heavier than that assumed for the standard definition of an AUM (1,000 cow/calf unit). The RMP should examine if the assumed AUMs in Tables 3.4 and 3.5 accurately reflect actual use on the ground based upon a corrected AUM rate. [Page 3-25, Section: Current Use, Para. 1]

Response: Changing the standard definition of an AUM is not within the scope of the Rawlins RMP planning process, and the definition would need to be modified at the national level.

Comment: Livestock grazing in the Rawlins RMP planning area does not exist solely to protect and enhance resource values other than livestock grazing. Livestock grazing is authorized and promoted by law and regulation as a legitimate commodity use. Moreover, FLPMA notes the need “to provide habitat and forage for fish, wildlife, and domestic animals” (emphasis added). Livestock grazing, in and of itself, deserves to be protected and enhanced. All too often, the DEIS implies that the only reason livestock grazing exists in the planning area is to benefit all other resource values. As we noted in our 2004 comments, that mistake deserves to be corrected.

Response: See updated text in Chapter 1.4 and Chapter 2, Table 2-1, Livestock Grazing, in the RMP FEIS.

Comment: 4-54; 4.8.1 Minerals; fifth full paragraph, fifth line; “Mitigation within grazing allotments would include...upkeep and repair of fences and gates...” Comment: Generally this type of stipulation is limited to those structures and facilities affected by oil and gas activities.

Response: See updated text in RMP FEIS, Section 4.8.1, Minerals, which addresses fences and gates affected by oil and gas activities.

Comment: [Page 2-26, Summary Comparison of Alternatives, Livestock Grazing, Management Action re: Grazing Systems & Range Improvements.] Alternative 1 remains as originally worded, “Grazing systems and range improvements would be designed to achieve the management goals for livestock grazing, and would serve, as the primary means of improving or maintaining desired range conditions.” Alternative 4, the preferred alternative, originally read, “Same as Alternative 1.” Without cooperators being notified, Alternative 4 was changed to read, “Grazing systems and range improvements would be designed to achieve and maintain healthy rangelands.” We strongly recommend adoption of Alternative 1 or that the preferred alternative be changed to the original wording that was agreed to by BLM staff and cooperators, “Same as Alternative 1.” While grazing systems and range improvements can and should be designed to help achieve and maintain healthy rangelands, they definitely should also be designed to achieve the management goals for livestock grazing. To expect grazing permittees to fund, construct, maintain or operate grazing systems and range improvements designed to not meet goals of livestock grazing is absurd. The design of grazing systems and range improvements must consider the goals of livestock grazing and the selected alternative should say so.

Response: See updated text in Table 2-1, Detailed Comparison of Alternatives, Livestock Grazing, which now includes achievement of management goals for livestock grazing under the Proposed Plan.

Comment: [Page 2-26, Summary Comparison of Alternatives, Livestock Grazing, Management Goal.] We strenuously objected to the wording of the preferred alternative for the management goal for livestock grazing in our comments on the PDEIS. Our comments were ignored. The FEIS should set a pro-active management goal for livestock grazing, and not simply say livestock grazing should be managed to be compatibly balanced. We strongly support adoption of Alternative 1 in the FEIS and that goal be strongly evident throughout the Revised RMP.

Response: See updated text in Table 2-1, Detailed Comparison of Alternatives, Livestock Grazing.

Comment: 3-27 to 3- 29 Anecdotes relative to 8 out of the 582 allotments on the RFO are presented. Why were these allotments chosen? Are they representative of the 582 allotments on the RFO? Do they tell us something about livestock grazing in general on the RFO? What? Were they randomly selected to ensure no bias enters into whatever story they are telling? Frankly, these anecdotes seem to be simply “success stories” where the permittee is particularly cooperative or engaged in livestock management. While these stories may be laudable, they have no place in an RMP intended to guide management on 3.4 million acres of public land unless they are shown to be representative of general conditions or otherwise establish general principles. There are likely “horror stories” as well where the permittee is very difficult to work with. If this is true, and BLM should know whether it is or not, then anecdotes of this type should also be presented so that a complete picture of the realities of rangeland management on the RFO is presented.

Response: See updated text in Section 3.7, Livestock Grazing. In addition, the use of BMPs has evolved over the last 20 years, and this section simply describes examples of their use and benefits derived from them.

Comment: Regarding the unacceptable loss of grazing AUMs, Alternative 3 calls for an increase in AML for the Lost Creek herd from the current AML of 70 to a new AML of 165. The preferred alternative (Alternative 4) also indicates a possible change in this AML based upon monitoring. The Summary Comparison of Impacts in Chapter 2 states there would be a loss of 30,000 AUMs under Alternative 3 resulting from this increase in wild horses in the Lost Creek HMA and from a lack of predator control. The Preferred Alternative says the impacts upon livestock grazing “would be similar to those under Alternative 3...” The writing in the section of Chapter Four, Environmental Consequences, which discusses the effects of wild horses upon livestock grazing by the preferred alternative, refuses to discuss these impacts. The DEIS says “Impacts...from wild horse management on livestock grazing would be the same as under Alternative 1.” However, Alternative 1 DEIS fails to mention any impacts of wild horse management on livestock grazing. Thus, as written, the preferred alternative in the DEIS shows a devastating loss of 30,000 AUMs for grazing permittees for this planning area and blatantly violates the Consent Decrees agreed to by the BLM and the State of Wyoming.

Response: Table 2-1, Detailed Comparison of Alternatives, and Table 2-4, Summary Comparison of Impacts, have been updated in the RMP FEIS to clarify the text concerning the increase in appropriate management level (AML) and lack of predator control under Alternative 3. The 30,000 AUMs would be unusable because of a lack of predator control, not a loss of available AUMs because of the increase in the AML for wild horses.

Comment: [Page 2-14, Sec. 2.3.11, Special Management Areas, Encampment River Potential Wild and Scenic River.] We again recommend, as we have in earlier comments, to change “Range improvements and increases in grazing preferences would not be allowed” to read “Range improvements and increases in grazing preferences would be managed to meet watershed objectives.” Even the DEIS later notes that “Surface disturbing activities would not be allowed within the viewshed of the Encampment River.” (Page 2-60, Alternative 3 and preferred alternative). Thus, surface disturbing activities are allowed outside of the viewshed, but range improvements and increases in range preference are not. That's illogical and unjustifiable. No scientific or non-scientific justification is provided. Range improvements have positive benefits for wildlife and the environment, as well as for grazing. In those areas beyond 1/4 mile from the Encampment River, there should be no reason for not allowing increases in grazing preferences, as appropriate. This is another example of a recommendation that would provide additional flexibility to BLM decision makers in the future, as conditions warrant. We strongly recommend, again, deleting this universal prohibition of improvements and increases in range preferences and including

wording similar to that used on page 2-66, which says grazing on the Encampment River Watershed grazing should be managed to meet watershed objectives.

Response: See updated text in Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS concerning allowing range improvements within the potential Wild and Scenic River (WSR) boundary. The boundary for the WSR is the watershed. Increases in grazing preference would be allowed inside this boundary, if they were in compliance with the Wilderness Study Area IMP (BLM Manual 8550).

Comment: For allotments where sage grouse nesting is known to occur, shifting on-off dates (if necessary) could minimize the chances of impacts to nesting sage grouse, and livestock drives should be routed to avoid sage grouse leks during the strutting and nesting seasons.

Response: Suggestions from the WGFD for improving management of greater sage-grouse have emphasized maintaining or enhancing habitat the birds use, rather than on livestock husbandry activities. Herded sheep on trail often follow roads, and there are no designated livestock driveways in the RMPPA. Cattle with calves or sheep with lambs in the spring are spread out in small numbers and are unlikely to affect nesting grouse.

Comment: 3-24 to 26 The data presented here shows a striking increase in the number of AUMs actually being used. There has been a 68% increase from 1991 to 2000, a time of prolonged drought. How can BLM justify that level of increase, and will it allow these kinds of increases in the future? 23 allotments are not meeting the standards and guidelines for livestock grazing. Have these allotments seen increases in livestock use, and if so what proportion of the 68% increase in actual use has occurred on these 23 allotments? It is also stated that 56 percent of the allotments are used on a season-long basis and that 75 percent of the 80 largest allotments have adequate management or grazing systems. Do any of the 80 largest allotments, 75 percent of which BLM views as having appropriate management, also have season-long grazing, or said differently, does BLM view season-long grazing (particularly during the hot season) as appropriate in this area? Why? What is the time period for “season-long” grazing?

Response: Season-long grazing is defined in Section 3.7. See updated text in the RMP FEIS for the same section; however, the level of detail you request is incorporated into allotment plans on a site-specific basis.

Comment: Page 3-25, Section 3.7.2: Best management practices (BMP) are mentioned on Page 3-25. These should be consistent with and inclusive of BMPs accepted by WDEQ.

Response: BMPs are primarily described in Appendix 13; however, they are also mentioned in other appendices. BMPs may change based on evolving science or local experience and are used, refined, and/or developed on a site-specific basis to address the issues and activities occurring.

Comment: BLM should recognize and analyze the significant adverse impact of livestock grazing on cultural resources and fulfill its obligation to identify and proactively protect cultural resources. It should also analyze the full suite of economic impacts of livestock grazing, including the direct and indirect costs of the grazing program.

Response: Refer to the updated text in Appendix 5, Cultural Resources Management, in the RMP/FEIS for actions available to BLM to protect cultural resources from other multiple-use management actions. See Section 4.3, Cultural Resources, for a discussion of impacts to cultural resources from livestock grazing activity. Cost information is outside the scope of the plan.

Comment: BLM. should ensure there is sufficient water quality monitoring relative to the impacts of livestock grazing, and take concrete steps to guarantee that livestock grazing does not adversely impact water quality or impair designated beneficial uses of these waters. The BLM must collect all data necessary to evaluate and achieve compliance with water quality standards, including in particular standards related to fecal coliform bacteria. Compliance with the Safe Drinking Water Act should also be addressed. The EIS fails to do these things.

Response: Section 3.17.2.2 contains information about water monitoring that will be done as part of this plan. Most of the monitoring will be in coordination with Standards for Healthy Rangelands evaluations (USDI, BLM 1997). If there is any indication that water quality as a result of BLM-approved activities, including livestock grazing, are not meeting Standard 5 (Appendix 8), the area would not pass these standards for healthy rangelands, and changes in management would need to occur. The BLM believes this will meet our obligations under the law and responsibilities for public land management.

Comment: EPA recommends that the following techniques be considered to fully address the adverse environmental consequences of grazing. Identify “triggers” - drought, natural catastrophes, forage production and condition, and impacts on sensitive native species, for example - that would reduce or remove livestock numbers and duration in an allotment. Incorporate flexibility in allotment permits to account for such special circumstances. Precipitation is a primary determinant in both herbage production and plant diversity.

Response: As appropriate, or as needed, changes in the allocations of AUMs would be implemented based on monitoring. See the RMP FEIS, Appendix 8, Monitoring Methods to Assess Wyoming Standards and Guidelines for Healthy Rangelands; Appendix 17, Monitoring and Evaluation; and Appendix 19, Vegetation Treatments, Forest Practices, and Range Improvements. Changes in annual allocation of AUMs are assessed in consultation and coordination with livestock grazing permittees and are incorporated into activity plans on a site-specific basis. The current livestock grazing permits allow for flexibility. Refer to the actual use adjustments in Section 3.7.2, Current Use, and Table 3-5, Livestock Actual Use in Animal Unit Months (AUM) for the RMPPA from 1991 to 2000.

Comment: Livestock grazing, like all land uses, should only occur in areas where it has been carefully determined, pursuant to the land use planning process, to be a suitable use of the land. That is lacking in the EIS. The suitability determination should be made in the RMP at two levels: (1) for the RMP area as a whole and (2) for site-specific areas.

Response: Livestock grazing has occurred within the RMPPA for well in excess of 100 years. Our assessment of the overall conditions resulting from that use indicate that livestock grazing is an acceptable use within the RMP area as a whole. The elimination of livestock grazing from public lands in the planning area was considered as one option to resolve range and watershed management issues in the current Great Divide RMP. However, after review of vegetation data, the rangeland health assessments conducted to date, and public scoping comments, the BLM concluded that eliminating livestock grazing from public lands continues not to be a necessary management option or allocation decision in this RMP. Site-specific analysis of suitability is conducted on an allotment-specific basis at the permit renewal stage.

Comment: We also ask that BLM address compliance with the “Comb Wash Decision” in the EIS and the RMP itself. *National Wildlife Federation v. BLM*, 140 IBLA 85 (1997). That appeal not only affirmed the longstanding rule that NEPA requires the BLM to analyze the site-specific impacts of grazing, it must also engage in “reasoned decision-making” on the question of whether to allocate lands and associated resources to this particular use. The EIS fails to make this analysis, meaning BLM must do so on a site-specific, allotment-specific, basis, and the final EIS should so provide. The EIS should include the required analysis of site-specific impacts of grazing and the required discussion of the balancing of values

that will ensure that grazing best meets the present and future needs of the American people. As noted above, this balancing is required so as to meet the requirement that public lands are managed on the basis of multiple use and sustained yield. See 43 U.S.C. §§ 1702(c), 1732(a). The Comb Wash Decision held that this balancing is mandatory, and the plan should reflect both that this balancing was carried out and what its results were, on a site-specific basis. Or failing this, required that such determinations be made on an allotment-specific basis.

Response: Although livestock grazing is identified as an appropriate use within the RMPPA. The size of the RMPPA and the tremendous variation in resources present across the landscape makes an accurate analysis of the site-specific impacts for the entire RMPPA extremely complex and difficult. In order to avoid the inadvertent omission of site-specific impacts, this analysis is conducted at the permit renewal stage on an allotment-specific basis.

Comment: In accordance, with the standards and guidelines, the Comb Wash Decision, and provisions in the FLPMA and PRIA, the EIS should determine the suitability of lands within the RMP area for livestock grazing and the RMP should require adjustments accordingly. No such analysis currently exists in the EIS.

Response: BLM thanks you for your comment; however, the content of the comment is not within the scope of the Rawlins RMP planning process. This analysis is conducted at the permit renewal stage on an allotment-specific basis.

Comment: A8-2 to 7 It is unclear what areas are meeting standards and which are not. Map A8-1 shows areas that have been evaluated, but that is all. But since these areas have been evaluated, BLM knows which specific areas are meeting standards and which are not, at least for the areas evaluated in 2001-2004. Information, a map, should be presented showing whether areas that have been assessed met each of the standards and if they are not meeting the standards, the reasons for that should be stated. In areas not meeting the standards, BLM should state how it will modify management-of all activities, not just livestock-to ensure "significant progress" is made toward achieving the standards, as required by BLM regulations. What specific management actions are being taken to improve unhealthy rangelands? These should be stated and required by the RMP for all, activities that occur in areas where the standards are not being met.

Response: The assessments for standards and guidelines within the RMPPA are an ongoing process and areas are continually being assessed and reassessed. A map displaying which specific areas are meeting standards and which are not, would not be an accurate representation for the life of the plan.

See http://www.blm.gov/wy/st/en/field_offices/Rawlins/range.html for "Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management" for specific information about the results of the assessment process. This includes the discussion of areas that have or have not met standards and guidelines. Implementation of changes in grazing management occurs within allotments that are not meeting standards, as a result of livestock. Mitigation measures are described in individual NEPA documents as part of the permit renewal process and these documents that are open to public review. Management actions to correct non-attainment of standards, as a result of other resources or resource uses, are addressed through the application of BMPs, mitigation measures, and reclamation as presented in the various RMP FEIS appendices, on a case-by-case basis.

Minerals

Comment: we are astounded at a gross mischaracterization of the WHA that appears in the DEIS (Chapter 8, page 4): the suggestion that the WHA proposal would result in locking up 90% of the Rawlins Field Office into a "No Surface Occupancy" status. That was not the intent of the crafters of the WHA, and that is not the facts of the WHA. The WHA calls for only 8% of the 4.5 million acres in the planning area to be set aside -- conserved and protected -- for the benefit of future generations.

Comment: In chapter 2, page 4 of the DEIS, an entire 150 page alternative proposal (The Western Heritage Alternative) is dismissed with the comment that it "proposed that a 'no surface occupancy' (NSO) stipulation be considered for surface-disturbing and disruptive activities on more than 90 percent of the RMPPA (about 3,117,000 acres)." When I looked at the proposal, I could not find that 90 percent anywhere, and that figure is not supported with any tables or analysis. And this rejection was in spite of the fact that, in the BLM's own words, "did provide or develop issues and concerns into management recommendations for many of the resource issues that it presented."

Response: The Western Heritage Alternative was determined to not be a reasonable alternative because of, among other things, the excessive acreage of NSO restriction proposed in the alternative. See updated text in the Rawlins FEIS, Section 2.3.3, Alternatives and Management Options Considered But Eliminated From Detailed Analysis, Western Heritage Alternative.

Comment: Oil shale research and development leases must contain stipulations requiring companies to conduct air quality monitoring to establish baseline conditions before on-the-ground activities are undertaken on any leases issued. It is worth noting here that neither BLM nor companies should attempt to rest on any baseline studies performed over 20 years ago as part of its Prototype Leasing Program in the 1980s. Conditions in these areas have changed significantly over the last two decades, and this data is outdated and of little use in establishing true current baseline conditions.

Comment: Oil shale exploitation can have all of the expected environmental effects from open-pit mining, plus the prerefining stage to get crude oil may emit ash and pipelines must be built to an oil refinery. Some scientists have found that shale oil produces four times as much greenhouse gasses as conventional oil. Moreover, oil shale waste rock, which expands by around 30% after processing due to a "popcorn effect" from the heating, must be disposed of and is a known carcinogen. All of these environmental impacts must be analyzed in detail if oil shale exploration and production is to be approved under the Rawlins RMP.

Response: See Section 3.8.4 and Appendix 33, Reasonably Foreseeable Developments and Reasonably Foreseeable Actions (RFD/RFA) Tables, in the Rawlins RMP FEIS for a discussion of oil shale. Currently, there is no reasonably foreseeable oil shale development expected in the RMPPA. If a project were to be proposed in the future, the RMP would most likely need to be amended or revised based on a project specific analysis of the proposal.

Comment: I oppose the BLM's current preferred alternative plan for the Great Divide, which would allow the drilling and other destructive industries in wildlands that contain irreplaceable natural and cultural resources. Instead of encouraging investments in drilling and oil production, please help re-focus investments to finding alternative forms of energy.

Comment: The Plan's only apparent shortcoming is that it needs to address wind power development more adequately.

Response: Several alternative sources of energy are still in the developmental stages. Each type poses limits on where and how efficiently it can be used. Research and development continue concerning the effective use of these energy sources. No proposals for alternative energy development, other than wind power, are anticipated to occur in the foreseeable future; therefore, only wind energy potential is considered. See the Lands and Realty section of Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS for management actions pertaining to windpower and Section 3.6.3 for a discussion of existing wind energy development projects.

Comment: BLM should incorporate protective measures for oil and gas development activities (such as the Best Management Practices in Appendix 15) which are an important part of safeguarding the resources and values of this area. In the final plan, please clarify that these are required for development activities and ensure that they are retained, as well as strengthened to apply to a wide range of operations.

Comment: Energy developers need to use the best available technology to minimize impacts including directional drilling and underground injection of wastewater throughout the planning area. These are sensitive habitats for wildlife, and the legacy we leave should respect that.

Response: BMPs are innovative, dynamic, and economically feasible mitigation measures applied on a site-specific basis to reduce, prevent, or avoid adverse environmental or social impacts. BMPs are not one-size-fits-all situations. BMPs need to be adapted to meet the site-specific requirements of a particular project as well as the local environment. BMPs are incorporated into site-specific project proposals and supported by site-specific environmental analysis. The Rawlins RMP does not mandate BMPs for particular actions at the land use plan level but instead provides a range of BMPs that would be applied, where appropriate, at the activity plan or site-specific level of analysis. The Methods of Analysis sections under each resource heading in Chapter 4 of the FEIS contain assumptions that appropriate BMPs would be used to reduce the impacts of the various management actions under each alternative. BMPs will be applied as they are deemed to be necessary. BMPs and their applications are discussed in Appendix 15 in the Rawlins RMP FEIS.

Comment: The Rawlins RMP proposal to limit geophysical data acquisition work to existing roads is among the most serious errors. This proposal will have the effect of closing Federal lands to oil and gas exploration and development. Application of state of the art seismic data acquisition is the only effective tool for finding the remaining hard to find reserves. Remember, we have to look where the resources are, not where roads happen to be. If the seismic data cannot be acquired, the area cannot be explored or resources developed. We would like to know the source of this proposal. We and the public should know the actual name of the person that made such an impossible proposal. If adopted, oil and gas leasing should cease as well, because no company will be able to look for and find any oil and gas.

Comment: I am very concerned with what appears to be unreasonable restrictions on geophysical activities that discourage widespread use of the technology. Geophysical exploration is a one time use of the land that can provide valuable information. That information is useful to the oil and gas industry in determining where to drill as well as where not to drill thus having the net effect of reducing future impacts. Restricting Geophysical exploration is counter intuitive to the agency's goals of minimizing impacts to our land resources. This technology reduces the chance of drilling a dry well, an occurrence that yields zero benefit to the industry and to American consumers.

Response: Geophysical data provide an important information source for guiding exploration and development activities on the public lands. Certain mitigation measures are applied to geophysical activities to reduce the effects of geophysical data collection on other resources (wildlife, etc.) present. All lands open to oil and gas leasing consideration would also be open to geophysical exploration, subject to appropriate resource surveys, surface protection measures, adequate bonding, and state requirements

concerning safety and the plugging of drill holes. Geophysical activities are discussed in the Minerals section of Table 2-1, Detailed Comparison of Alternatives, and in Appendix 20, Oil and Gas Operations, in the RMP/FEIS.

Comment: The definition “Disruptive Activities” should be removed from the Preferred alternative and the RMP. Proposed restrictions on “surface disturbing and disrupting activities” imposed in conjunction with already existing or additional seasonal timing restrictions severely narrows operational windows. This definition should be removed because: 1. It places new and additional seasonal timing restrictions on cultural, wildlife and land surveys; 2. Delays production, increases cost of funding and developing energy, limits employment opportunities and diminishes operational consistency; and 3. Timing restrictions cause cyclical employment problems.

Response: The term or concept of disruptive activities as part of management actions and impact analysis considers the non-surface disturbing impacts of human activities conducted on the public lands. The use of the term disruptive activities as well as management actions, stipulations, and BMPs designed to reduce impacts from disruptive activities are not intended to preclude authorized activities but to influence how they are accomplished. Management actions to reduce disruptive activities in sensitive areas found in Appendix 15, Best Management Practices, are designed to reduce the impacts caused by continued human presence in areas of sensitive habitat or resources. This increased emphasis on disruptive activities is the result of monitoring results and professional opinion that increased human presence caused by increased industrial development and recreational activities has caused increased levels of stress to wildlife and increased avoidance of preferred habitat. See the updated definition of “disruptive activities” in the Glossary of the RMP FEIS.

Comment: I would like you to consider scaling back the amount of drilling and exploration that you allow.

Comment: I am vehemently opposed to oil and gas drilling in the Great Divide.

Response: The Mining and Minerals Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources. The federal leasing process is discussed in Appendix 20, Oil and Gas Operations, in the RMP FEIS.

Comment: The BLM’s proposal to place seasonal timing restrictions on activities such as cultural, wildlife and land surveys will only delay production and drive up the costs of finding and developing energy resources on this resource-rich land. These seasonal restrictions in other areas have proven to create cyclical employment within the oil and gas industry. Restrictions like these only make it more expensive for energy producers, which in turn needlessly drive up the costs of energy to consumers. What’s more, the BLM has not shown any evidence that temporary activities such as surveys cause any irreparable harm to the land or wildlife.

Response: The RMP/FEIS has been updated to clarify where oil and gas development is anticipated to occur. See Summary of Changes between RMP DEIS and RMP FEIS at the beginning of each chapter in the RMP/FEIS. The RMP/FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the RMP/FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of BLM public lands (Section 1.4, Relevant Statutes, Limitations, and Guidelines, in the RMP/FEIS) and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure

that resource values are protected while allowing for acceptable levels of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents. BLM manages the public lands under the general guidance mandated in FLPMA, which provides for managing the public lands and their various resources so that they are used in the best combination that will best meet the present and future needs of the American people. This direction indicates that not all uses need to be accommodated in all areas. The various alternatives discussed in Chapter 2 of the RMP FEIS reflect this provision. All areas are not slated to remain open at all times to all types of uses in the RMPPA. Access to some areas will be restricted at certain times of the year for the protection of various natural resources. Management actions for all resources are described in the various alternatives analyzed in the RMP FEIS, including those that provide protection of sensitive resources.

Comment: I am writing today to express my concern about a place within the proposed Great Divide Plan. Shirley Basin. I implore you to please consider not developing the location that geologists call Shirley Basin.

Response: Most development, based on oil and gas potential, is expected to occur in the western part of the RMPPA, primarily north and south of Wamsutter, Wyoming. Refer to Section 3.8.4, Mineral Resources, and Map 3-5, Oil and Gas Fields, in the RMP FEIS, which describe existing oil and gas fields in the RMPPA, and Section 4.1.4.4, Projections of Future Drilling Activity in the Mineral Occurrence and Development Potential Report, for the Rawlins RMPPA (USDI, BLM 2003b).

Comment: Whenever oil and gas development is pursued under the new RMP, it should employ available technologies in a way that minimizes damage to the environment. In areas where surface disturbance from drilling is appropriate (i.e., outside areas recommended for No Surface Occupancy, or “NSO” stipulations or withdrawal from leasing), directional drilling and other technologies should be employed in every case where they reduce the environmental impacts over conventional methods.

Comment: Deviated drilling must not be viewed as a panacea to resolution of land use conflicts because the utility of directional or horizontal drilling methods is limited in a number of ways. It must also be recognized that pad sizes associated with directional drilling of several wells from a single pad will exponentially increase to accommodate the additional well bores. While surface issues may give rise to considering directional or horizontal techniques, the federal land management agencies must recognize that these decisions can only be made with careful consideration to the many other factors that have an effect on a project’s viability.

Response: Directional drilling is one of the BMPs discussed in Appendix 15 of the RMP FEIS. BLM will consider directional drilling as one of many mitigation measures that could be used in the RMPPA. However, directional drilling is not always possible, given geology and certain technical issues. The drilling company in consultation with BLM ultimately decides the method of drilling.

Comment: It would be helpful to include a summary row that tabulates the total acreage by alternative open to leasing under all classifications. [Page 2-27, Section: Table 2.4]

Comment: pp. A18-2; 1st complete sentence, top of page Comment: The statement is made that “Threshold points for instigation of Office of Surface Mining (OSM) would include”. We are unclear why a reference is being made to OSM requirements, especially since the origin of this guidance is not provided in the DEIS nor is there any information relating where and how these guidelines were developed. The remaining paragraphs following this reference adequately describe the intent of this program. We would recommend the reference to the OSM standards and the associated bullets be removed from the FEIS.

Response: Thank you for your comment and your interest in the Rawlins RMP. All editorial, document content, and document adequacy suggestions will be reviewed, considered, and applied to the RMP/FEIS, where appropriate.

Comment: As a preface to Appendix 17, the Rawlins Field Office should summarize the Secretary of the Interior's "EPCA Inventory" and provide the information necessary to obtain a copy of the, Scientific Inventory of Onshore Federal Lands' Oil and Gas Resources and Reserves and the Extent and Nature of Restrictions or Impediments to their Development. The Rawlins Field Office should also provide the reader with a complete list of the conditions that must be met by the BLM before it issues a mitigation measure or management action. It is important to remember that, among other things, BLM issued mitigation measures or management actions must be "the least restrictive measure necessary to accomplish the desired level of resource protection."

Comment: Based on how the mitigation guidelines are presented in Appendix 1, it is impossible to determine whether the Rawlins Field Office integrated the EPCA Inventory. In other words, did the Rawlins Field Office verify that their mitigation guidelines are: Statutorily required or scientifically justifiable? The least restrictive measures necessary to accomplish the desired level of resource protection. Recommendation: If the Rawlins Field Office has integrated the EPCA Inventory into its management plan, it should make the statement that its mitigation guidelines are subject to the principles derived from the Inventory and are therefore statutorily required or scientifically justifiable and they are the least restrictive measures necessary to accomplish the desired level of resource protection.

Response: Section 604 of the Energy Policy and Conservation Act (EPCA) directed the Secretary of Interior to conduct an inventory, which identified reserve estimates of oil and gas resources underlying public lands and identified the extent and nature of restrictions or impediments to the development of these resources. The EPCA inventory was intended for use by land management agencies to identify areas of high resource potential and then to examine decisions that affect access to those resources. The resulting information could be used by both the public and land managers to assess the loss of oil and gas resources resulting from access limitations in conjunction with information concerning other resource values and the environment. Information generated from this inventory is integrated into the Reasonable Foreseeable Development (RFD) scenario used to predict future oil and gas exploration and development in the Rawlins RMPPA. EPCA information has been integrated into the RMP FEIS analysis and is discussed in the Executive Summary, in the Minerals section of Table 2-1, Detailed Comparison of Alternatives, and in Chapter 3 of the RMP FEIS.

Comment: Insufficient or inaccurate information exists in both the DEIS and the Technical Support Document to allow an accurate analysis of the emissions attributable to either coal bed natural gas or conventional oil and gas development. The estimates in Tables A4-5, A4-10 and 4-1 and Sections 4.2.2-5 overestimate potential emissions and I recommend using Universal Compression's 'Compressor Horsepower Selection Chart' and Wyoming State guidelines.

Response: See changes made in Section 4.2.2 and associated tables in the RMP FEIS.

Comment: I am concerned about the definition of "intensive management" contained within the plan and the current condition that this form of management would be used in certain areas in order to reduce or eliminate impacts. This is so broadly defined, I'm sure you can understand my concern that "eliminate impacts" could end up meaning "no oil and gas development allowed" in the long run. This wording could certainly be clearer and I can attest that the oil and gas industry would greatly appreciate a thorough re-look of these issues.

Comment: The BLM states that “intensive management” will be applied to oil and gas activities to mitigate numerous environmental impacts, but fails to identify the intensive management options that would be applied to various areas. Mitigating so that sensitive resources are “maintained or enhanced” could imply no impacts will ever be allowed to occur. Without a clear understanding of “Intensive Management” and its use, this consideration should be deleted from the Preferred Alternative and from the RMP revision.

Response: “Intensive management” is basically a broad characterization of the need for various mitigation measures that could be applied in an area or to a management action where many conflicting resources may be present and mitigation of impacts to these resources may be complex and fairly restrictive. It does not imply a specific set of management directives for an area. The definition of “intensive management” has been expanded in the Glossary of the RMP FEIS to include additional reference to various appendices that contain BMPs important to support the management actions in Chapter 2 that refer to intensive management. The definition has also been expanded to clarify how the application of intensive management would influence on-the-ground actions to reduce or eliminate impacts while allowing the authorized action to occur.

Comment: Please revise the proposed RMP to fully allow access for mineral exploration, drilling, mining and production from the federal lands as our nation needs these resources for its continued well being.

Comment: I am very worried about excessive continued and proposed development in this area, creating new roads and up to 9,000 oil and gas wells. I don't want to see this happen all over the Great Divide. I believe it is vital to keep this area friendly to antelope, elk, sage grouse, foxes, coyotes, and other creatures that were here first. We must be committed to protecting these great wild creatures.

Response: The Rawlins RMP FEIS evaluated a range of alternatives recommending a balanced approach that ensured protection of resource values while allowing opportunities for mineral and energy exploration and production. The management actions contained in the Proposed Plan in the RMP FEIS allow for mineral and energy exploration and production while protecting other resource values. Any future mineral exploration and development proposals will require additional NEPA analysis. Lands that were found to possess wilderness qualities under the existing Great Divide RMP continue to be managed under the wilderness IMP which precludes new oil and gas leasing. WSAs will not be subject to future leasing unless released from wilderness consideration by Congress.

Comment: [Please consider prior to publication of the FEIS that]...The DEIS allocation of 8,822 wells for the next 20 years is not sufficient to meet development and exploratory needs over the next ten years, much less the next 20 years, and will not maintain or grow current natural gas production rates nor will it assist in meeting the anticipated increase in demand for natural gas contemplated in the Energy Information Administration's Outlook 2005. Rather than designating the number of wells that can be drilled over a time frame, consider designating the number of well pads, taking into account new drilling technology that exists today and future technology that will be developed to allow for directional and horizontal drilling of incremental wells from existing well pads.

Response: BLM has included a summary of the analysis of oil and gas reasonably foreseeable development in Appendix 20, Oil and Gas Operations. The analysis considers all of the current opportunities and constraints to the amount of drilling that can actually be accomplished (e.g., rig availability). BLM incorporated information and projections provided by the oil and gas industry into the oil and gas RFD. Twenty-three companies were contacted, and 13 responded concerning their opinion about what development activity would occur during the next 20 years. Factors considered to project future activities include (but are not limited to) a review of published oil and gas resource information for the area, future oil and gas price estimates, petroleum technology research and development, geophysical

activity, bid performance on lease sales, limitations on access, and infrastructure. See discussion of the RFD in Appendix 20, Oil and Gas Operations, in the RMP FEIS.

Comment: Drilling in Adobe Town, Wild Cow Creek, The Pedro Mountains, Powder Rim and Ferris Dunes should be rejected!

Response: Oil and gas leasing and drilling will not occur in existing WSAs. The proposed plan allows for oil and gas exploration and development to occur with appropriate mitigation measures and BMPs in the majority of the RMPPA. Actual exploration and development are anticipated to occur in high and moderate oil and gas potential areas.

Comment: We in the oil and gas industry would appreciate it if you would ensure that mitigation is either statutorily required or scientifically justifiable before you implement something like the current disruptive activities definition. Also remember to make sure these mitigating factors are the least restrictive measures required.

Response: The Rawlins RMP FEIS contains sufficient data necessary to meet the requirements of both NEPA and FLPMA, and internal BLM guidance for a land use plan level document. The lack of specifics found in many impact analyses throughout the document are not a function of BLM's lack of consideration of science, but a lack of knowledge concerning specific project details at the planning level of analysis. As indicated in the introductory portions of the FEIS, the purpose of the RMP is to provide a broad comprehensive framework for managing and allocating public resources in the Rawlins RMPPA. The impact analysis in Chapter 4 has been updated in the RMP FEIS.

Comment: CBM fields can have a much higher density of wells than occurs in conventional gas fields. Consequently, issues such as habitat fragmentation, outright loss of habitat, and impacts to visual resources are magnified. Because of this, the RMP must ensure that the unique impacts of CBM development are evaluated prior to leasing, and that such analyses do not simply duplicate the analyses done for conventional gas fields. As noted above, recent Interior Board of Land Appeals and Tenth Circuit Court of Appeals decisions require consideration of the unique impacts of CBM development. The EIS ignores the potential for unique impacts due to CBM development.

Comment: CBM development can lower water tables, which has widespread implications and therefore these issues must be addressed in the EIS. If produced waters are not reinjected, potential effects on agriculture must be considered. Dewatering coalbeds can increase the likelihood of difficult-to-control coal seam fires. Seepage of methane and its effects on vegetation, water (including domestic water and aquifers), and even the safety of people's homes must be considered. Again, the RMP must ensure these impacts are prohibited or mitigated. The EIS fails to consider any of these issues.

Response: Decisions about managing oil and gas resources on public lands are made at two general levels. See Section 1.3, Overview of the BLM Planning Process, in the RMP/FEIS. Management planning–level decisions include leasing decisions that ultimately result in issuance of oil and gas leases, with the expectation that some exploration or development activity may be proposed at some time in the future. Activity planning or project-level decisions encompass exploration and development decisions that result in ground disturbance with wells, roads, and associated infrastructure. Site-specific analysis cannot be accomplished until the BLM receives a specific project proposal for consideration, so more specific analysis is not necessary at the leasing stage.

Comment: I would like to express my support for energy development in the Great Divide region south of Rawlins. As a sixth generation resident of Wyoming I welcome the opportunity to have work and earn

a living here. Your proposal gives residents of our state these chances. The 9000 wells you have proposed in this region would do little if any harm.

Comment: I would be far more inclined to financially support research for alternative fuel sources, than the constant despoiling of our rapidly-shrinking wildlands.

Comment: Then noise level of compressors should be strictly regulated. And, more timely reclamation should be required to forestall infestations of weeds, blowing dust and sedimentation into riparian areas.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: BP also believes that it is critical that BLM use total long term disturbance, not well count, as the determining factor in assessing future impact thresholds for the RMPPA. In addition, if companies are willing to perform offsite mitigation within the RMPPA area, including habitat enhancement, then this approach should also be used in crediting these activities for total net long term disturbance over the life of the plan. Therefore, the RMPAA ROD should place an emphasis on total long term disturbed acreage as the determining factor in assessing thresholds of significance for the life of the planning document.

Comment: We also realize that surface disturbance for all oil and gas related activities may exceed the total of 15,472 acres of long term disturbance analyzed in the RMPPA for the preferred alternative. However, BP believes that over the life of the RMPPA surface disturbance will continue to be reduced as BP and others in industry identify and implement technologies that can further reduce the environmental footprint. This factor should be included in any decision regarding the RFD and whether the RMPPA should be revised.

Response: The fact that the total number of wells in an area may exceed the total number of wells projected in the selected alternative does not automatically mean that a supplement to the NEPA document or a revision or amendment to the RMP is necessary. It is possible that exceeding the number of wells projected in the selected alternative may not result in exceeding the predicted level of environmental effects. Mitigation of environmental effects through successful reclamation, clustering wells on shared well locations, and minimizing pad and road construction can prevent the level of impacts from substantially exceeding the impacts as analyzed in the original RMP/EIS or other NEPA documentation.

Comment: The BLM should not impose restrictions that by their cumulative effect, limit an operator's ability to develop their respective leasehold for more than six (6) months per year.

Comment: Page 2-9: "Oil and gas lease stipulations may be modified or eliminated using the exception, modification, or waiver criteria outlined in this RMP (Appendix 9) or through more site-specific environmental analysis. Those stipulations that are either too restrictive or too lenient to accomplish the desired resource protection would be changed if monitoring or new scientific data justify the change. Clarifying changes may be made to the wording of oil and gas lease stipulations as long as there is no substantial change to the mitigated protection, as justified by new scientific data or monitoring".
Comment. This assumption is incorrect because it fails to acknowledge that valid existing rights are associated with a lease contract. We presume this misstatement is a reflection of the BLM contractor's lack of understanding of the laws and regulations applicable to existing Federal leases. BLM has no authority to change stipulations or the terms of the lease contract unless it obtains voluntary agreement from the lessee. Moreover, the agency's authority to impose conditions of approval on a proposed project is also limited by the terms associated with the issued lease, as directed in 43 CFR 3101.1-2, Surface Use Rights.

Response: BLM recognizes valid existing rights. Lease stipulations are part of the lease contract that BLM enters into with the lessee; the lease terms (stipulations) cannot be changed. Federal oil and gas leaseholders are notified of any lease-related stipulations or mitigating restrictions prior to the issuance of any lease. The exception, waiver, and modification procedures described in Appendix 9, Exception and Waiver Criteria, can be used to negate the applicability of the lease stipulations one time, for a limited period, or forever, and should be considered when warranted to potentially allow a leaseholder to develop their lease. The regulations at 43 CFR 3101.1-2 describe what reasonable measures BLM can take, while at the same time not violating lessee rights, to protect other resources and resource users. Such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specifying interim and final reclamation measures. Measures shall be deemed consistent with lessee rights provided they do not: (1) require relocation of proposed operations by more than 200 meters, (2) require that operations be sited off the leasehold, or (3) prohibit new surface disturbance operations for a period in excess of 60 days in any lease year. Through the RMP process more (new or modified existing) lease stipulations can be developed that would become applicable to any new leases issued after the Record of Decision (ROD) is signed and the RMP becomes final.

Comment: For years BLM has been systematically leasing huge tracts of “public” land for mineral development before conducting environmental analysis of the impacts that would occur if these leases were developed. When others and I questioned management about this practice, we were falsely assured that the impacts would be addressed before development was permitted. But when plans for development were proposed, “often in very special places,” we were told that BLM’s options in addressing these impacts were limited. Since, these companies already “held a lease;” they had a legal right to develop in even the most special places. What happens to your credibility when something like this happens? It would have been so much better to have sold leases in an incremental way. Impacts could have been more manageable and much less damaging to the resources on the land. So while this Resource Management Plan is a critical document, the previous scenario ensured that de facto decisions were already made about land use management.

Comment: With regard to energy development transportation access routes, we recommend against developing a road between the Atlantic Rim drilling pod and the Doty Mountain Drilling pod that allows direct access between the Doty Mountain Pod and Rawlins via the 20-mile road. Creation of this travel route would likely bisect the critical section of habitat in the upper Muddy Creek watershed where the stronghold population assemblage of bluehead suckers, flannelmouth suckers and roundtail chubs currently exist. We recommend avoiding the aquatic wildlife impacts previously mentioned by providing a more preferred transportation route to the Doty Mountain pod from the west via Highway 789.

Response: Decisions about managing oil and gas resources on public lands are made at two general levels. Plan-level decisions include leasing decisions that result in issuance of oil and gas leases with the expectation that some exploration or development activity may be proposed at some time in the future. Project-level decisions encompass exploration and development decisions that result in ground disturbance with wells, roads, and associated infrastructure. The Draft RMP/EIS evaluated a range of alternatives recommending a balanced approach that ensured protection of resource values while allowing opportunities for mineral and energy exploration and production. The management actions contained in the Proposed RMP/FEIS allow minerals and energy exploration and production while protecting other resource values. Impacts from proposed mineral exploration and development projects will require additional NEPA analysis. The land use planning process and associated NEPA compliance results in a decision that lands are open or closed to oil and gas exploration and development.

Comment: For areas where surface disturbance is permissible, drilling activities should occur in a staged manner, allowing landscapes impacted by wellfields to heal at the same rate as new landscapes are gobbled up. While staged development would at first appear to be a difficult program to implement, we

have devised a simple method to facilitate this process. The BLM should first identify all parcels of 3,000 acres or more that are free of “roads” as defined under BLM Handbook H-6310-1, regardless of the presence or absence of wilderness qualities. This alternative would require a “No Net Loss” policy to be instituted for these qualified roadless areas, so that new roadless areas could not be entered for the purpose of road building and oil and gas development until a similar acreage already impacted was restored to “roadless” status.

Comment: The BLM should also consider an alternative that would require phased development of the Field Office as far as oil and gas is concerned. We recommend that such an alternative would be best implement at the leasing stage, so that complex unitization issues need not impede the process. We see this as a strong possibility in terms of sustainable management of oil and gas resources, and well worthy of the BLM’s detailed consideration in the Rawlins RMP EIS process.

Response: Authorization to conduct oil and gas exploration and development activities is granted through a leasing process. Lease acreage for a single oil and gas lease can consist of anywhere from 40 to 2,560 acres for competitive leases and up to 10,240 acres for noncompetitive leases. When a single lease offer is put together, an attempt is made to keep all of the separate parcels (seldom is one single 2,560-acre parcel leased) within an area the size of a single township. The lease, assuming annual rental payments are made, expires after 10 years. Leases that expire or are “let go” for whatever reason get compiled into new lease offers. The lease can be held for an extended period, as long as mineral production is maintained. The lessee shall have the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove, and dispose of all the leased resource in a leasehold subject to: stipulations attached to the lease; restrictions derived from specific, nondiscretionary statutes; and such reasonable measures as may be required by the Authorized Officer to minimize adverse impacts to other resource values, land uses, or users not addressed in the lease stipulations at the time the operations are proposed. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures are deemed to be consistent with lease rights provided they do not (1) require relocation of proposed operations by more than 200 meters, (2) require that operations be sited off the leasehold, or (3) prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). Thus, a major problem with respect to the use of “staged” development is the potential violation of lease rights. Legal mandates require that lease sales be held at least quarterly. Policy dictates that public lands be kept open to mineral exploration and development, unless closure or restriction is mandated by Congress or can be justified in the national interest (BLM Manual 3031.06A). The current leasing system has been in place, with minor modifications, for several decades. Lease ownership is often fragmented and scattered across the public lands. Although “staged” development might be attempted in a limited area where leases are set to expire, its application to the public lands in general would require a complete overhaul of the current leasing system. This is outside the scope of the RMP FEIS. If this could be accomplished, it would predictably take a long time. Requiring drilling activities to occur in a “staged” manner is not a feasible alternative.

Comment: All sensitive lands outlined in this alternative where oil and gas development is restricted to No Surface Occupancy stipulations or recommended for withdrawal from leasing should also be withdrawn from suitability for coal extraction under SMCRA. In addition, where coal mining is permitted, underground mines should be the first option and strip mines should not be permitted in cases where underground extraction is possible.

Comment: In its coal development mitigation guidelines, BLM proposed to allow strip mining on crucial big game winter range as long as “appropriate mining methods” achieve a “long-term balance between habitat and coal development.” DEIS at A2-13. In addition, coal mining would be allowed as close as ¼ mile from sage grouse leks, and as close as ½ mile from leks during the breeding season. DEIS at A2-14.

Thousands of acres of crucial winter range as well as known sage grouse breeding and nesting areas are contained within tracts which would be eligible for offering for strip mining. See DEIS at A2-13. There is no reason to believe that strip mining is in any way compatible with the maintenance of crucial big game winter range or sage grouse breeding habitats; all crucial winter ranges and areas within 3 miles of sage grouse leks should be declared unsuitable for mining and withdrawn from coal leasing.

Response: Prior to any lease being offered, the Coal Unsuitability Criteria would be applied, and a leasing EIS would be completed. See Appendix 2, 2003 Coal Screening Process Summary. The lease EIS is the appropriate step in the permit approval process to evaluate potential alternative mining methods and appropriate mitigation and reclamation procedures.

Comment: In reading your preferred alternative I was struck with the lack of comprehensive detail on wind energy. I would suggest the potential impact of such development in the Great Divide Basin could seriously impact the entire Great Divide resource area. I respectfully request you consider what is happening in Uinta County with the Bridge Butte Energy Center. I bring this to you attention because I believe this process will be duplicated across Wyoming and the West, as suggested in the BLM draft EIS on wind energy. Please consider more fully the impact of wind energy development and transmission in your RMP. This is not something that is going to happen, it is already happening.

Comment: The Rawlins Field Office has excellent wind energy potential, yet the BLM eliminated significant areas from consideration for wind energy development. I ask that you reconsider your decision and maximize wind energy development potential to help diversify our energy reserves.

Comment: The surface footprint of wind energy development is as severe or more severe than oil and gas development. For this reason, it is important to be just as careful with the siting of wind power arrays as the BLM ought to be (but currently is not) for oil and gas development. Following USFWS guidance, the BLM should not site wind turbines within 5 miles of sage grouse leks. In addition, wind turbine arrays should not be sited in mountain plover nesting concentration areas or in the viewsheds of wilderness study areas or VRM Class II or I lands as outlined in these comments. Wind turbine sitings have resulted in both relatively high impacts (e.g., the Arlington array's impacts on plovers) and relatively low impacts (e.g., Evanston) in Wyoming. We encourage the BLM to examine both maps of wind energy potential, the Heart of the West Wildland Network Design (Attachment 28) – siting developments only in Compatible Use Areas, and avoidance of sage grouse leks and raptor migration routes and important viewsheds to most effectively minimize the impacts of wind turbine arrays while maximizing the benefits of clean, renewable energy.

Response: Map 2-33, Utility/Transportation Systems Avoidance Areas for the Proposed Plan has been updated in the RMP FEIS to add additional avoidance areas inadvertently left off the map. The Lands and Realty Section of Table 2-1, Detailed Comparison of Alternatives has been updated in the RMP FEIS to provide additional clarification of the Alternative Energy Development-Wind Energy Resources Management Action. Wind energy development would not be allowed in avoidance areas under any alternative in the RMP FEIS except within the checkerboard lands. Wind development within avoidance areas in the checkerboard would be considered on a case-by-case basis in coordination with wind development proponents, the private landowner, the BLM, and other affected interests to form the most logical development plan within the checkerboard lands. By its very nature, wind energy development is one of the most visually and environmentally intrusive management actions authorized on the public lands. The BLM understands the necessity to balance the need for alternative energy production with the loss in value of lands supporting wind energy development projects for many other resource uses.

Comment: At this time, Carbon County can not accurately assess, endorse, or reject the Preferred Alternative proposed by the EIS. The information provided in the EIS regarding the potential for

development of coalbed natural gas, which is a large and fast-developing mineral resource in the management area, is insufficient to forecast the foreseeable effect of that development. Accompanying this letter is information regarding the magnitude of this development (Geology). In our opinion, this is the type of information needed in the Chapter Entitled "Affected Environment" to aid in the assessment of impact. In addition to a more complete description of the mineral resource than is currently provided, a more complete discussion of mineral extraction procedures and activities is needed to assist in the assessment of impact.

Comment: In considering oil and gas development potential in the RMP area, BLM should address the viability of recovering oil and gas from existing-proven-fields as opposed to creating new fields where the oil and gas potential is less known. In our view, it is appropriate from economic and environmental perspectives for BLM to favor development in existing fields and discourage it or prohibit it in undeveloped areas, especially in areas with other important resources. See 43 U.S.C. § 1732(b). Yet the EIS fails to consider this important option for managing oil and gas development, just as it fails to consider the option of phased development.

Response: Decisions about managing oil and gas resources on the public lands are made at two general levels. Plan level decisions include leasing decisions that result in the issuance of oil and gas leases with the expectation that some exploration and development activity may be proposed at some time in the future. Project level decisions encompass exploration and development decisions that result in ground disturbance with wells, roads, and associated infrastructure. More specific analysis cannot be accomplished until one has a specific project to look at, so more specific analysis is not necessary at the leasing stage. A description of "oil and gas operations" is found in Appendix 20. See the oil and gas potential map referenced in Section 4.8 of the Rawlins RMP FEIS. It is assumed that areas mapped as high and moderate potential will have exploration and development activities occur.

Comment: The BLM NEPA Handbook requires BLM to identify the purpose and need of the project being analyzed. BLM Handbook H-1790-1.V.B.e. While the purposes and needs for the RMP are broadly defined by the FLPMA and other law, BLM failed to give specific attention to the purposes and needs for oil and gas related activities that were analyzed in the EIS. BLM failed to address in detail what the purpose of future leasing is. It failed to consider what the purpose of future potential exploration and development activities would be. It failed to consider phased development of oil and gas. These considerations should have been made with explicit recognition of the relative value of the RMP area for meeting local, regional, and national energy needs and what alternatives exist for meeting those needs locally, regionally and nationally. The relative value of the area for meeting energy needs versus supplying environmental amenities/needs was not adequately discussed or considered in identifying the purpose(s) and need(s) of oil and gas development. Similarly, identification of where specifically oil and gas leasing, exploration, and development is appropriate and inappropriate in the RMP area, and why, was not addressed in the EIS as part of the definition of the purpose and need for the RMP.

Comment: (As noted above,) consideration of oil and gas development potential in the RFO area must address potential oil and gas reserves/resources from the standpoint of economically recoverable resources and not just technically recoverable resources. The purpose of the RMP is to guide actual management actions for approximately 10 years; oil and gas extraction activities will be largely driven by real world economics, not by technical feasibility, which only sets a theoretical outer boundary to the actual level of development. It would, of course, be appropriate and useful for BLM to address economically recoverable oil and gas resources from the standpoint of "high" and "low" price scenarios.

Response: The Mining and Minerals Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources. This act

includes all minerals, including sand and gravel, geothermal, coal, and oil and gas. The Federal Land Policy and Management Act of 1976 reiterates that the 1970 Mining and Minerals Policy Act shall be implemented and directs that public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources. FLPMA also provides for improved inventory, planning, and decision processes. The BLM recognizes that public lands are an important source of the Nation's mineral and energy resources, some of which are critical and strategic. BLM is responsible for making public lands available for orderly and efficient development of these resources under principles of balanced multiple use management; and, the concepts of Sustainable Development as defined at the World Summit on Sustainable Development in 2002. Some of the principles which guide BLM in managing mineral resources on public lands include: 1. Except for Congressional withdrawals, public lands shall remain open and available for mineral exploration and development unless withdrawal or other administrative action is clearly justified in the national interest, or to protect the health and safety of the public. 2. BLM endorses the Sustainable Development Plan of Implementation applicable to mineral resources, signed by 193 countries in 2002, including the United States, which calls for Social, Environmental and Economic considerations before decisions are made on mineral operations. 3. BLM actively encourages and facilitates the development by private industry of public land mineral resources in a manner that satisfies national and local needs and provides for economically and environmentally sound exploration, extraction, and reclamation practices. 4. BLM's land use plans and multiple use management decisions will recognize that, with some exceptions, mineral exploration and development can occur concurrently or sequentially with other resource uses.

Comment: The DEIS states that the BLM may in some cases require the lessee to drill a well to reduce drainage of federal mineral resources to wells on adjacent state or private lands, and may also compromise sensitive surface resources to do so. DEIS at A20-5. This is a dangerously wrongheaded and counterproductive policy, and runs contrary to the public interest. In authorizing oil and gas development on federal lands, the BLM typically cites the nation's energy appetite as the primary purpose and need behind the proposed drilling. Drainage to an off-site state or private well meets this purpose and need admirably, with zero or minimal damage to the public lands and resources managed by the BLM. Furthermore, any indirect benefit to the public deriving from drilling on public land is limited to federal and state royalties paid as a result of the production of the well, not the values of gross well production, which is mostly pocketed by private corporations with no direct benefit to the public at large. As a result, the costs incurred by destroying wildlife habitat, landscapes, and air and water quality to drill a well to prevent drainage will almost always be greater than the indirect benefit of any microscopic tax relief that might (or might not) ultimately be enjoyed by the public. Thus, in a drainage situation, BLM should undertake a thorough cost-benefit analysis, weighing the royalties being lost against the heavy environmental price of drilling the well. If the costs outweigh the benefits, as they will in most cases, the drilling of the well should be discouraged instead of required.

Response: Drainage of public mineral resources by a well located on adjacent private lands constitutes theft of a public resource. Specific legal mandates do not allow such a situation to continue after it has been discovered.

Comment: Reclamation of all surface disturbances should be performed immediately in order to prevent invasion of noxious weeds and invasive species.

Response: BLM monitors all development activities on the public lands. Final reclamation of active wells, access roads, range projects, and all associated facilities, etc., on BLM-managed lands cannot be initiated until they cease production or are no longer needed. Areas disturbed during drilling operations, but not needed during the production phase, are reclaimed as soon as possible after the drill rig moves off the site. When oil and gas wells cease production, they are plugged according to federal and state standards and the well locations are recontoured and reclaimed to their previous condition prior to the

wells being drilled. Currently there is no regulation or guidance that makes new development contingent on reclamation of older disturbance; however, current policy does require diligent efforts at interim reclamation of disturbed areas during the production phase of development, until wells cease production and final reclamation can be initiated. Pipelines are reclaimed as soon as construction is complete. See Appendix 17, Monitoring and Evaluation, in the RMP/FEIS for a discussion of BLM monitoring activities on public lands and Appendix 19, Vegetation Treatments, Forest Practices, and Range Improvements, in the RMP/FEIS for a discussion of noxious and invasive weed treatment and control within the RMPPA. Appendix 36, Reclamation Plan, describes the practices and procedures followed to reclaim all surface disturbances.

Comment: The natural gas industry is already operating in a sea of restrictions that impede its ability to produce an effective service. Please take the time to carefully analyze the adverse impacts the BLM would have on the natural gas industry by introducing these restrictions into the Rawlins plan. One restriction of particular concern is the BLM's proposal to place seasonal timing restrictions on activities such as cultural wildlife and land surveys. [T]his will harshly delay production and drive up the cost of finding and developing natural gas and other resources that are valuable to our economy.

Response: The BLM implements seasonal timing restrictions to protect wildlife species and associated habitat that is critical for the survival of these species. Winter is a critical period for most wildlife species; available food sources are low in contained energy needed to sustain life during cold periods when additional energy is needed to maintain metabolic functions. Additionally, females of many species are carrying young, which increases their energy demand. Disruptive activities that result in an increased amount of human presence, noise, vehicle traffic, etc., place additional demands on wildlife, forcing them to use additional energy resources to avoid those areas where these factors are present and potentially forcing them to use lower quality habitat. As cold temperatures start to warm in the spring, most wildlife species, still in a weakened state after making it through the winter, must take care of necessary tasks associated with bearing and raising their young. The effects of winter survival on many wildlife species are well documented in the scientific literature. Although seasonal restrictions and overlapping seasonal restrictions pose limits to oil and gas development, they are necessary to preserve the diversity of wildlife species present in the area. Changes in oil and gas production for each alternative, resulting from application of seasonal restrictions and mitigation measures, are discussed in Chapter 4 of the Rawlins RMP FEIS.

Comment: Table A35-1 (p. A35-4) assumes a completion rate of 90% for all gas wells in the RMPPA. Exploratory wells are successful nationwide less than 50% of the time, and development wells (those drilled in the vicinity of successful exploratory wells) have a success rate of about 89%. Please provide data and other documentation of the success rates of exploratory and development wells in the RMPPA, and the state of Wyoming, and adjust the assumptions used to reflect these varying success rates.

Response: Success rates are projected to be higher within the RMPPA, since the majority of new wells would be field development or infill wells. See the oil and gas Reasonable Foreseeable Development Scenario for Oil and Gas for this area available on the Rawlins Field Office website under Planning.

Comment: We acknowledge that the EIS addresses energy development topics of oil/gas development, but observe that the draft EIS seems to under-emphasize the equally important energy development needs of electrical generation and transmission. As a general matter, PacifiCorp believes that the EIS and RMP should better emphasize and promote issues related to electrical energy development, particularly given the importance of the RMPPA in providing access for the continued supply of the electrical energy needs in Wyoming and throughout the west.

Response: The RMP FEIS has adopted the programmatic policies and BMPs identified in the ROD for the Programmatic Environmental Impact Statement (PEIS) on Wind Power Development on BLM Administered Lands in the Western United States. Decisions in that PEIS will be amended to the RMP.

Comment: ES-3 Alternative 2 (Development of Resources), Statement: “This alternative emphasizes development and intensive management, while placing less emphasis on environmental protection.” (Emphasis added). This implies a lessening of environmental protection where in most cases, analysis does not mandate additional environmental protection from development. If this alternative emphasizes “intensive management” (see definition below), how can this alternative be deemed less environmentally protective? INTENSIVE MANAGEMENT. Management that includes the use of proper distance restrictions, mitigation stipulations, seasonal or timing restrictions, rehabilitation standards, reclamation measures, use of best management practices (see Appendix 13), and the application of the Wyoming Mitigation Guidelines for OVER 30 YEARS OF PROFESSIONAL INTEGRITY Surface-disturbing and Disruptive Activities (Appendix 1) to adequately protect the resources for which the intensive management is applied. Intensive management actions would be applied with the goal of maintaining or enhancing sensitive resources (i.e., plant communities, wildlife habitats, soils, water, archeological or paleontological resources, etc.). Management may include attaching conditions of approval to specific projects or additional planning recognizing the unique resources for which the area is managed; typically these would be more restrictive than standard management and would be designed for specific projects and locations. Recommendation: This alternative should be re-defined as environmentally protective.

Response: Alternative 2 does provide for fewer timing restrictions, areas closed to leasing, etc., so this alternative is less restrictive, which translates into a higher RFD figure for, as one example, oil and gas wells and surface disturbance. Even so, there are still legal mandates to protect and manage other resources, so as to provide for multiple use of the public lands.

Comment: The use of two tracks for access to well sites as an alternative to engineered roadways should be used to the maximum extent possible. Engineered roads cause much greater impacts in terms of habitat fragmentation, loss of wildlife due to collisions with vehicles (engineered roads allow higher speeds), and erosion and sedimentation when compared with two-track vehicle routes.

Response: Allowing heavy vehicles to travel on unimproved vehicle routes over time, especially when soils are saturated, destroys soil structure and creates ruts that channelize overland flows and increase erosion. The erosion is much higher than if roads are engineered with drainage ditches and a gravel surface to reduce erosion. Roads that are no longer needed are reclaimed.

Comment: The primary concern that runs throughout this document is that new restrictions and mitigations are placed on oil and gas activity without analysis and proof that they are either statutorily required or scientifically justifiable. The assumption appears to be that oil and gas activity is always damaging and is irreversible, yet the anti-industry groups all claim this area to be pristine. There are over 3000 wells in the area now and wildlife, recreation and cultural resources all seem to be faring well. This living model is proof that oil and gas is ephemeral and leaves the environment for all to enjoy.

Response: Mitigation measures that are presented in the RMP FEIS were developed from scientific information, knowledge, and experience of resource specialists and technical experts at all levels of BLM, with input from industry, as well as other state and federal agencies. When extractive uses of the public land are authorized with appropriate stipulations, mitigation measures, and BMPs, impacts to sensitive resources are not permanent, and their influence and visibility on the land decrease through time.

Comment: Given the fact that the potential for oil and gas development is virtually nonexistent for this area, it is a real mystery why the BLM has failed to consider the Pedro Mountains for mineral withdrawal

and withdrawal from future oil and gas leasing in even one alternative. To fail to protect this area at a time when the long-term public benefits of protection can be achieved without controversy seems foolish. The BLM should absolutely put the strong measures outlined above in place to protect this magnificent mountain range from future degradation. [See supporting info]

Response: The Pedro Mountains are managed as a Special Recreation Management Area under the Proposed Plan. The Pedro Mountains are open to oil and gas leasing with an NSO stipulation and the entire SRMA is managed for recreational opportunities and aesthetic values. As with all lands under BLMs management, the area is managed for multiple resources, with an emphasis on the recreational values of the area. The Pedro Mountain area was withdrawn from mineral location in the DEIS in both Alternatives 3 and 4; but the area would not be withdrawn under Alternative 4 in the FEIS. BLM determined the management actions are sufficient to protect the resources in the area while allowing for appropriate levels of activity and use. See revised management actions in the Recreation and Visitor Services section of Table 2-1 in the RMP FEIS.

Comment: Pitless drilling permits smaller well pads and eliminating toxic reserve pits filled with toxic chemicals. In cases where this and other state-of-the-art technology reduces the overall environmental impacts, it should be required under the RMP.

Response: Use of tanker trailers on the well sites, instead of use of reserve pits to contain drilling fluids, may not result in smaller well pads. Drilling fluids would need to be hauled in using tankers, which require a fair amount of space to maneuver on the well pad. Drilling fluids generally consist of water and bentonite associated with well cuttings and generally do not contain “toxic” constituents. “Frac” fluids used to increase fluid flow from the producing formations do contain a wide variety of chemicals. These fluids are contained on the well site in tanks and generally number from about 16 to 20 and require a fair amount of space on the well pad. Pitless drilling, as discussed in Appendix 15 in the Rawlins RMP FEIS, is an optional BMP that can be used in some situations.

Comment: Current VRM Class II standards do not comport with directives to retain the existing character of the landscape. See DEIS at A25-1. All Class II areas should have a requirement to cluster wells and facilities through directional drilling to minimize the visual scars of roads and wellpads. Condensate should be pipelined out of these areas (eliminating unsightly condensate tanks, which are eyesores). Two-tracks should be used for access routes, and wellpads should be reclaimed to a natural appearance during the production phase.

Response: Directional drilling is considered where possible and is one of many mitigation measures identified in Appendix 15, Best Management Practices. However, directional drilling is not always possible, given geology and certain technical issues. Allowing heavy vehicles to travel on unimproved vehicle routes over time, especially when soils are saturated, destroys soil structure and creates ruts that channelize overland flows and increase erosion. The erosion is much higher than if roads are engineered with drainage ditches and a gravel surface to reduce erosion. Roads that are no longer needed are reclaimed. The RMP FEIS evaluates a range of alternatives, recommending a balanced approach that ensures protection of resource values, while allowing opportunities for mineral and energy exploration and production.

Comment: In light of the threat of the West Nile Virus and the inevitability of its spread throughout the RMPPA, BLM has an affirmative responsibility to ensure that actions permitted under the Rawlins RMP do not contribute to an elevated risk of West Nile Virus to both sage grouse and humans. Thus, BLM must not permit to construction of wastewater reservoirs associated with coalbed methane development. If surface discharge is to be allowed under any circumstance (and we recommend against this course of

action), wastewater should not be allowed to stagnate in ponds. In addition, BLM must require measures to prevent mosquito breeding in the reserve pits of conventional oil and gas wells.

Response: BLM will apply appropriate mitigation measures as needed to reduce environmental impacts associated with CBNG development.

Comment: In the past, BLM has argued that it has not exceeded the RFD scenario if well numbers are exceeded but acreage of disturbance RFD figures have not been exceeded. This is misleading because some NEPA analysis (such as air pollution of hydrocarbons) are linked to number of wells drilled but are independent of acreage of surface disturbance. The RMP should include a standard that explicitly commits the agency to supplemental NEPA (i.e., an RMP Amendment) before wells above this RFD figure can be approved.

Response: The fact that the total number of wells in an area may exceed the total number of wells projected in the selected alternative does not automatically mean that a supplement to the NEPA document or a revision or amendment to the RMP is necessary. It is possible that exceeding the number of wells projected in the selected alternative may not result in exceeding the predicted level of environmental effects. Mitigation of environmental effects through successful reclamation, clustering wells on shared well locations, and minimizing pad and road construction can prevent the level of impacts from substantially exceeding the impacts analyzed in the original RMP EIS or other NEPA documentation.

Comment: DEIS at 4-265. Given the fact that oil and gas development is the primary threat, the fact that these activities pose major habitat fragmentation and disturbance impacts on wildlife habitat (Ibid.), and the fact that a six fold increase in the rate of oil and gas development over the Great Divide RMP is anticipated under the new Rawlins RMP, a fundamental change in the way oil and gas development proceeds is need under the new RMP. Continuation of existing management at a much more intensive scale will result in major environmental disasters, perhaps even the collapse of entire ecosystems. This is not a legally or ethically acceptable outcome. Thus, the BLM must develop alternatives that actually minimize the impacts of oil and gas development, and implement such alternatives in the Rawlins RMP.

Response: The only types of things that might cause the collapse of ecosystems and major environmental disasters are catastrophic events, such as volcanic eruptions, meteorite impacts, major large-scale earthquakes. Use of natural resources from the public lands is not comparable with any of these categories of events. The legal mandate for public lands is to manage and use natural resources from the public lands for the public benefit. Mineral development is unquestionably one of these uses. The primary variable that directly affects the environment is the number of wells to be drilled (more wells or less wells). This is the primary factor on which the alternatives are based. A variety of mitigation measures and BMPs in the RMP FEIS are in place to minimize the effects of mineral exploration and development activities.

Comment: Green completions, which eliminate the need for flaring of natural gas during completion operations (see DEIS at A20-6) should be required as a standard operating procedure for each APD approval.

Response: Current federal regulations allow for a certain amount of gas venting at each well; when companies exceed this amount they are required to meter the gas and pay royalties on it. The State of Wyoming is currently considering regulations that would require, or at least greatly increase, the use of “green completions.” The BLM would incorporate any State of Wyoming regulation into use authorizations, as appropriate.

Comment: We request that all citizens' proposed wilderness areas be withdrawn from future leasing, surface mining, and coal leasing, and that activities on existing mineral leases be managed under special stipulations to minimize the impacts of projects that are implemented pursuant to current valid existing leases.

Response: Those lands in the RMPPA that have been found to possess wilderness qualities are preserved in existing WSAs. WSAs would not be subject to future leasing, unless released from wilderness consideration by Congress.

Comment: We ask the BLM to withdraw lands within 3 miles of a sage grouse lek from lands suitable for surface mining under the Surface Mining Control and Reclamation Act (SMCRA).

Response: RFO is currently using the BLM National Sage-Grouse Strategy, the Wyoming Greater Sage-Grouse Conservation Plan, and when the local sage-grouse working group's plan becomes available, the strategies in this document will be implemented for grouse protection as well. Around known lek sites, the National Sage-Grouse strategy uses ¼-mile NSO as the best available scientific information available to protect nesting grouse; currently the RFO follows these guidelines. RFO is currently proposing changing this from ¼-mile protection from the lek center, to within ¼ mile around the lek perimeter, which will extend the protective NSO. In addition, once nesting and brood-rearing habitat has been identified, RFO will use the nesting and brood-rearing habitat boundaries, even if they are outside of the 2-mile lek timing buffer. Until such time as the strategies change, BLM will use these requirements as the best available scientific evidence to protect grouse. Through the use of BMPs—such as centralizing facilities, directional drilling, and no operations between the hours of 6 p.m. to 9 a.m.—RFO seeks to minimize impacts to grouse during the critical strutting and nesting season. As noted, BLM and WGFD are in the process of identifying nesting habitat. In the future, these areas (even if outside the 2-mile lek buffer) will have seasonal timing stipulations placed on them. The impact analysis in Chapter 4 supports that these management actions would adequately protect the greater sage-grouse.

Comment: BLM outlines a series of Best Management Practices to avoid or minimize the impact of non-point-source water pollution. See DEIS at A13-1. We agree that many of these BMPs should be implemented, but as a mandatory standard, not a discretionary suggestion. BMPs that should be implemented throughout the RMPPA include (see DEIS at A15-2 to A15-3): • Directional drilling • Drilling of multiple wells from a single wellpad • Transportation planning to minimize the road network • Remote well monitoring • Piping of produced fluids to centralized tank batteries to reduce traffic • Submersible pumps • Belowground wellheads • Bussing of workers • Flareless completions • Burying of powerlines and pipelines beside existing roads • Using two-track routes for access in lieu of constructed roads in every possible instance • Reuse of old roads or well pads • Interim reclamation of well locations and access roads as soon as the well is put into production • Avoidance of facility placement on steep slopes, ridge tops, or hill tops • Storage of fluids with secondary containment to limit the impacts of spills • On-site bioremediation of oil field wastes and spills • Removal of trash, waste, or junk and other materials not currently in use • Re-contouring and revegetation of disturbed areas to blend with the surrounding landscape • Reclamation of unneeded roads to the original contour • Blending facilities into background scenery by repeating natural forms, lines, and colors. In addition, the following Best Management Practices, but not listed in the Rawlins RMP DEIS, should also be applied to all oil and gas projects throughout the planning area (see BLM IM 2004-194): • Installation of raptor perch avoidance • Noise reduction techniques and designs • Screening facilities from view • Seasonal restriction on vehicle traffic

Response: Directional drilling and drilling multiple wells from a single well pad are not feasible in all cases and would continue to be used when necessary. Using two-track routes for access, in lieu of engineered roads, has also been discussed previously; it is not appropriate for most situations. Use of

flare-less completions is not possible under current federal regulations; changes in state requirements could modify this at some time in the future, as discussed earlier. Onsite bioremediation covers a broad range of possibilities. In some cases it would be necessary to haul materials to legally mandated disposal sites, and one would probably not want such materials to remain on the well sites. Bioremediation of some materials can be accomplished by spreading material out on the ground and mixing it with certain types of bacteria, which are added to the material to break it down biologically. Different situations would demand the use of different methods for disposal. The rest of the items on the list are used throughout the RMPPA, when deemed necessary or beneficial to reducing or mitigating environmental impacts. Blanket application of the various mitigation techniques would not always result in a favorable outcome and may at times actually create environmental problems. BMPs are included in Appendices 1, 13, 14, 15, and 24, among others, in the RMP FEIS.

Comment: By comparison, conventional gas drilling produces an average of 210-420 gallons of water per well per day, which is typically stored in lined reserve pits and never enters the local watershed.¹ Thus, coalbed methane development wastewater production is not in the same realm of magnitude as conventional gas production, and specific analysis must therefore be undertaken to determine the environmental impacts of reasonably foreseeable coalbed methane development on the environment in the various alternatives in the DEIS.

Response: Decisions about managing oil and gas resources on public lands are made at two general levels. Plan-level decisions include leasing decisions that result in issuance of oil and gas leases with the expectation that some exploration or development activity may be proposed some time in the future. Project-level decisions encompass exploration and development decisions that result in ground disturbance with wells, roads, and associated infrastructure. Hydrologic investigations would be conducted before CBNG development. The various types of studies and analyses that would be conducted are discussed in Section 4.17 of the Rawlins RMP FEIS. Fairly large differences in various hydrologic parameters can be present from one area to the next. More specific analysis is not warranted until one has a specific project to look at, so more specific analysis is not useful at the leasing stage.

Comment: BLM should require use of pitless drilling to reduce wellpad size and contamination of wildlife at reserve pits. This method entails 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 Rawlins RMP.

Response: Use of tanker trailers on the well sites instead of the use of reserve pits to contain drilling fluids may not result in smaller well pads. Drilling fluids would need to be hauled in using tankers, which require a fair amount of space to maneuver on the well pad. Drilling fluids generally consist of water and bentonite associated with well cuttings and generally do not contain “toxic” constituents. “Frac” fluids used to increase fluid flow from the producing formations do contain a wide variety of chemicals. These fluids are contained on the well site in tanks and generally number from about 16 to 20 and require a fair amount of space on the well pad.

Comment: Seismic exploration projects can also have impacts on big game, particularly in sensitive habitats. Both shot-hole and vibroseis methods have been shown to disturb and displace elk on winter ranges (Ward 1986). Seismic exploration can also cause elk to abandon preferred calving habitats (Gillin 1989). Shot-hole seismic projects, while less damaging to the land, may also have negative impacts on wildlife. Explosions from shot-hole seismic testing may injure or kill fish when the shots are placed too

close to aquatic habitats (Yukon Fish and Wildlife Management Board 2002). When performed in the winter, seismic shots can disturb and cause stress to hibernating bears (Reynolds et al. 1983). For these reasons, seismic exploration projects also deserve special planning to minimize their impacts on lands and wildlife.

Response: Each seismic project is specifically assessed and planned out so as to reduce negative effects to lands and wildlife. Seismic exploration techniques are discussed in Appendix 20, Oil and Gas Operations in the RMP FEIS.

Comment: We would like to put forward at this stage that passive seismic transmission tomography methods, which rely on existing sources of vibrations (e.g., earthquake tremors, drill bit vibration) in the Earth's crust to provide the source vibrations, be the preferred method for geophysical operations under the Rawlins RMP. See Attachments 20-27. These methods are currently in use in the Jonah Field of western Wyoming. Attachment 3 at 9. Because the Rawlins Field Office sits directly astraddle the Continental Divide, an area of high and frequent geologic activity as measured by NPS seismographs in Jackson, this area would appear to be ideal for this low-impact alternative to the heavy-impact geophysical exploration currently being permitted by the BLM.

Response: On the basis of the information you submitted, there are two basic uses for the subject technology. One use involves using small shock waves created by minor shifts along fault planes, shear zones, or other areas of natural seismic activity as a source for vibrations, which are recorded by a set of portable geophones. Computers are used to interpret subsurface structures from the reflection patterns created as the waves pass through rocks of varying composition and density. The second use involves using minor shock waves, created by slippage along fractures as a result of fluids being injected under pressure into "tight" (low permeability and porosity) rock formations, to monitor the passage of the fluids as they make their way through the formation and allow assessment for the potential to produce hydrocarbons. The second application is currently the most common for this technology. Using the technology to interpret geologic structure, based on the information submitted, has only been attempted in South America in foothills of the Andes Mountain Range. A 4-month period was required to determine if enough data could be collected for an adequate interpretation, followed by a 6-month period during which the project was actually attempted. Several thousand "earthquakes" were recorded, but only about 980 events were actually used in the interpretative phase of the project. Conclusions from the project were: (1) Earthquake energy can be used to generate velocity volumes and structural images; however, the technology used to do this is new and expensive, and costs must come down to make it an economic alternative to conventional reflection seismic data. (2) The northern part of the Ucayali Basin is very seismically active, which raises concerns about the ability of faults to trap hydrocarbons; it is postulated that the largest hydrocarbon volumes will be found in anticlines that are not cut by seismically active faults. (3) An interpretation of the earthquake location distribution and the two-dimensional reflection seismic data is that several shear zones exist in the crust as a result of the Andean Orogeny; the most seismically active zones can be found at depths of 20–40 km and 130–140 km. The second application type has seen some limited use in western Wyoming to assess the physical characteristics of some tight hydrocarbon-producing formations. The information submitted also indicated that a structural type of assessment project is being initiated in the Los Angeles area; details concerning this project are not provided. The central part of the North American continental plate is generally not known to be seismically active, producing large numbers of earthquakes on a regular basis, as at the edges of the continental plates (the Andes, Los Angeles area). Seismic activity in Wyoming was researched using information made available from the U.S. Geological Survey. Since 1973 there have been 99 earthquakes recorded in an area within 200 kilometers of Wamsutter, where the bulk of oil and gas exploration and development is occurring. The intensity of these earthquakes tends to be low, and there is not nearly enough of them to provide the database required, as in the example you provided discussed above, to use this method for conducting seismic exploration. As one proceeds eastward through the RMPPA, the

ground tends to be more stable and fewer earthquakes have occurred. Using the methods you propose is not feasible within the RMPPA.

Comment: Passive seismic is not mentioned in BLM's discussion of geophysical methods available under the Rawlins RMP. See DEIS at A20-1. The Rawlins RMP should require passive seismic as first option for geophysical exploration throughout the planning area, allowing other methods only when passive seismic is proven infeasible through documentation and data. In areas of roadless and/or wilderness qualities (including all citizens' proposed wilderness and WSAs), passive seismic and helicopter-based shot-hole seismic with hand-laid geophone lines should be the only options allowed under the Rawlins RMP.

Response: Current methods used on the public lands can be mitigated, such that they produce minor impacts to existing resources. Passive seismic methods, as discussed earlier, are not currently feasible for use in the Rawlins RMPPA.

Comment: We are concerned that nothing in the revised plan actually limits the number of new wells. [Footnote 16] In its previous RMP for the Great Divide, completed in 1990, BLM maintained that 1440 new wells would be drilled over the life of the plan. Yet, BLM's own records indicate the actual number of wells drilled since 1990 may be three times 1440. This is because BLM lets the industry determine the pace and place of oil and gas development on our public lands. Once lands are made available for such development, BLM places no restraints on how many wells are drilled or how quickly wildlife habitat is consumed by the man-made infrastructure of oil and gas extraction. [Footnote 17]

Response: The fact that the total number of wells in an area may exceed the total number of wells projected in the selected alternative does not automatically mean that a supplement to the NEPA document or a revision or amendment to the RMP is necessary. It is possible that exceeding the number of wells projected in the selected alternative may not result in exceeding the predicted level of environmental effects. Mitigation of environmental effects through successful reclamation, clustering wells on shared well locations, and minimizing pad and road construction can prevent the level of impacts from substantially exceeding the impacts as analyzed in the original RMP/EIS or other NEPA documentation. Decisions about managing oil and gas resources on public lands are made at two general levels. Plan-level decisions include leasing decisions that result in issuance of oil and gas leases with the expectation that some exploration or development activity may be proposed some time in the future. Project-level decisions encompass exploration and development decisions that result in ground disturbance with wells, roads, and associated infrastructure. More specific analysis cannot be accomplished until one has a specific project to look at, so more specific analysis is not necessary at the leasing stage.

Comment: The BLM should adopt a maximum density of 5,760-acre surface spacing of wells and facilities as a standard stipulation throughout the planning area; in areas where surface spacing is already denser than 5,760 acres, additional wells should be permitted only at existing wellpads.

Response: The proposal to adopt a 5,760-acre spacing (one well pad every 9 square miles) does not seem to be supported by any rational analysis of the technical aspects associated with the proposal. The required horizontal "reach" of directional wells does not appear to be attainable with current onshore drilling technology. Also, public oil and gas reserves would be lost.

Comment: The current alternatives presented in the Rawlins RMP DEIS ignore the need to minimize environmental impacts of oil and gas drilling. BLM should take advantage of advanced technologies by mandating the use of directional drilling to both cluster impacts in full-field development scenarios and displace the surface impacts of drilling away from sensitive landscapes and wildlife habitats.

Response: The following information was referenced by the Bilateral Compliance Agreement (BCA) as supporting documentation (quoted from the Desolation Flats DEIS, pages 2-43-2-44): “Union Pacific Resources Company (UPRC) drilled 17 diagonal wells from central well pads sites in the Wamsutter Field from 1994 to 1999... The vertical displacement or directional reach of these wells ranged from 250 to 2450 feet with deviations ranging from 15 degrees to 32 degrees.... Significant completion problems were experienced with this configuration (20 to 30-degree angles) so the well plans were changed to ... S-shaped configuration with the wellbore being vertical as it penetrated the reservoir. 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. The application of directional drilling is geologically and mechanically limited. In most cases of multiple gas zones, the hole must be vertical when it penetrates the zones.... The purpose of directional drilling wells in the Wamsutter Field was to evaluate the potential cost savings between drilling 4 wells from one location versus drilling 4 separate locations. This objective was not met as the total cost to drill, complete, and equip a 4-well-pad location was typically 15-20 percent higher than 4 separate locations.... Reserve estimates in the Wamsutter Field are relatively minute in comparison to the world class reservoirs of the Gulf Coast or North Sea where directional drilling is routine; however, such increases in the costs to recover these reserves results in unfavorable economics. The additional cost to directionally drill a well is a function of the vertical distance between the surface location and the proposed bottom hole location. The longer the vertical distance, the greater the need for directional steering equipment. This inherently slows down the penetration rate. The wells directionally drilled by UPRC typically took 30 to 40 percent longer to drill than vertical wells of similar depths. Additional costs associated with these services include directional steering equipment and personnel, higher quality mud systems, more drill bits, and more rig days... Current technologies, along with large reserves, make it possible in some parts of the world to drill to a bottom hole location several miles from the surface location. With the right drilling rig, drill pipe, casing programs, mud systems, and directional steering equipment this can be achieved in other areas. However, in the Wamsutter Field, and natural gas producing areas near Wamsutter Field ..., there are mechanical limits associated with the standard drilling equipment available. The average vertical displacement of the UPRC’s 17 directionally-drilled wells in the Wamsutter Field is 1,425 feet. Torque and drag calculations, based on the same rig equipment capabilities and the same casing program, indicate that the maximum attainable vertical displacement before reaching the mechanical limits of the drill pipe is 6,200 feet. The maximum deviation in this case would be 50 degrees. Even if the well could be drilled it would be highly uneconomical at current reserve estimates and gas prices because the additional drilling costs would be higher than normal.” The following information concerning actual experience in drilling 54 directional wells in the Jonah Field is summarized from Attachment 3 submitted by BCA and dated July 16, 2004: “The Lance Formation sandstones are lenticular and discontinuous having been stream- deposited (fluvial), with interbedded siltstones and mudstones deposited outside the stream channels. The 3-dimensional geometry of the sandstones deposited in this fluvial setting and the overprint of the faults results in extreme reservoir complexity (Attachment 3, p. 8). ‘Directional drilling has been proposed as a universally applicable technology for use in reducing surface disturbance that can be easily applied to Jonah Field. This is a misconception resulting from superficial analysis of directional drilling technology applications in development of oil and gas fields.... The evaluation of well architecture options for thick, low permeability gas reservoirs is not a simple matter of stating that drilling multiple wells from a single pad will reduce surface disturbance. Many factors must be considered in order to select the appropriate well type and to evaluate the tradeoffs between vertical and deviated wells. The tradeoffs involve increased cost and potential lost reserves associated with increased risks in the deviated well drilling, completion and production processes. In addition, increased drilling times and higher engine load requirements for deviated wells increase cumulative surface activity, emissions, and environmental impact. Directional drilling is a well-established technology in the oil and gas industry. However, the technology is not applicable to all situations (Attachment 3, p. 10).’ ‘Although horizontal wells may drain reserves from a single zone more efficiently than a vertical well completed and hydraulically fractured in the same zone, single zone completions are generally not economic in the Lance. In multizone reservoirs,

multilaterals or hydraulic fracturing has been used in some instances to access multiple zones. At Jonah these approaches are not feasible because of the large number of zones distributed over 3000 ft to 4000 ft of gross interval. Horizontal wells are clearly not applicable for development of the Lance at Jonah' (Attachment 3, p. 12). The s-shaped well is the most common deviated well drilled for field development. A well of this type at Jonah would be kicked off a about 2600 ft and straightened to vertical before entering the first pay zone at about 7150 to 8700 ft from the surface. From a completion standpoint, this well looks like the vertical well with possible problems working inside a deviated well with two doglegs (bends) in the well path. The main subsurface problem with this well type at Jonah is increased cost associated with directional drilling and mechanical risk due to differential sticking of drill pipe and casing through the normally pressured Fort Union above the Lance (Attachment 3, p. 13). 'Experience to date indicates that there is no correlation between reach and additional well cost. In fact, some of the low reach wells have experienced more problems than longer reach wells. This suggests that other factors are more important in determining the incremental cost... The expected learning curve has been observed at Jonah with technology advancements to the end of 2003 when the additional cost reached a low of about \$50,000. However, in 2004 problems and additional costs have increased and demonstrate that directional drilling continues to experience a significant risk. Recently, additional drilling costs are very high ranging from \$200,000 to \$400,000 per well. This experience indicates that many factors are influencing the directional drilling results' (Attachment 3, p. 16-17). Some of the subject company's conclusions include: It is generally not feasible to extend out more than about 1300 feet laterally from the initial entry point to the bottom hole location based on depth of, and thickness of, target production zones. The additional costs associated with drilling a directional well [they also preferred using the S-type] varied from \$270,000 to \$470,000. (they did not indicate the cost of drilling a vertical well but it is in the neighborhood of \$1.0 million) Directional wells take about 25% longer to drill than conventional wells, if problems occur they may take 200-300% more time to drill. The cost of drilling directional wells did not decrease as experience increased. There is a higher potential for lost reserves" (Attachment 3, p. 23). Directional drilling is one of the BMPs listed in Appendix 15 of the Rawlins RMP FEIS. Directional drilling technology cannot be used in all situations, but it has been used in the Wamsutter area, and application of this technology is expected to continue into the future.

Comment: Throughout the DEIS, the BLM treats coalbed methane development as just another form of natural gas production, undifferentiated from conventional gas development. The Great Divide EIS treats conventional natural gas and coalbed methane as the same, differing only in the reservoir rock (limestone and sandstone for natural gas, coal for "coalbed natural gas" — more commonly and properly known as coalbed methane). DEIS at 3-35. Coalbed methane does share some of the same impacts in common with conventional oil and gas development: habitat fragmentation and degradation from intensive industrialization of the landscape, impacts to visual resources and recreational opportunities, impacts to air quality (both dust and chemical pollutants), and the potential for spills of toxic chemicals. Overall, however, coalbed methane development is radically different from conventional gas development in terms of its environmental impacts, having a significantly greater impact in many respects. Therefore the impacts of coalbed methane exploration and development should be analyzed explicitly and separately from the impacts conventional oil and gas development

Response: The basic difference between conventional gas development and coalbed natural gas (CBNG) development can be summarized by indicating that conventional gas development generally involves a wider-spaced, smaller number of deeper wells and CBNG involves closer-spaced, larger number of shallow wells. CBNG is discussed in Appendix 20 - Oil and Gas Operations in the RMP/FEIS.

Comment: Your agency states that the Wyoming Game and Fish Department has authority to set standards for giving exceptions and waivers to lease stipulations and conditions of approval despite the fact that these are federal and not state lands. BLM is approving federal actions as a result of the management of federal resources. BLM has no right to abrogate the responsibility to determine when

exceptions or waivers will be granted to a state agency. Please remedy this problem and please do not allow a state agency to make decision that should be made by the BLM.

Response: BLM coordinates with the WGFD during review of exception requests received from industry but retains authority to decide whether or not an exception would be granted. This text has been updated in the Rawlins RMP/FEIS.

Comment: We are disappointed in the lack of documentation, and the omission of the timing limitations and other mitigation practices in this appendix. It should be thorough and contain all the appropriate stipulations. [Page A15-1-A15-3, Section Fluid Minerals BMP]

Response: Mitigation measures and BMPs for various resources are found in the appendices in the RMP/FEIS. BMPs are applied separately from standard mitigation measures and lease stipulations. Timing limitations for sensitive wildlife habitat are addressed in the Wildlife and Fisheries Section of Table 2-1, Detailed Comparison of Alternatives, and the BMPs are included in the various appendices.

Comment: In the section Reducing Impacts from Fluid Mineral Construction, Operation, and Reclamation, we recommend adding the following Standard Management practices as listed on page 75 under the “Stream habitats and Riparian Corridors” section of the following document written by the WGFD “Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats”. – No drilling activity or disturbance should be permitted within 500 feet of a riparian area, wetland or stream channel. Apply a standard NSO stipulation to all riparian zones and a 500-ft corridor extending from the outermost limit of the riparian habitat. – Drilling should not be permitted on slopes exceeding 25%. – Line reserve pits with a suitable, impermeable barrier to eliminate possible contamination of soil and groundwater. – Design drill pad sites to drain excess storm water and other fluids into a properly sized reserve pit. The pit should have adequate capacity to intercept and hold excess precipitation. – Discharges from other than reserve pits should meet NPDES standards or otherwise assure the discharged water is of suitable quality. – All pipeline crossings of a watercourse should be protected against surface disturbances and damage to the pipeline, which could result in a spill event. – Any stream crossing of a pipeline should be protected by installation of automatic shutoff valves. – Any pipeline crossing of a perennial stream should be done by boring underneath the stream rather than trenching – Pipeline crossings can be installed through ephemeral streams by trenching. Use appropriate size riprap to stabilize stream banks. Place riprap from the channel bottom to the top of the normal high water line on the bank at all stream crossings. We recommend double-ditching techniques to separate the top one foot of stream bottom substrate from deeper soil layers. Reconstruct the original layers by replacing deeper substrate first. – Design road crossings of streams to allow fish passage at all flows. Types of crossing structures that minimize aquatic impacts, in descending order of effectiveness, are: a) bridge spans with abutments on banks; b) bridge spans with center support; c) open bottomed box culverts; and d) round culverts with the bottom placed no less than one foot below the existing stream grade. Perched culverts block fish passage and are unacceptable in any stream that supports a fishery. – Locate and construct all structures crossing intermittent and perennial streams such that they do not decrease channel stability or increase water velocity. – Avoid stripping riparian canopy or stream bank vegetation if possible. It is preferable to crush or shear streamside woody vegetation rather than completely remove it. Any locations from which vegetation is stripped during installation of stream crossings should be revegetated immediately after the crossing is completed. – Staging, refueling, and storage areas should not be located in riparian zones or on flood plains. Keep all chemicals, solvents and fuels at least 500 feet away from streams and riparian areas. – Hydrostatic test waters released during pipeline construction could cause alterations of stream channels, increased sediment loads and introduction of potentially toxic chemicals or invasive species into drainages. Avoid discharging hydrostatic test waters directly to streams. Release these waters first into a temporary, sediment retention basin if the concentration of total suspended solids is significantly higher than in the receiving water.

Dewater temporary sedimentation basins in a manner that prevents erosion. – Locate pipelines that parallel drainages, outside the 100-year floodplain. Construct pipeline crossings at right angles to all riparian corridors and streams to minimize the area of disturbance. – Use the minimum practical width for rights-of-way where pipelines cross riparian areas and streams. – Instream activity restrictions may be necessary to protect fish spawning habitat in certain streams. These restrictions will be identified in Section 404 permits issued by the U.S. Army Corps of Engineers (COE). In such cases, the COE will consult regional fisheries or statewide fisheries personnel at the Department’s local or Cheyenne offices, respectively. We encourage companies to consult the Department’s fisheries personnel for advice regarding appropriate practices and design considerations when planning instream activities. [Page A15-2]

Response: Mitigation for different resources is found in various appendices at the end of the document. BMPs are applied separately from standard mitigation measures and lease stipulations. Most of the requested mitigation measures you propose are already presented in the RMP/FEIS. Please review the Appendices in the RMP/FEIS, specifically Appendices 1, 15, 16, 17, 18, and 26. Measures you propose, which are not already in use, will be assessed with respect to their possible future utility and added to the RMP/FEIS, as appropriate.

Comment: pp. 2-8; 2.3.7; Minerals. BLM indicates it is “integrating the results of the Energy Policy and Conservation Act Amendments (EPCA) Inventory into its RMPs. The oil and gas resource inventory data is integrated into the RFD scenario that predicts future mineral development within the RMPPA.” The EPCA findings were inadequate in determining the effects of BLM restrictions on oil and gas activities because they were limited to the impacts of stipulations on access to oil and gas resources. The findings of the National Petroleum Council Study, Balancing Natural Gas Policy - Fueling the Demands of a Growing Economy provides much more detailed information regarding the effects of stipulations as well as conditions of approval (COA) that must be met when a project is undertaken. We recommend this information also be taken into account in the DEIS analysis.

Response: BLM will take into account the findings of the EPCA study and the National Petroleum Council report concerning the effects of resource mitigation on access to the public lands for the purpose of conducting oil and gas exploration and development activities. Refer to the impact analysis in Chapter 4 of the Rawlins RMP FEIS.

Comment: If you must drill, unfortunately, please use less environmentally damaging types of drilling. Why not just support new methods of research in hydrogen and solar power to use on cars and consumer products? We don't need to reinvent the wheel, just roll along with the wheel as it spins.

Response: Directional drilling is considered where possible and is one of many mitigation measures used in the RMPPA. However, directional drilling is not always possible, given geology and certain technical issues. The drilling company in consultation with BLM ultimately decides the method of drilling. Alternative sources of energy are still in the developmental stages. Each type poses limits on where and how efficiently it can be used. Research and development continue concerning the effective use of these energy sources. Predictably their use will continue to increase in the future.

Comment: I think the BLM and others should be looking ahead 50 to 100 years or more when it comes to using any of the resources which are in this area or the rest of the State of Wyoming. Some time it will be necessary to utilize them. This should include all new exploration for any of the above to include the installation of new pipe lines, if necessary, or any other means of transportation of any of these resources from the point of origin to the point of consumption or distribution.

Response: The time frames analyzed in the RMP cover a period of about 20 years. Trying to determine reasonably foreseeable development and actions 50 to 100 years in the future becomes extremely speculative, considering the rapid nature of technological change experienced over the last 50 to 100 years.

Comment: I would ask you to better define intensive management and in which areas which components of intensive management will be applied. If you believe intensive management is absolutely necessary to protect the environment within the planning area, then I would ask you to at least give oil and gas developers a heads up to the mitigation procedures they may be required to comply with.

Response: The definition of “intensive management” has been expanded in the Glossary in the Rawlins RMP/FEIS to include additional reference to the various appendices that contain mitigation important to support the management actions in Chapter 2 that refer to intensive management. The definition has also been expanded to clarify how the application of intensive management would influence on-the-ground management actions.

Comment: DEIS: “Surface-disturbing and other activities potentially disruptive to nesting raptors would be prohibited within distances and time periods necessary to allow raptors to complete breeding and nesting activities. Distances and time period vary between $\frac{3}{4}$ and 1 mile and between February 1 and August 31, respectively, for different raptor species. Facilities requiring a repeated human presence would not be allowed within 825 feet (ferruginous hawks, 1200 feet) of active raptor nests.” Response: Once again, this proposed stipulation is a dramatic change from past practice. BLM should allow for some flexibility, particularly as it relates to coal mining operations in the area. The coal industry, in conjunction with the Wyoming Department of Environmental Quality and the U.S. Fish and Wildlife Service has successfully relocated nesting raptors at various locations in the western United States. This type of operation has resulted in the protection of raptors, while allowing for the mining process to proceed.

Response: If a proposal for a new coal lease is received, the Coal Unsuitability Criteria would be applied and a plan amendment prepared. The stipulation could be modified at this time.

Comment: The BLM needs to complete an environmental analysis now in the RMPPA rather than later, so oil and gas developers will be able to know what seasonal restrictions will be in place.

Response: Oil and gas exploration and development activities are described in Appendix 20 of Rawlins RMP FEIS. Other appendices describe and explain how mitigating measures are developed and applied to these activities. In general, oil and gas lease stipulations are added to potential lease parcels based on the location of the lease parcel and the location of sensitive resources for which stipulations, mitigation measures, and BMPs have been developed. Please refer to Maps 2-1 to 2-57 in the RMP FEIS to get an idea of what mitigating measures may be applicable in a given area.

Comment: Limit gas and oil development on private lands that people try to preserve in its natural state to aid wildlife and conservation efforts.

Response: BLM has no authority to encourage or hinder oil and gas development on private fee lands, where mineral rights and surface rights are controlled by the land owner. In the case of split estate lands where the mineral rights were reserved to the Federal Government, BLM establishes reclamation requirements in consultation with the private landowner.

Comment: Please do not permit more drilling than the BLM can inspect (for environmental compliance) every 3 years or as required by Federal Law.

Response: All oil and gas wells and associated facilities are inspected on a regular basis. BLM's monitoring plan is outlined in Appendix 17, Monitoring and Evaluation, in the RMP/FEIS.

Comment: I also support more environmentally friendly ways of cleaning water from the wells. F.T.E. is much better than reinjection wells. You don't address this issue enough.

Response: The freeze-thaw evaporation (FTE) process is used to separate out dissolved solids, metals, and chemicals from produced water. Its utility is that produced water treated using the FTE process can be reused in subsequent drilling operations at other locations. This process is currently in use in the Great Divide Basin, and its use is expected to spread to other parts of the Rawlins Field Office area.

Comment: Mineral development is another one of the most valuable uses of the land and should be allowed with emphasis on reclamation. The percentage of the land that is permanently disturbed by mineral extraction is so small that mineral development doesn't do any harm to the other uses of the land if the land that is temporarily disturbed is reclaimed and reseeded until it grows. Halogeton and other noxious weeds must be controlled aggressively.

Response: The Rawlins RMP FEIS evaluated a range of alternatives, recommending a balanced approach that ensured protection of resource values while allowing opportunities for mineral and energy exploration and production. The management actions contained in the FEIS allow minerals and energy exploration and production while protecting other resource values. Control of noxious and invasive weeds in the RMPPA is discussed in the RMP FEIS in Appendix 19, Vegetation Treatments, Forest Practices, and Range Improvement, Chemical and Biological Treatment Guidelines.

Comment: [Page 2-27] EIS areas would be managed less restrictively than outside due to their importance to the National energy Policy. New EIS outside the old ones would be more scrutinized and under a larger burden of proving their worth under this new plan.

Response: The Rawlins RMP FEIS describes how the entire RMPPA would be managed with respect to oil and gas. Some areas, primarily on the west side of the RMPPA, contain more potential resource conflicts than other areas of the RMPPA and would be subject to the application of additional mitigation measures to development activities.

Comment: [Please consider prior to publication of the FEIS that]...the Rawlins RMP Area future production will most likely come from unconventional gas production or coal bed methane development. Although the DEIS generally addressed coal bed methane production, it should be noted that the resources for this region have significant potential.

Response: BLM is aware of the potential for CBNG resources within the RMPPA. This subject is discussed in Section 3.8.4, Mineral Resources, in the RMP/FEIS.

Comment: Restriction of mineral development in the entire Adobe Town area [should occur].

Response: Existing WSAs are discussed in Chapter 3 of the Rawlins RMP FEIS. Those lands in the RMPPA that have been found to possess wilderness qualities are preserved in the existing WSAs under the IMP. WSAs will not be subject to future leasing unless released from wilderness consideration by Congress. Recognizing the recreational settings surrounding the Adobe Town WSA, management actions address this area (Adobe Town Dispersed Recreation Use Area) as a priority reclamation area for the proposed alternative. Almost all of the surrounding lands around the Adobe Town WSA are leased for development. The BLM is required to adhere to management for multiple use.

Comment: Plans of action should be required for all locatable minerals within all ACECs.

Response: A Plan of Operations is required by regulation (43 CFR 3809.11) for any locatable mineral activity greater than casual use in an ACEC.

Comment: The development of mineral interests owned by private individuals should be allowed. However, this activity should minimize surface damage, while allowing mineral extraction.

Response: The BLM has no control over development of mineral interests on private mineral lands. In the rare instance where lands may be federal surface or private mineral lands, the mineral interests may be developed; however, an environmental document would be prepared and reclamation and mitigation measures developed prior to allowing development.

Comment: Employ strict water and air quality monitoring for oil, gas and coalbed methane development. Specifically impacts from fracing require improved oversight to prevent air and groundwater pollution. Fracing should not be allowed until impacts are quantified and understood.

Response: Oil and gas and coalbed natural gas activities are monitored on a regular basis. Monitoring and evaluation are discussed in Appendix 17, Monitoring and Evaluation, of the RMP/FEIS. Air and water quality standards are set by the State of Wyoming. “Fracing” operations are subject to the legal mandates covering the use of hazardous materials.

Comment: Require a \$3 million deposit per well to restore the area to its preexisting condition. If the drilling company performs the task satisfactorily, they get their money back and the area gets the interest to use as the residents, who were forced to tolerate the drilling, see fit.

Response: Legal mandates establish the amount and purpose of the bonds that BLM can require with respect to oil and gas activities conducted on public lands.

Comment: With the proposed 9,000 wells going into this area we must require oil, gas, and CBM companies to use the best available technologies. I live in Sheridan County and have seen the impacts from CBM drilling. Smart ranchers require the companies to reinvest the water. I think as the BLM employees are the stewards of the public land, the BLM needs to also request that to be done. There should be sections where we should not drill at all. These areas would take into consideration Wilderness Study areas which include Adobe Town, Wild Cow Creek the Pedro Mountains and the Ferris Dunes.

Response: With respect to CBNG development, reinjection of produced water would be mandatory in situations where it is deemed to be the most favorable method of water disposal. Appendix 13, Best Management Practices for Reducing Non-Point Source Pollution, discusses measures used to protect watersheds, and the use of BMPs is covered in Appendix 15, Best Management Practices, of the Rawlins RMP/FEIS. Development would not occur in the Adobe Town WSA unless consistent with the Wilderness IMP. Wild Cow Creek, the Pedro Mountains, and the Ferris Dunes are not WSAs. See the Proposed Plan in the RMP/FEIS for oil and gas management actions specific to these areas.

Comment: Upon completion of the extraction process, the companies involved must complete a full restoration of ALL damage done,

Response: Upon completion of development activities, reclamation of all disturbed areas is mandatory and is required in all use authorizations. Appendix 17, Monitoring and Evaluation, in the Rawlins RMP/FEIS discusses BLM’s monitoring program, and Appendix 36, Reclamation Plan, describes the types of reclamation measures, BMPs, etc., that would be required for any authorized surface disturbance.

Comment: Wilderness areas, such as Adobe Town and Pedro Mountains, are important as recreational areas and as habitat for a variety of wildlife. Mineral extraction should be excluded from areas that are proposed as wilderness areas.

Response: Mineral extraction is precluded from WSAs. Those lands in the RMPPA that have been found to possess wilderness qualities are protected by existing WSA management designations. WSAs are excluded from future leasing, unless released from wilderness consideration by Congress. See Section 3.13.1 in the RMP FEIS for a discussion of WSAs. The Pedro Mountains are neither a WSA nor a designated wilderness and therefore, are not subject to the protections provided by a WSA designation.

Comment: In places where oil and gas development are allowed it should be done under strict oversight to prevent environmental damage. Best available technology, including reinjection of wastewater and directional drilling, should be used. Protection of ground water has been a problem at many areas where oil production has been allowed and whatever drilling is allowed needs to be monitored to ensure that the ground water is protected from polluting activities.

Response: Oil and gas exploration and development activities are subject to considerable mitigation and reclamation measures. See Appendix 17, Monitoring and Evaluation, in the RMP/FEIS for a discussion of BLM monitoring procedures. BMPs are not one-size-fits-all situations. BMPs need to be adapted to meet the site-specific requirements of a particular project as well as the local environment. BMPs are incorporated into site-specific project proposals and supported by site-specific environmental analysis. The Rawlins RMP/FEIS does not mandate BMPs for particular actions at the land use plan level but instead provides a range of BMPs that would be applied, where appropriate, at the activity plan or site-specific level of analysis. The Methods of Analysis sections under each resource heading in Chapter 4 of the RMP/FEIS contain assumptions that appropriate BMPs would be used to reduce the impacts of the various management actions under each alternative. BMPs would be applied as deemed to be necessary. BMPs and their applications are discussed in Appendix 15, Best Management Practices, in the Rawlins RMP/FEIS.

Comment: BLM, at a minimum should allow use of off-road travel to conduct necessary surveys such as wildlife and cultural.

Response: The term or concept of “disruptive activities” as part of the management actions and impact analysis considers the non-surface disturbing impacts of human activities conducted on public lands. The use of management actions, stipulations, and BMPs designed to reduce impacts is not intended to preclude authorized activities but influence how they are accomplished. Management actions to reduce these impacts caused by continued human presence in areas of sensitive habitat or resources are discussed in Appendix 15, Best Management Practices, in the RMP/FEIS. Also, see the updated definition of disruptive activities in the Glossary of the RMP/FEIS.

Comment: Appendices. The Pinedale Anticline EIS contains a much more comprehensive “Best Management Practices (BMPs) and Guidelines for Surface Disturbing Activities.” Why has this not been used? BMPs for energy development should be consistent and comprehensive across Field Office boundaries.

Response: The application of BMPs is generally consistent across field office boundaries; however, each field office contains a different mix of resources and associated impacts to these resources that must be addressed in mitigation measures applied to project- and site-specific authorizations on the public land. Also, each field office operates separately with respect to the various types of use authorizations granted on the public lands. The level of detail is also considerably different between a project-level EIS, such as

the Pinedale Anticline EIS developed for the Pinedale Field Office, and planning level analyses, such as the Rawlins RMP.

Comment: Arch of Wyoming is very concerned about: DEIS: “The RFO would implement recent BLM management direction regarding greater sage-grouse habitat and is consistent with the recent ‘Wyoming Greater Sage-Grouse Conservation Plan’ which was developed by the Wyoming Game and Fish Department with a broad range of stakeholders. The plan proposes to maintain and enhance sage-grouse habitat through an implementation, monitoring, and evaluation approach. Best management practices would be considered to reduce both the direct loss of habitat and disturbance to sage-grouse during the critical breeding and nesting period. Surface disturbing and disruptive activities would not be allowed within ¼ mile of delineated sage-grouse leks. Human activity within ¼ mile of delineated active sage-grouse leks would be avoided between the hours of 6 p.m. and 9 a.m. Surface-disturbing and other activities potentially disruptive to sage-grouse would be avoided in identified nesting and early brood-rearing habitat between March 15-July 15.” Response: This is a dramatic departure from past practice in the Hanna Basin. The Carbon Basin coal leases have stipulations that require mitigation for sage-grouse leks. This stipulation has been successful in the past, and can be effective in the future as well. Taken to its logical conclusion, the DEIS language represents a no-coal mining stipulation for surface mining activities. The DEIS recognizes the existence of the Carbon Basin leases for which these proposed stipulations would not apply. However, in the event that more coal reserves are needed, or a new mine is proposed in another part of the basin, this proposed stipulation could have a significant impact on deciding whether to proceed or not. The BLM should not limit themselves to an overly stringent stipulation when mitigation measures will work. The BLM should require the holder of a coal lease issued after the effective date of the updated Rawlins Management Plan to work closely with the Wyoming Department of Environmental Quality on mitigation and reclamation efforts that support mitigation and/or enhance habitat.

Response: If an application for a new coal lease is received, the BLM coal screening process described at 43 CFR 3420.1-4 would be reviewed or applied. This would include updates of the unsuitability criteria listed in 43 CFR 3461 (note: this is where the sage-grouse issue would come in, as sage-grouse would be under Criterion 15, habitat for state species of concern). Any changes to lands acceptable for further leasing consideration would be documented through the site-specific NEPA/land use plan analysis for the lease-by-application (LBA). Options include deleting the unsuitable area from leasing or applying an exception to the criterion, which would allow leasing but require mitigation of the conflict prior to mine permit approval and actual mining. Current leases would follow existing lease stipulations. For leases on federal surface, BLM would participate in the mining plan approval process as the surface management agency and concur with mitigation and reclamation requirements developed for the mine plan before the plan is approved by the WDEQ Land Quality Division and the U.S. Office of Surface Mining.

Comment: Arch of Wyoming is very concerned about: DEIS: “Surface-disturbing and other activities potentially disruptive to nesting raptors would be prohibited within distances and time periods necessary to allow raptors to complete breeding and nesting activities. Distances and time period vary between ¾ and 1 mile and between February 1 and August 31, respectively, for different raptor species. Facilities requiring a repeated human presence would not be allowed within 825 feet (ferruginous hawks, 1200 feet) of active raptor nests.” Response: Once again, this proposed stipulation is a dramatic change from past practice. BLM should allow for some flexibility, particularly as it relates to coal mining operations in the area. The coal industry, in conjunction with the Wyoming Department of Environmental Quality and the U.S. Fish and Wildlife Service has successfully relocated nesting raptors at various locations in the western United States. This type of operation has resulted in the protection of raptors, while allowing for the mining process to proceed.

Response: If an application for a new coal lease is received, the BLM coal screening process described at 43 CFR 3420.1-4 would be reviewed or applied. This would include updates of the unsuitability criteria listed in 43 CFR 3461. Any changes to lands acceptable for further leasing consideration would be documented through the site-specific NEPA/land use plan analysis for the LBA. Options include deleting the unsuitable area from leasing or applying an exception to the criterion, which would allow leasing but require mitigation of the conflict prior to mine permit approval and actual mining. Current leases would follow existing lease stipulations. For leases on federal surface, BLM would participate in the mining plan approval process as the surface management agency and concur with mitigation and reclamation requirements developed for the mine plan before the plan is approved by the WDEQ Land Quality Division and the U.S. Office of Surface Mining.

Comment: Map 3-5 is obviously modified directly from the Survey's oil and gas map, yet the Wyoming State Geological Survey is given no credit. A general comment is that many different vintages of price and production data for oil and gas are used in this document. There are some statements that refer to 2000 data, when 2003 and 2004 data are available.

Response: The oil and gas development scenario on which the alternatives are based was completed in January 2004. This assessment included a wide range of current data sources available at the time it was in preparation.

Comment: I would like to see the BLM take time to consider the progress we (the oil field) have made in the past 5 years concerning the environment. Pad wells, very expensive, no flare pits, enclosed mud systems, etc. I think it is time for the BLM to step back, consider where their jobs and salaries come from and work with us instead of against us.

Response: BLM is aware of improvements in technology and steps that the oil and gas industry has taken over the last few years to reduce the effects of its activities on other resources.

Comment: BLM has failed to identify the management restrictions that will be placed on oil and gas activities in certain areas. Rather BLM relies upon broad statements such that the "area will be intensively managed" in order to reduce or eliminate impacts. Given these conditions oil and gas operators have no way of knowing in advance whether development on a lease will be constrained with unforeseen resource conflicts and subsequent restrictions on permits that may affect the economic viability of the project. In all fairness, BLM must identify for oil and gas operators the specific restrictions it wants to impose and where it will impose them.

Response: Refer to Maps 2-1 to 2-57 and numerous appendices in the RMP/FEIS for information concerning the areas where BLM would impose mitigation measures to protect the various resource values found in the RMPPA. Appendix 20 discusses oil and gas exploration and development activities on the public lands. The sensitive resources referenced on the maps and in the appendices would be protected using oil and gas lease stipulations and conditions of approval (COA) attached to various use authorizations, including applications for permission to drill (APD) and road and pipeline rights-of-way.

Comment: And where is the data that says there is sufficient oil to justify the drilling?

Response: See Section 1.3.2, Planning Criteria, in the RMP/FEIS for a discussion of the Criteria for Hydrocarbon Potential. Also refer to the Rawlins Mineral Occurrence and Development Potential Report at www.blm.gov/rmp/wy/rawlins.

Comment: BLM should not place restrictive stipulations on APDs unless absolutely necessary to protect a known resource and be based upon scientific fact, not conjecture.

Response: Chapter 2 in the Rawlins RMP FEIS describes the basic premise concerning how mitigation is applied to oil and gas development activities on the public lands. These mitigation measures are applied based on the best information available when the APD is received. BLM does not apply unnecessary stipulations to use authorizations.

Comment: Responsible OHV use in geophysical operations and other activities should be permitted. Actually, geophysical surveys properly planned & executed should be completely under categorical exclusion and be permitted year round.

Response: Existing policy and regulation dictates where categorical exclusions can be used. Use of categorical exclusions is not applicable to geophysical operations under existing guidelines.

Comment: While evidence of past activities [oil and gas development] may remain today, current regulatory standards effectively eliminate long term impacts from oil and gas exploration and development. So even when there is a demonstrable negative impact, the impact is very temporary, not a “loss” of habitat or land. Any party that talks about the “loss” of land or habitat to oil and gas exploration and development is utilizing a propaganda technique rather than conducting a constructive dialogue.

Response: “Long-term” versus “short-term” impacts mean different things to different people. The Introduction to Chapter 4 in the RMP FEIS describes short-term impacts as those that remain less than 5 years and long-term impacts as those that remain longer than 5 years. An impact that remains for 5 years may be a long time to some people and a short time to others. A 5-year loss of land or habitat might be critical to the survival of some wildlife species struggling for survival and may in effect result in a “loss.” As you imply, after a sufficient period of time passes after final reclamation of a surface disturbance, a few decades or so depending on the specific area, the natural environmental processes present (precipitation, weathering, etc.) seem to erase the observable effects of most development activities.

Comment: Without a clear understanding of the new definition “Intensive Management” and its use, this consideration should be deleted from the Preferred Alternative and from the RMP revision because: the BLM has identified where it will impose “intensive management,” but it has failed to specifically identify what intensive management restrictions will be placed on oil and gas activities in those areas: and given these conditions, oil and gas operators have no way of knowing, in advance, whether development of a lease will be constrained by resource conflicts or subsequent restriction on permits that may affect the economic viability of the project.

Response: The definition of “intensive management” has been expanded in the Glossary in the Rawlins RMP FEIS to include additional reference to the various appendices that contain mitigation important to support the management actions in Chapter 2 that refer to intensive management. The definition has also been expanded to clarify how the application of intensive management would influence on-the-ground management actions.

Comment: The general geology, stratigraphy, structural geology, and paleontology are adequately addressed. This information could be better organized with the inclusion of a general geologic map covering the area included in the Rawlins District, an index map showing the structural elements and specifically the basins and uplifts, etc., and a nomenclature chart showing the stratigraphic nomenclature for the basins and uplifts in the Rawlins District--this could be done in table form with a brief description of the formation lithology and significant fossil resources. Using written discussions of all this type of information can get a bit tedious and hard to follow. The WSGS has geologic maps and a nomenclature chart which would help in constructing these types of illustrations and tables.

Response: Adequate information is presented in the RMP/FEIS. A stratigraphic chart has been added to Section 3.8.1, Geologic Units, in the RMP/FEIS.

Comment: pp: 4-245; Projects and Activities Considered, 3rd full paragraph, line 10 Comment: The discussion fails to recognize the reclamation of well sites, the partial reclamation of new disturbance and reclamation of pipelines as temporary disturbance not long term or permanent (irretrievable commitment of resources) disturbance. This should be presented in the FEIS.

Response: Vegetation Management in Chapter 4 of the Cumulative Impacts section discusses reclamation of disturbed areas, including areas not required for long-term operation as well as abandoned well sites and roads. Also, Table A33-5 in Appendix 33 includes the number of well sites expected to be abandoned and reclaimed for the various alternatives analyzed in the RMP/FEIS. Some impacts associated with drilling and pipeline development, etc., will occur regardless of whether reclamation is completed or not (i.e., habitat fragmentation and human presence). Also, for purposes of analysis, short-term impacts are described as those that remain for less than 5 years, and long-term impacts are described as remaining for more than 5 years (the introduction to Chapter 4 in the RMP/FEIS).

Comment: Flagstone rock extraction in the Powder rim area should be restricted. The nature of the landscape is being irreversibly changed with little or not oversight.

Response: The sale of mineral materials is discretionary. Thus, each request is evaluated individually with respect to whether a permit should be issued or not. The decision has been made to cease issuing moss rock permits in the Powder Wash area. There are no existing permits, and no new ones will be issued.

Comment: We recommend against surface discharge to ephemeral or perennial channels of the Little Snake Drainage, especially the Muddy Creek watershed irrespective of the water quality. As has been discussed we are concerned with altering the natural hydrology and the negative ramifications of doing so within the Little Snake drainage.

Response: The analysis of potential impacts from surface discharge during CBNG development was updated in the FEIS. The analysis looked at a range of alternatives, including allowing no surface discharge of produced water in the Colorado River Basin under Alternative 3. The Proposed Plan is, "Surface discharge of produced water that meets Wyoming surface water standards would be allowed in the Colorado River Basin. Individual projects would be considered on a site-specific basis." This will mean that as operators propose surface discharge in ephemeral drainages in the Little Snake River Basin and other areas within the RMPPA, the BLM will consider the impacts at the project level. When significant impacts are expected the EIS process will be used, including evaluating alternatives and mitigation as appropriate.

Comment: We assume the monitoring of mitigation measures described here would include a compilation of the number of requests for exceptions the BLM receives, the proportion of those exceptions that are granted, and any consequences. [Page 2-9, Section 2.3.7, Bullet 2]

Response: Monitoring identifies the effects of management actions that have been implemented to reduce and/or eliminate potential impacts to resources from implementing proposed projects. The BLM will monitor the effects of authorizing exception requests to determine both short-term and long-term impacts associated with these activities.

Comment: This section should document the amount and adequacy of reclaimed sites due to mineral development, and the likely trend/time frame for restoration of currently disturbed sites. [Page 3-29, Section: 3.8]

Response: All plugged and abandoned well sites are required to be adequately reclaimed before bond liability is released. Reclamation requirements are described in Appendix 36 (Reclamation Plan) in the RMP/FEIS. A33-5 lists the number of wells that are expected to be abandoned and the number of wells that are expected to be reclaimed under each alternative analyzed in the FEIS. The specific year in which any well or group of wells might cease production in the future is difficult to predict, since many factors affect this final outcome, including economics and gas field pressure decline rates. Also, see updated text in Section 3.8.4 in the RMP/FEIS that discusses general reclamation requirements as they relate to mineral development.

Comment: Oil and gas development probably spreads West Nile virus, which is killing sage grouse. This should be addressed in the RMP.

Response: The BLM will monitor the potential for impacts to occur to wildlife species, in coordination with other agencies, as a result of authorizing proposed projects. The BLM will assist the WGFD in the identification and/or monitoring of the existence of and possible impacts resulting from infectious diseases to wildlife populations.

Comment: Summary In the summary for the High Savery Dam, the potential impacts are not the same as in alternative 3, since the preferred alternative allows mineral leasing, and alternative #3 does not. CBM or deep gas could be important issues later on in the preferred alternative. It would be better to address oil/gas issues now, before the minerals are leased [Page 4-159, Section: 4.13.18.2]

Response: Based on information contained in the Rawlins RFD, there are currently no oil and gas leases and no potential for CBNG in the subject area. The potential for the presence of deep gas is considered to be low. The proposed management action for the area is that it be open to leasing with an NSO restriction; therefore, the impacts as discussed in Section 4.13.19.1 are the same in each alternative.

Comment: Why is the Stratton Sagebrush Steppe Research ACEC withdrawn for oil and gas leasing, but areas more significant to wildlife, such as the Sand Hills, Powder Rim, Red Rim and Atlantic Rim are not? Is this simply because there is low potential for oil and gas on the Stratton area? Are we to assume oil and gas withdrawals will only be pursued where there is little or no potential for oil and gas development? [Page 4-239, Section: SMAs]

Response: The Stratton Sagebrush Steppe Research area is closed to oil and gas leasing in the Proposed Plan in the RMP FEIS. Surface disturbing activities on existing leases would be intensively managed to meet the objectives for the research area. This SD/MA is managed to provide the opportunity to continue long-standing research projects that have occurred in the area and that are dependent on a stable environmental baseline. The SD/MA designation and management actions are required to protect the current research infrastructure. See Section 3.13.2, Areas of Critical Environmental Concern, in the RMP/FEIS for a description of the Stratton Sagebrush Steppe Research Area. The oil and gas potential, the acreage in existing oil and gas leases, and the management actions necessary to meet the goals and objectives for the SD/MAs were all considered in the decision to close any of the SD/MAs to oil and gas leasing.

Comment: Routing of the transportation network should plan to avoid sensitive habitats where possible such that timing limitations may be unnecessary. This should be the first option. [Page 4-166, Section: 4.14.1, 1st Para]

Response: In Section 4.14 of the Rawlins RMP FEIS, the discussion indicates that BLM imposes seasonal restrictions and restricts travel and seasonal access "...to protect wildlife habitat from disturbance during critical periods..." Sensitive habitat for wildlife tend to be fairly large in area extent, wildlife needs are taken into consideration. However, you need to remember that BLM is a multiple-use agency and there are other resource concerns that need to be taken into account, besides wildlife, in planning transportation routes.

Comment: BLM needs explain why oil and gas are allowed entry into areas where T&E species exist, but the mineral industry and others are excluded. [Page 2-63, Section: Mgmt.Actions, Para.2]

Response: As indicated in Section 1.4, Relevant Statutes, Limitations, and Guidelines, in the Rawlins RMP/FEIS, all mineral development activities are subject to the provisions of the ESA. Areas open to leasing within known T&E plant species habitat are subject to an NSO stipulation which precludes disturbance of the surface environment. Known habitat for threatened and endangered (T&E) plant species is open to mineral entry, unless a formal withdrawal has been pursued. All locatable mineral activity is subject to the provisions of the ESA.

Comment: We support the very guarded use of site specific wildlife restrictions, multiple restricted zones, and best management practices only when it is scientifically shown that they are absolutely necessary. This Resource Management Plan must give the mineral developers the maximum amount of regulatory predictability while reasonably controlling the environmental impacts.

Response: Site-specific restrictions are only applied when a need for them has been identified. Site-specific information also provides for exceptions, etc., to be granted, allowing operations to continue beyond normal imposed limitations. Mitigation measures imposed when leases are issued provide specific indications of the existence of conflicts with other resources on the leasehold; these are listed on the lease when it is first offered for sale.

Comment: pp. 4-263; Water Quality, Water Sheds and Soils, 4th full paragraph. Comment: The statement is made that: "even with proper oversight by-BLM and the WOGCC...oil and gas operations could introduce contaminants into the ground water. Existing development combined with the RFD would increase the potential for such impacts" We take strong exception to this statement. What is the basis for making this conclusion? Does BLM have any examples of recent cases where ground water has been contaminated? Even if there were isolated cases, those situations do not justify these general conclusions. These two sentences should be deleted from the FEIS.

Response: This statement was edited in the RMP FEIS to make the potential vehicle for groundwater contamination clear. Although standard drilling practices, along with WOGCC, WDEQ and BLM regulations, will reduce the likelihood of contaminating groundwater aquifers. However, drilling amendments, muds, and fluids from other aquifers would potentially contaminate aquifers during the planning period. Regulations and BMPs may reduce the likelihood of this type of contamination, but it does not remove the risk entirely. This analysis looks at potential impacts from BLM approved activities. Based on past drilling programs, undetected spills, cross contamination of aquifers from improper casing and cementing of wells, and leachate from produced water pits are not just possible but likely given the amount of drilling that will occur during the life of the plan. As always, the BLM and the State agencies tasked with oversight of the oil and gas program would utilize all available opportunities to reduce this risk and address problems when they occur.

Comment: pp. A13-7; Well Pads and Facilities, 3rd paragraph Comment: In the second sentence, a recommendation is made that requires closed drilling systems if groundwater is encountered during

setting (Attie conductor. If this occurs, using a liner for the pit will be adequate to protect shallow groundwater as is mentioned in the previous sentence. We would recommend deleting this sentence.

Response: See updated text in Appendix 13, Best Management Practices for Reducing Non-Point Source Pollution, in the RMP FEIS concerning the use of closed drilling systems in areas of shallow water.

Comment: Item: pp. A13-7; Well Pads and Facilities, 3rd paragraph: BP America's Comments To RMPPA –Comment: The fifth sentence states that drilling pits are exempt from hazardous waste regulations as long as they are covered with 5 feet of soil. The basis of the exemption for drilling pits is based upon the Resource Conservation and Recovery Act (RCRA) and subsequent guidance developed by the EPA. There is no criteria that classifies a pit as hazardous depending upon the depth of soil coverage. This sentence should be deleted from the FEIS.

Response: The text in Appendix 13, Best Management Practices for Reducing Non-Point Source Pollution, has been updated in the RMP FEIS to correct the reference to pit exemption from hazardous waste regulations.

Comment: The DEIS appears to allow for significant energy development. However the development may not be orderly, by the influence of restrictions and seasonal closures. In many areas the windows of opportunities are narrow, and could add too much risk for logical development. These restrictions may be counter to goals of the Mineral Leasing Act that demands recovery of the federal fluid resource.

Response: Details concerning field development plans are generally determined by the leaseholder or leaseholders (in the case in which a unit exists). Companies are aware up-front concerning the operational constraints under which they must operate, and they must plan their operations accordingly.

Comment: P. 4-256 Second paragraph: This paragraph states that the DEIS has no jurisdiction on private land. However, the discussions above clearly illustrate how the DEIS will have a de-facto designation on private land if there is any federal involvement in a proposal. Because BLM will aggressively request that the same management practices is not applied to private land as federal, or the permit may be denied.

Response: BLM planning decisions do affect private lands where private surface overlies federal minerals. This situation is relatively uncommon, but it does exist. This discussion will be rewritten in the Rawlins RMP FEIS to reflect the effects of BLM decisions on private lands.

Comment: Page 4-53, Methods of Analysis, Sixth Bullet: “Areas closures...can be retroactively applied to existing valid oil and gas leases...through site-specific post-lease actions (e.g. APDs and ROWs) that are supported by project-specific NEPA analysis.” BLM's analysis of minerals impacts is based on the assumption that BLM has the authority to impose certain restrictions retroactively on existing leases. Although BLM may have the authority to impose some restrictions retroactively, BLM is constrained by valid existing rights. (See Page 4-3 where BLM states, citing to 43 C.F.R. § 1610.5-3(b) that valid existing rights will be recognized). APC questions whether BLM has the authority to retroactively impose area closures, surface use restrictions and no-lease restrictions to lands already leased. Recommendation: BLM should revise the analysis to clarify that BLM has the discretion to impose certain restrictions to valid leases only with the voluntary agreement of the lessee. However, BLM's discretion is not unfettered as it has previously recognized in Instruction Memorandum. If mitigation would render a proposed operation uneconomic or technically infeasible so that a prudent operator would not proceed, such degradation may be considered necessary for the management of the oil and gas resource.

Response: BLM does have the right to make changes to operational requirements on leaseholds after the lease has been acquired. There are limits on what and how much mitigation BLM can impose. Regulatory and legal mechanisms are in place to deal with disagreements over specific situations.

Comment: The BLM should also consider an alternative that would require phased development of the Field Office as far as oil and gas is concerned. We recommend that such an alternative would be best implemented at the leasing stage, so that complex unitization issues need not impede the process.

Response: Implementation of this proposal would be extremely complex and difficult to accomplish. Authorization to conduct oil and gas exploration and development activities is granted through a leasing process. Lease acreage for a single oil and gas lease can consist of anywhere from 40 to 2,560 acres for competitive leases up to 10,240 acres for noncompetitive leases. When a single lease offer is being put together for issuance, an attempt is made to keep all of the separate parcels (seldom is one single 2,560-acre parcel leased) within an area the size of a single township. The lease expires after 10 years, assuming annual rental payments are made. Leases that are let go for whatever reason get compiled into new lease offers. The lease can be held for an extended period, as long as mineral production is maintained. The lessee shall have the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove, and dispose of all the leased resource in a leasehold, subject to stipulations attached to the lease; restrictions deriving from specific, nondiscretionary statutes; and such reasonable measures as may be required by the Authorized Officer to minimize adverse impacts to other resource values, land uses, or users not addressed in the lease stipulations at the time the operations are proposed. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures are deemed to be consistent with lease rights provided they do not (1) require relocation of proposed operations by more than 200 meters, (2) require that operations be sited off the leasehold, or (3) prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). Thus, a major problem with respect to the use of “staged” development is the potential violation of lease rights. Legal mandates require that lease sales be held at least quarterly. Policy dictates that public lands be kept open to mineral exploration and development, unless closure or restriction is mandated by Congress or can be justified in the national interest (BLM Manual 3031.06A). The current leasing system has been in place, with minor modifications, for several decades. Lease ownership is often fragmented and scattered across the public lands. Although “staged” development might be attempted in a limited area where leases are set to expire, its application to the public lands in general would require a complete overhaul of the current leasing system. If this could be accomplished, it would predictably take a long time. Requiring drilling activities to occur in a “staged” manner does not appear to be a truly feasible possibility.

Comment: Add a new summary here, select a category, and if appropriate check the 'Substantive' box. Appendix 18, Compensation (Off-Site) Mitigation: “When a threshold is reached, off-site mitigation would be applied.” This statement infers that compensation mitigation will be made mandatory. Additionally, APC objects to off site mitigation being applied solely to the oil and gas industry. Recommendation: BLM needs to ensure that this appendix is consistent with IM 2005-069 “Interim Offsite Compensatory Mitigation for Oil, Gas, Geothermal and Energy Rights-of-Way Authorizations” as it represents the most recent Washington guidance.

Response: Appendix 18, Compensation Mitigation, has been updated in the RMP/FEIS to include corrected references to the voluntary nature of offsite mitigation in the Rawlins RMP/FEIS.

Comment: In its coal development mitigation guidelines, BLM proposed to allow strip mining on crucial big game winter range as long as “appropriate mining methods” achieve a “long-term balance between habitat and coal development. DEIS at A2-13. In addition, coal mining would be allowed as close as 1/4

mile from sage grouse leks, and as close as 1/2 mile from leks during the breeding season. DEIS at A2-14. Thousands of acres of crucial winter range as well as known sage grouse breeding and nesting areas are contained within tracts which would be eligible for offering for strip mining. See DEIS at A2-13. There is no reason to believe that strip mining is in any way compatible with the maintenance of crucial big game winter range or sage grouse breeding habitats; all crucial winter ranges and areas within 3 miles of sage grouse leks should be declared unsuitable for mining and withdrawn from coal leasing.

Response: As described in Appendix 2, 2003 Coal Screening Process Summary in the RMP FEIS, the first two steps of the Coal Screening Process (43 CFR 3420.1-4[e][1-4]) have been applied to all federal coal review areas as part of the planning process. Step 2, Application of Coal Unsuitability Criteria, Criterion 15, provides that "...a lease may be issued if, after consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected." See the results of this evaluation for Criterion 15 in Appendix 2 in the RMP FEIS.

Comment: pp. 4-54; 4.8.1 Minerals, 5th full paragraph, 5th line: This type of stipulation should be specified to be only applied when such facilities are directly affected by oil and gas activities.

Response: Fences, gates, etc., will be replaced or maintained when these are directly affected by oil and gas development activities. See updated text in Section 4.8.1 of the Rawlins RMP FEIS.

Comment: For O&G/CBNG areas to be developed, we would recommend that you convene lessees to develop innovative ways to minimize road construction and plan the development to minimize waste of water resources and to lower impacts to air quality.

Response: Once BLM issues a lease, it is up to the leaseholder how and when they wish to begin operations. They can form units, which are agreements between leaseholders concerning how to explore and/or develop their leaseholds. BLM approves these agreements, but the contents of the agreements are determined by the leaseholders. The leaseholders generally try to achieve efficiency of operations to keep their costs low. Oil and gas exploratory units are discussed in Appendix 20 of the Rawlins RMP/FEIS.

Comment: Many wildlife stipulations are based upon inaccurate scientific data and need to be revised such as with sage grouse habitat.

Response: The wildlife stipulations are based on the most current scientific data that have been analyzed in coordination with different agencies, such as the WGFD, to determine their effectiveness and suitability towards the protection of specific species.

Comment: Interim Development: BR urges the BLM to follow the requirement found in Instruction Memorandum (IM) 2001-191 during the current planning process. This IM states that "When a RMP is being amended or revised, BLM will continue to process site-specific permits, sundry notices, and related authorizations on existing leases in an expeditious manner while ensuring compliance with NEPA and other laws, regulations, and policies."

Response: You are correct, but please note that compliance with NEPA and other laws, regulations, and policies includes a provision that prevents BLM from initiating any project or action that might preclude selection or consideration of a viable alternative during the NEPA analysis phase of the project.

Comment: Monitoring Stipulations, COAs, and Mitigation: It is imperative that BLM monitor lease stipulations, conditions of approval (COAs), and other mitigation measures to ensure necessity and reasonableness. BLM must use scientifically based monitoring more extensively than it currently is.

Resource activities, including grazing, mining, wildlife and vegetation management, air and water quality, and oil and gas activities, must be integrated so that cumulative effects are more accurately determined. Effective monitoring will ensure that the oil and gas program is not adversely affected by perceptions that cumulative effects exceed acceptable levels.

Response: BLM monitors activities on the public lands, collects relevant information to assess changes that may be occurring, and searches for cause-effect relationships that may suggest the need for changes to various management prescriptions. See Appendix 17 in the RMP/FEIS concerning monitoring and evaluation for a discussion of these subjects.

Comment: Adaptive Management (AM): BR supports the principles of adaptive management; however, currently in Wyoming there appear to be three different approaches employed. BLM must agree upon and utilize a single template so that interested parties have an understanding of what the process entails. Performance-based parameters should be utilized as they encourage innovation and embrace changing conditions and new technological advancements. Monitoring must be a critical component in measuring the effectiveness of these parameters. BR recommends that AM and the related performance-based parameters be specific enough for the project proponents to fully understand the expectations at the time of permit issuance. Unclear and unspecified parameters, mitigation and monitoring causes serious difficulties for project proponents in terms of scheduling, unanticipated costs and uncertainty. BLM has utilized the “work group” concept in the past with respect to AM. This concept may be ineffective when it involves participants with little technical expertise. BR recommends that BLM make the following changes relative to the “work group” concept: 1) individuals selected must possess a scientific and working knowledge of the issues being addresses as well as an understanding of the industry project subject to the monitoring under consideration; 2) project proponents must be represented on the work group; 3) costs associated with monitoring must be considered by the work group (including the project proponent) prior to implementation of the monitoring; 4) a balanced approach to managing all resources must be an integral part of the process; and 5) an open dialogue with public participation is imperative.

Response: The text of Section 2.7.2, Activity Plan Working Groups, has been updated in the Rawlins RMP/FEIS.

Comment: I request that BLM clarify that it will work cooperatively with prospective developers and not overly restrict development through the unnecessary use of special restrictions, limitations, management practices and the like.

Response: BLM has been working cooperatively with operators for decades. Some operators have provided funding for resource studies, etc., during that time. Mitigation applied to exploration and development activities is applied on an as-needed basis to reduce the associated effects on other natural resources that may be present in a given area.

Comment: I recommend the use of flexible management practices developed in the context of individual project proposals to allow development of our mineral resources to proceed while continuing to protect the environment. I urge the BLM to refine its Conservation Alternative to be more flexible in its approach to restrictions, best management practices and similar limitations on needed energy and mineral development.

Response: BLM's current management practices are flexible. Mitigation measures are only applied when a specific need for them has been identified. Exceptions, etc., can be granted at specific times and places when these mitigating measures are deemed to be unnecessary. Appendix 9 of the Rawlins RMP FEIS addresses exceptions, modifications, and waivers criteria. BMPs are only applied when a specific need for

them has been identified. BMPs are discussed in Appendix 15, Best Management Practices, in the RMP FEIS.

Comment: Real human needs are met by energy and mineral development and these needs must be afforded as much weight as the perceived harm that the “no development” interests conjure. Every restriction, management practices and lost development opportunity adds to the already high price that we pay as energy consumers. We should impose such economic penalties only on bona fide scientific proof and only after weighing the relative harm to our human needs as opposed to possible environmental impacts.

Response: The Mining and Minerals Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources. This act includes all minerals, including sand and gravel, geothermal, coal, and oil and gas. The BLM recognizes that public lands are an important source of the nation’s mineral and energy resources, some of which are critical and strategic. BLM is responsible for making public lands available for orderly and efficient development of these resources under principles of balanced multiple use management, and in accordance with the concepts of Sustainable Development as defined at the World Summit on Sustainable Development in 2002.

Comment: We continue to move forward with a quickening pace of development, without considering the breadth of impacts that attend the development. Such a lack of precision is dangerous when there are no “do-overs” to full-field development. The current RMP seems to perpetuate the past scenario of consuming the “environmental increment” on the front end, and then requiring parties to work feverishly for the remainder of the life of the planning document to mitigate our initial missteps. I am committed to responsible development, but we must be deliberate in how we proceed. By being mindful upfront, we allow the full development potential of the field to be realized, while still providing for adherence to sound environmental principles and the law.

Response: BLM is well aware of the impacts associated with development. The Rawlins RMP FEIS addresses these impacts in Chapter 4, in which each resource category is discussed with respect to its interaction with other resources present on the public lands. Various types and degrees of mitigation are used to reduce the effects of competing resources on each other.

Comment: Logic says that since BLM has leased huge areas to mineral development, conversely, there should be an equally “huge” effort made to protect special resources under your management.

Response: The BLM decision that lands are open or closed to oil and gas exploration and development is not determined by an acre-for-acre balancing of development versus preservation. The issue as described in Section 1.3.1, Planning Issues for Issue 1: Development of Energy Resources and Mineral-Related Issues, is whether energy development—with the consideration of appropriate stipulations, mitigation measures, and BMPs necessary to protect sensitive resources—is suitable for a given area of public land, or whether energy development should be restricted or avoided. This issue, as with the other issues identified in Section 1.3.1, is addressed through the development and analysis of a reasonable range of alternatives presented in the RMP FEIS.

Comment: Because of the complicated nature of overlapping and conflicting resources and resource uses, I ask that the BLM consider relevant language from New Mexico, specifically from the RMP Amendment for Fluid Minerals Leasing and Development in Sierra and Otero Counties. In this Amendment, the BLM required new lessees to form exploratory units prior to commencing drilling activity. The special protection measure allowed the BLM to manage the surfaced in an orderly way, as well as to control the

rate of reservoir development. This concept should be explored as a potential option in the Rawlins Field Office area.

Response: The current oil and gas regulations do provide for the formation of exploratory units that can be voluntarily entered into by the operators. Most of the area expected to be subject to future development is in the infill stage of development rather than the exploratory stage of development.

Comment: [page 4-42 4.7.1 Impacts Common to All Alternatives] Mining could have more of an impact if stricter penalties are not imposed and protection of short term impacts areas are not mitigated prior to starting of developments.

Response: Section 2.4, Minerals, in the RMP/FEIS states that stipulations to protect sensitive resource values would be based on interdisciplinary review of individual proposals and environmental analysis. Section 4.8, Minerals, Methods of Analysis, assumes that the level of locatable mineral development would be minimal. Application of currently available requirements, mitigation measures, and BMPs during review and environmental analysis of any mining proposal is adequate to protect other resource values.

Comment: In the siting of any wind energy project, reasonable consideration should be made relative to sage grouse nesting and brood-rearing habitats, VRM class designations and other resource uses affected by such projects. The offsite mitigation instruction memorandum, dated February 1, 2005, might provide some guidance in this regard.

Response: During the site-specific environmental analysis for any project proposal, the needs of all resources on the public land are considered through the alternative formulation process for the NEPA document as well as through the development of project-specific and site-specific mitigation measures, BMPs, and COAs for any authorization. Offsite mitigation, as described in Appendix 18, Compensation Mitigation, would be considered, as appropriate.

Comment: The DEIS reveals that significant impacts are associated with the CBM development. Unfortunately, the DEIS does not provide a full disclosure of probable impacts of CBM development, especially those associated with production and disposal of CBM product water, even in a general sense. It appears that the BLM intends to assess impacts associated with each well site at the time such site would be developed. This might be acceptable practice if it were clear that potential impacts to natural resources are well understood, have been carefully considered, and guiding principles, regulations and procedures for dealing with such impacts have been adopted. However, judging from the information provided in the DEIS this does not appear to be the case.

Response: Decisions about managing oil and gas resources on public lands are made at two general levels. Plan-level decisions include leasing decisions that result in issuance of oil and gas leases with the expectation that some exploration or development activity may be proposed at some time in the future. Project-level decisions encompass exploration and development decisions that result in ground disturbance from oil and gas wells, roads, and associated infrastructure. Site-specific analysis cannot be accomplished until a specific project proposal is received by the BLM. Therefore, site-specific analysis cannot be completed at the leasing stage. This level of analysis is beyond the scope of the RMP/FEIS. CBNG production is discussed in Appendix 20, Oil and Gas Operations, in the RMP/FEIS.

Comment: The DEIS gives conflicting statements on how geophysical exploration will be managed. In the summary and the Minerals section at 2.3.7, it is stated, “vehicular use for necessary tasks (as defined in the glossary), such as geophysical exploration, including project survey and layout, is subject to off-highway vehicle (OHV) designations. Exceptions may be necessary to protect other resources on a case-

by-case basis following environmental analysis.” On the same page, under 2.3.8, it is stated, “off-road OHV use would be allowed for necessary tasks except in WSAs and specific SMAs.”

Response: BLM has revised Chapter 2 and Appendix 20 of the Rawlins RMP FEIS establishing a consistent policy with respect to what constitutes a necessary task, along with relevant guidelines with respect to where and how it will be applied.

Comment: Geophysical activities must be eliminated from the OHV requirements. Geophysical exploration is subject to the terms and conditions of BLM’s permitting process, it is unwarranted to require the activity to comply with recreational OHV uses, especially those that do not require prior BLM approval. Geophysical exploration is subject to analysis under the National Environmental Protection Act, during which relevant mitigation measures are imposed. For these reasons geophysical exploration should be specifically excluded from these restrictions.

Response: Table 2-1, Detailed Comparison of Alternatives, and Appendix 20, Oil and Gas Operations, in the RMP/FEIS have been updated to establish a consistent policy with respect to what constitutes a necessary task, along with relevant guidelines with respect to where and how it will be applied. For all authorized actions occurring on the public lands, BLM retains the right to stipulate how, where, and under what conditions the authorized activity would be carried out.

Comment: The BLM has no authority to change stipulations or the terms of the lease contract unless it obtains voluntary agreement from the lessee. The agency’s authority to impose conditions of approval on a proposed project is also limited by the terms associated with the issued lease, as directed in 43 CFR 3101.1-2, Surface Use Rights, “A lessee shall have the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove and dispose of all the leased resource in a leasehold subject to: Stipulations attached to the lease; restrictions deriving from specific, nondiscretionary status; and such reasonable measure as may be required by the authorized officer to minimize adverse impacts to other resource values, land uses or users not addressed in the lease stipulations at the time operations are proposed. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting, or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 day in any lease year.” It is legally required that Valid Existing Rights be honored. The DEIS must incorporate these right into the entire EIS and resulting RMP.

Response: BLM recognizes valid existing rights established by law and regulation. Legal remedies exist for anyone who feels that his or her legal rights are being violated, allowing them to reestablish or assert the validity of those rights. Section 1.3.2 of the Rawlins RMP/FEIS discusses constraints and guidelines that direct the preparation of the FEIS. BLM can modify lease terms based on the completion of a NEPA analysis of a proposed well through the application of COA attached to a specific APD. Limitations as to the extent of these modifications are described in the section of the regulations that you cite in your comment.

Comment: It is further recommended: That the provisions of the Western Heritage Alternative, in regards to oil and gas activities, be adopted. An increased use of directional drilling will allow many of the areas closed to drilling under this alternative be drained from surface facilities on adjacent leases. I will examine drilling reaches of one, two and three miles in this regard. In addition, I will examine development situations where a nine section [3 mile spacing] will be more appropriate.

Response: The Western Heritage Alternative would exclude most, if not all, of the RMPPA to surface occupancy for mineral development purposes. It is thus not a feasible option. Directional drilling is considered where possible and is one of many mitigation measures used in the RMPPA. However, directional drilling is not always possible, given geology and certain technical issues. The drilling company in consultation with BLM ultimately decides the method of drilling.

Comment: The development of mineral interests owned by private individuals should be allowed. However, this activity should minimize surface damage, while allowing mineral extraction.

Response: The BLM has no control over development of mineral interests on private mineral lands. In the rare instance in which lands may be federal surface and/or private mineral lands, the mineral interests may be developed; however, an environmental document would be prepared, and reclamation and mitigation measures developed prior to allowing development.

Comment: Flagstone rock extraction in the Powder Rim area should be restricted. The nature of the landscape is being irreversibly changed with little or no oversight.

Response: There are no current valid permits in the Powder Rim area. All permits issued in the past required no off-road use, hand removal only, no heavy equipment. Because of continued violation of these stipulations, the geologist has recommended no further permits be issued in this area.

Comment: In those areas of high energy development potential, there should be special consideration for the efficient and orderly development of the resource. To explain, in those areas of extreme importance to wildlife, the area is set aside for special management for the maximization of the wildlife resource. This should also be the practice in those areas of high energy potential where it is feasible and practicable relative to other resource values.

Response: The areas with the highest potential for containing energy resources are the same areas that contain important natural resource values, such as wildlife, recreation, and watershed. BLM operates under the legal mandate of the FLPMA, which requires that public lands be managed for multiple use of the resources that are present. Lands that have been leased will be subject to mitigation developed to protect those other resources present on the public lands.

Comment: Page 4-215; Fourth paragraph: Increased legal and illegal harvest are not the result of mineral development, they are the result of humans using available access. Third line; delete the word “pumping”.

Response: BLM has made corrections, and these will be reflected in the FEIS document.

Comment: Alan Ver Ploeg, Mapping Geologist, comments that the general geology, stratigraphy, structural geology, and paleontology are adequately addressed. His only suggestion is that this information could be better organized with the inclusion of a general geologic map covering the area included in the Rawlins District, an index map showing the structural elements and specifically the basins and uplifts, etc., and a nomenclature chart showing the stratigraphic nomenclature for the basins and uplifts in the Rawlins District--this could be done in table form with a brief description of the formation lithology and significant fossil resources. Using written discussions of all this type of information can get a bit tedious and hard to follow. The WSGS has geologic maps and a nomenclature chart which would help in constructing these types of illustrations and tables.

Response: As you have pointed out, adequate information is present in the existing document.

Comment: The alternatives must recognize that potential takings could result if the technology used by operators to develop the leased mineral resources is virtually mandated by its inability to utilize the surface above its leased minerals. An operator's inability to extract minerals from its leases is a denial of the rights associated with lease acquisition and could be construed as a taking.

Response: BLM recognizes valid existing rights. If a leaseholder believes that his or her rights are being violated, there are legal remedies that they can pursue to reacquire or reestablish those rights.

Comment: I want to remind BLM to honor valid existing rights for leases that have already been let in areas that may change from the previous RMP to the new RMP as it is revised. Two, just because areas are leased does not mean that they will be developed. Sometimes we don't have the technology to economically develop those minerals.

Response: BLM will honor valid existing rights.

Comment: According to the BLM, nearly 50 percent of the area is already under oil and gas lease. Therefore, there are certain valid, existing rights that need to be honored as a result of those leases.

Response: BLM will honor lessee rights.

Comment: The EIS should specify that all leases should be issued with a no surface occupancy stipulation on the entire lease pending completion of a site-specific EIS to determine if surface occupancy can be allowed. We believe these recommendations are consistent with the provisions in BLM's Land Use Planning Handbook. See BLM Handbook H-1601-1, at Appendix C page 16.11

Response: BLM disagrees with your suggestion that all leases should be issued with an NSO stipulation and that these recommendations are consistent with the provisions in BLM's Land Use Planning Handbook (H1601-1).

Comment: It is crucial that lease stipulations that ensure necessary protection of public lands be developed and included in the RMP for attachment to all leases.

Response: Lease stipulations have been developed that ensure the protection of various natural resources present on the public lands. See Appendices and discussions throughout the EIS document that cover air quality, vegetative resources, cultural resources, visual resources, etc. These will be applied to leases as necessary.

Comment: The statement that carbon dioxide is readily available from reserves to the west is not correct, because all carbon dioxide that is currently compressed is contracted to Anadarko, Merit, and ChevronTexaco for ongoing EOR projects. Carbon dioxide sequestration in coal has the added benefit of enhancing coalbed natural gas recovery because the coal preferentially replaces methane from the coal structure with carbon dioxide (The statement in the document is not technically correct the way it is written).

Response: See changes reflected in the Rawlins RMP FEIS in Section 3.8.4.

Comment: Page 4-215; 1st paragraph regarding water needed to drill wells. Comment: This sentence should be changed to provided that other water sources (wells, recycling, off site/out of area transport, stock ponds, etc) are also used. A relatively small number of wells are drilled using live surface water sources, and the connectivity of ground water sources to the surface is unknown, the presumption of connectivity cannot be made without basis.

Response: This portion of the FEIS document will be modified to reflect your suggested change in the wording.

Comment: The last paragraph under oil and gas on p. 3-35 has some statements that need to be clarified; specifically the comment that all coal in this area is low rank. Coal beds in the Hanna Basin and along the Atlantic Rim attain ranks of bituminous. Is bituminous coal considered low rank?

Response: Your proposed changes will be reflected in the Rawlins RMP FEIS.

Comment: The location of a mining claim alone does not give rise to a vested property right. Instead, a mining claim only creates a vested property right if there has been a discovery of a valuable mineral; until that condition has been demonstrated, no rights exist. In determining whether such a discovery has been made, the BLM must take into account the cost of the recovery of the mineral and the costs associated with compliance with all State and Federal laws and regulatory requirements, including those intended to protect the environment. Unless a claimant can prove that it can recover the mineral at a profit, the BLM has no choice but to reject a claimant's mining plan of operations. The BLM has the authority to contest mining claims on these grounds "when such action is deemed to be in the public interest." Of determinative importance in defining the "public interest" is the requirement that BLM "shall" take actions to prevent unnecessary or undue degradation of the public lands, and this provision has special force and effect relative to "hard rock" mining. 43 U.S.C. §1732(b). The RMP must include binding provisions that reflect these requirements. Currently the EIS fails to meet these requirements with regard to locatable minerals.

Response: A mining claim confers the right to explore for and develop the mineral resource. The claimant is not required to prove the claims validity at this phase.

Comment: The RMP should guide and regulate the configuration and timing of lease offerings when parcels are offered for lease. Currently, industry nominates parcels that are typically scattered throughout millions of acres of public lands. As a result, pre-leasing environmental analyses are not based on common airsheds, river drainages, or other ecological units; nor do they adequately assess cumulative impacts. The RMP should ensure that these problems are not perpetuated, yet it fails to do this.

Response: Implementation of this proposal would be extremely complex and difficult to accomplish. Authorization to conduct oil and gas exploration and development activities is granted through a leasing process. Lease acreage for a single oil and gas lease can consist of anywhere from 40 to 2,560 acres for competitive leases up to 10,240 acres for noncompetitive leases. When a single lease offer is being put together for issuance, an attempt is made to keep all of the separate parcels (seldom is one single 2,560-acre parcel leased) within an area the size of a single township. The lease expires after 10 years, assuming annual rental payments are made. Leases that are "let go" for whatever reason get compiled into new lease offers. The lease can be held for an extended period, as long as mineral production is maintained. The lessee shall have the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove, and dispose of all the leased resource in a leasehold subject to: stipulations attached to the lease; restrictions deriving from specific, nondiscretionary statutes; and such reasonable measures as may be required by the Authorized Officer to minimize adverse impacts to other resource values, land uses, or users not addressed in the lease stipulations at the time the operations are proposed. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures are deemed to be consistent with lease rights provided they do not (1) require relocation of proposed operations by more than 200 meters, (2) require that operations be sited off the leasehold, or (3) prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). Thus, a major problem with respect to the use of

“staged” development is the potential violation of lease rights. The Draft RMP/EIS evaluated a range of alternatives recommending a balanced approach that ensured protection of resource values while allowing opportunities for mineral and energy exploration and production. The management actions contained in the Proposed RMP/FEIS allow minerals and energy exploration and production, while protecting other resource values.

Comment: As noted above, FLPMA requires consideration of the relative scarcity of the values involved, and the availability of alternative sites for producing those values must be considered. See, FLPMA § 202(c). Often, the most appropriate opportunities for oil and gas development from both an economic perspective and ecological perspective are within known and operating oil and gas fields, while the dwindling wildlife, scenic, wilderness and other resource values throughout the rest of the area are irreplaceable and should be protected. The EIS fails to consider this issue, and again, in our view, oil and gas drilling is not appropriate in potential wilderness areas, ACECs, important wildlife habitat, and in areas with important archeological, historical, or paleontological resources due to the great relative value of the resources involved.

Response: FLPMA also indicates that the public lands be managed in a manner that recognizes the nation’s need for domestic sources of minerals, food, timber, and fiber from the public lands, including implementation of the Mining and Minerals Policy Act of 1970. Known oil and gas fields show a tendency to expand over time. Those lands in the RMPPA that have been found to possess wilderness qualities are preserved in the existing WSAs. WSAs will not be subject to future leasing, unless released from wilderness consideration by Congress; however, grandfathered leases do exist in some WSAs. Impacts to wildlife, archeological, historical, and paleontological resources are mitigated, as discussed in the Rawlins RMP FEIS.

Comment: The RMP should explicitly prohibit oil and gas leasing whenever the reasonably foreseeable development scenario (RFD) has been exceeded, especially if this development is occurring due to new technological innovations that have not been subject to adequate environmental review. Coalbed methane (CBM) is a clear example in this regard. Moreover, the environmental impacts of CBM development have not been adequately evaluated (water from CBM development is the obvious example). Under these conditions, leasing should not proceed until updated environmental analyses are completed, and the RMP should so provide. Recent decisions of the Interior Board of Land Appeals and the Tenth Circuit Court of Appeals require the unique impacts of CBM development to be analyzed. *Pennaco Energy, Inc. v. U.S. Dep't of the Interior*, 377 F.3d 1147 (10th Cir. 2004). Yet the EIS fails to consider CBM impacts in any detail at all, or acknowledge its unique impacts, even though intense levels of CBM development are quite likely, especially in the Atlantic Rim area.

Response: The fact that the total number of wells in an area may exceed the total number of wells projected in the selected alternative does not automatically mean that a supplement to the NEPA document or a revision or amendment to the RMP is necessary. It is possible that exceeding the number of wells projected in the selected alternative may not result in exceeding the predicted level of environmental effects. Mitigation of environmental effects through successful reclamation, clustering wells on shared well locations, and minimizing pad and road construction can prevent the level of impacts from substantially exceeding the impacts analyzed in the original RMP/EIS or other NEPA documentation. Decisions about managing oil and gas resources on public lands are made at two general levels. Plan-level decisions include leasing decisions that result in issuance of oil and gas leases with the expectation that some exploration or development activity may be proposed at some time in the future. Project-level decisions encompass exploration and development decisions that result in ground disturbance with wells, roads, and associated infrastructure. The proper place to address coalbed methane (CBM) or coalbed natural gas (CBNG) activities is in the project EIS where this activity is being proposed. The effects of CBNG development were analyzed in the Rawlins RMP/DEIS and FEIS.

Comment: The BLM fails to objectively analyze any purported “limits” on oil and gas development in the EIS; it would fail to continue regulating this activity as required by law. The BLM fails to focus analysis of the purported “adverse effects” of lease stipulations on energy supplies on realistic estimates of economically recoverable resources, not just “technically recoverable” resources. The recently released study done pursuant to the Energy Policy and Conservation Act (EPCA) that BLM relies on failed to do this.¹² If oil and gas is not economical to extract, there will be no adverse impacts on supply from stipulations designed to protect wildlife, archeological sites, recreation sites and other public assets. The BLM should use well-supported high and low range estimates of gas and oil prices in any analysis of the amounts of oil and gas affected by stipulations, yet it fails to do so in the EIS.¹³

Response: The fact that the total number of wells in an area may exceed the total number of wells projected in the selected alternative does not automatically mean that a supplement to the NEPA document or a revision or amendment to the RMP is necessary. It is possible that exceeding the number of wells projected in the selected alternative may not result in exceeding the predicted level of environmental effects. Mitigation of environmental effects through successful reclamation, clustering wells on shared well locations, and minimizing pad and road construction can prevent the level of impacts from substantially exceeding the impacts analyzed in the original RMP/EIS or other NEPA documentation. Decisions about managing oil and gas resources on public lands are made at two general levels. Plan-level decisions include leasing decisions that result in issuance of oil and gas leases with the expectation that some exploration or development activity may be proposed at some time in the future. Project-level decisions encompass exploration and development decisions that result in ground disturbance with wells, roads, and associated infrastructure. The proper place to address CBNG activities is in the project EIS in which this activity is being proposed. In the NEPA document, the RFD baseline scenario is adjusted under each alternative to reflect varying levels of administrative designations, management practices, and mitigation measures. Under each alternative, the new adjusted level of projected oil and gas activity then leads to an analysis of related environmental effects in the Environmental Consequences section of the NEPA document. Factors used to project future activities include (but are not limited to) a review of published oil and gas resource information (including a number of online databases) for the area, a call for data from oil and gas operators, future oil and gas price estimates, petroleum technology research and development, geophysical activity, bid performance at lease sales, limitations on access, and infrastructure.

Comment: ES-8 The Table on Oil and Gas Constraints makes several things clear. Only 1% of the planning area with high oil and gas potential is closed to oil and gas leasing and/or development and only 16% of the areas subject to no surface occupancy have high oil and gas potential, but of course they can still be developed. BLM should recognize this simple fact throughout the Rawlins RMP EIS—it should be reflected in the impacts analysis in the EIS, and in terms of the protective stipulations/requirements that will be applied. Will it do so? Why or why not? Where has it done so? The Table states that 10% of the area is either closed to oil and gas development or subject to NSO. This is mathematically incorrect. The correct number is 9.5% (284,780 divided by 3,000,000). Moreover, on the previous page it is stated that the mineral estate is composed of 4.59 million acres and on page ES-1 it is stated that the RFO administers 3.4 million acres of surface estate, meaning the correct percentage of the area closed or subject to NSO is likely even less than indicated.

Response: The acreage within the RMPPA that is closed to oil and gas leasing or affected by NSO or various timing or distance restrictions is reflected throughout the RMP FEIS. The table presents the acreage restricted by closure or NSO in high, moderate, and low oil and gas potential lands (3 million acres rounded up). There are also lands classified as very low or no potential within the RMPPA. The 3 million acres (rounded up) is a subset of the 3.5 million acres of public land surface or the 4.5 million acres of federal mineral estate. The table is correct as presented.

Comment: One of the most important issues for oil and gas operators is the prospect for permitting delays during the extended period of time required for scoping, EIS preparation, selection of management alternatives, and completion of the RMP revisions. This issue is of particular significance for the Rawlins Area given the expected increase in Atlantic Rim coalbed methane development activity. We urge BLM to follow the requirements of Instruction Memorandum IM-2001-191 during the current planning process, which are aimed at sustaining multiple use: “When a RMP is being amended or revised, BLM will continue to process site-specific permits, sundry notices, and related authorizations on existing leases in an expeditious manner while ensuring compliance with NEPA and other laws, regulations, and policies. The BLM has the authority and discretion to condition its approval of proposed actions (APDs and other site specific activities) with reasonable measures (including relocation, redesign or delays in the proposed action) so as to reduce the effect of actions on other resource values and uses, consistent with the lease rights granted (see 43 CFR 3101.1-2). That is, BLM can use its authority and discretion to condition its approval of proposed actions to not constrain alternatives under consideration in a RMP revision or amendment consistent with the lease rights granted. Actions that may appear to reduce a lessee’s right to reasonably develop a lease should be cleared through the State Director and Regional Solicitor’s Office.”

Response: BLM will continue to comply with existing regulatory and policy guidance associated with its permitting activities.

Comment: A critical component of the planning revision process is the RFD scenario. We recommend that BLM use an improved, integrated stipulation-mitigation-monitoring approach to also ensure that only the “net effect” of oil and gas surface disturbance and other impacts is considered in ongoing scenario evaluation. The BLM currently quantifies a development scenario based on the number of wells and associated infrastructure surface disturbance; however, BLM appears to have no consistent process for considering the “net effect” of multiple well sites and ongoing plugging, reclamation, or site remediation activities. Most operators including ChevronTexaco maintain ongoing plugging and restoration programs, particularly in older Wyoming fields. Over the next several years a “credit” against operating surface disturbance will be a significant factor in an accurate energy development impact assessment. Incorporating an accurate “net-effects” approach will improve planning flexibility and enable additional energy production to occur under the existing scenario.

Response: All impacts cannot be tied directly to acres of disturbance. Impact assessment associated with some resources, such as air quality, depend on the actual number of producing wells. Also, there are potential impacts associated with fragmented habitat and disruption of migration routes with respect to wildlife resources. Thus, a simple integrated process for assessing impacts, tied to number of acres disturbed and plugging and restoration programs, etc., would still leave out some potentially significant factors that need to be taken into account with respect to impact analysis.

Comment: BLM's regulations regarding environmental protection at the field development and well drilling stage are general and non-specific. See 43 C.F.R. § 3162.5-1(b). Consequently, the RMP should adopt specific definitions of what constitutes “due care and diligence,” “undue damage to surface or subsurface resources” and what specifically must be achieved to “reclaim the disturbed surface...” At a minimum, the requirements of Onshore Oil and Gas Order No. 1, especially relative to reclamation plans, must be strictly complied with, and the EIS should analyze whether wells reclaimed in the past pursuant to these requirements have actually been effectively reclaimed. If not, appropriate modifications should be made to ensure effectiveness. Just as important, it is crucial that the RMP and any subsidiary instruments (leases, APDs, surface use plans, etc.) provide assurance, based on a realistic assessment of past, current and projected budgets and allocations of personnel, of adequate inspection and enforcement as a precondition to lease issuance and operations. The EIS fails to address these issues or make any of the indicated provisions. Monitoring and enforcement needs are addressed further, below.

Response: Applicable regulations, notices to lessees, onshore orders, and other guidance explain the meaning and usage of these terms where they occur. When a question comes up concerning how something is to be done and more explanations or examples are needed, these are provided to affected parties. Thus, additional guidance is supplied on an as-needed basis. BLM monitors oil and gas activities on a regular basis.

Comment: The lease acreages limits specified at 43 C.F.R. § 3101.2-1(a) should be monitored and enforced by BLM, and the RMP should make provision for such. BLM's LR2000 database makes this a relatively simple undertaking. To the extent BLM views this as an activity for the State Office or other BLM administrative level, the EIS should nevertheless discuss what actions are being taken at that other level and provide citizens with information so they can become aware of and monitor those efforts.¹⁴ BLM must ensure it complies with Instruction Memorandum 2004-218, yet it fails to address this issue, or how the RFO will assist the State Office in complying with this directive.

Response: The size (number of acres) of each lease is established by the BLM Wyoming State Office before the leases are put up for sale. The size remains constant throughout the life of the lease. If leases are bought and sold by subsequent owners, then applicable acreage limitations for those new owners are enforced. This is an administrative function not within the scope of the RMP.

Comment: BLM treats the level of disturbance resulting from oil and gas development as being fairly represented by the gross acreage of disturbance anticipated, which is 57,819 acres. A33-5. That said, it provides little or no discussion of this gross level of disturbance and what its impacts will be. See 2-98, 4-213 to 214, 4-238, 4-265 to 66. Yet 57,819 acres is a huge area, as is shown in Exhibit 8.6 BLM should acknowledge the magnitude of this impact and clearly analyze and present what the impacts of such vast disturbance will be. And of course, the impacts will be far greater than just the gross acreage of land disturbed by oil and gas development.

Response: BLM is well aware that some impacts cannot be assessed on the basis of number of acres (i.e., air quality). BLM disagrees with your view that impacts associated with the proposed alternatives in the DEIS have not been assessed. Impacts have been further addressed in the Rawlins RMP/FEIS.

Comment: The regulations at 43 C.F.R. § 3162.3-1(a)(3) allow BLM to regulate well spacing pursuant to "any other program established by the authorized officer"-well spacing designations of the State oil and gas commission are not controlling. BLM should fully utilize this authority by specifying, in the final RMP, well spacing densities that are appropriate for protecting other resource values in an area, as required pursuant to 43 U.S.C. § 1732(b) and other law.

Response: In Wyoming the acceptable well-spacing program conforms to the spacing order issued by the Wyoming State Oil and Gas Commission. This is in accordance with the referenced regulations, which state: An acceptable well-spacing program may be either (1) one which conforms with a spacing order or field rule issued by a State Commission or Board and accepted by the Authorized Officer, "In Wyoming, state spacing orders are accepted by the Authorized Officer."

Comment: [I Encourage BLM to consider the following points] Mandate less environmentally damaging types of drilling. Directional drilling and the re-injection of coalbed methane wastewater should be required in the Great Divide's new management plan.

Response: Directional drilling is considered where possible and is one of many mitigation measures used in the RMPPA. However, directional drilling is not always possible, given geology and certain technical issues. The drilling company in consultation with BLM ultimately decides the method of drilling. Reinjection of wastewater would be assessed at the project-level stage of NEPA analysis.

Comment: 4-53 It is stated that RFDs and RFAs for oil and gas can be found in Appendix 33. While numbers can be found in that Appendix, there is no explanation of how they were calculated. What were the sources of data for this crucial information regarding oil and gas development? See A33-5 to 6. How were these data verified or validated? What other sources of information that might have been available were not used in these calculations, and why? What assumptions had to be made to produce these numbers? Simply, how good and reliable are the numbers on page A33-5 relative to oil and gas development?

Response: Factors used to project future activities include (but are not limited to) a review of published oil and gas resource information (including a number of online databases) for the area, a call for data from oil and gas operators, future oil and gas price estimates, petroleum technology research and development, geophysical activity, bid performance at lease sales, limitations on access, and infrastructure.

Comment: A15-1 It is very unclear when Appendix 15 will be applied. It would apparently been applied under alternative 3 to big game crucial winter ranges (2-71), known sensitive species habitats (2-75), sage grouse (2-76), and various special management areas (4-132, 4-135, 4-151). In fact, all of these BMPs should be applied to any oil and gas development because BLM is required to apply them pursuant to IM 2004-194 and 2004-110 Change 1 (discussed in more detail above). Does BLM agree that IMs 2004-194 and 2004-110 Change 1 require BLM to consider applying these BMPs to any oil and gas development activities? Why or why not? We would suggest that a clear statement should be inserted stating that the Appendix 15 provisions will be required for all oil and gas development whenever the BMPs are determined to be appropriate. And as indicated above, the RMP should provide some definition of when BMPs are “appropriate.”

Response: Directional drilling and drilling multiple wells from a single well pad are not feasible in all cases and will continue to be used when necessary. Using two-track routes for access in lieu of engineered roads is not appropriate for most situations. Use of flareless completions is not possible under current federal regulations, although changes in state requirements could modify this at some time in the future. Onsite bioremediation covers a broad range of possibilities. In some cases it would be necessary to haul materials to legally mandated disposal sites, and one would probably not want such materials to remain on the well sites. Bioremediation of some materials can be accomplished by spreading material out on the ground and mixing it with certain types of bacteria, which are added to the material to break it down biologically. Different situations would demand the use of different methods for disposal. BMPs are innovative, dynamic, and economically feasible mitigation measures applied on a site-specific basis to reduce, prevent, or avoid adverse environmental or social impacts. BMPs are applied to management actions to aid in achieving desired outcomes for safe, environmentally sound resource development, by preventing, minimizing, or mitigating adverse impacts and by reducing conflicts. BMPs will be applied as they are deemed to be necessary.

Comment: The RMP should discuss the general conditions under which BMPs are “appropriate” so as to comply with IM 2004-194.

Response: Directional drilling and drilling multiple wells from a single well pad are not feasible in all cases and will continue to be used when necessary. Using two-track routes for access in lieu of engineered roads is not appropriate for most situations. Use of flareless completions is not possible under current federal regulations, although changes in state requirements could modify this at some time in the future. Onsite bioremediation covers a broad range of possibilities. In some cases it would be necessary to haul materials to legally mandated disposal sites, and one would probably not want such materials to remain on the well sites. Bioremediation of some materials can be accomplished by spreading material out on the ground and mixing it with certain types of bacteria, which are added to the material to break it down biologically. Different situations would demand the use of different methods for disposal. BMPs are

innovative, dynamic, and economically feasible mitigation measures applied on a site-specific basis to reduce, prevent, or avoid adverse environmental or social impacts. BMPs are applied to management actions to aid in achieving desired outcomes for safe, environmentally sound resource development, by preventing, minimizing, or mitigating adverse impacts and by reducing conflicts. BMPs will be applied as they are deemed to be necessary.

Comment: 2-104 to 105 Table 2-6 when compared with the oil and gas classifications table on page ES-7 and the data on pages 2-27 to 28 is confusing. The relationship of these different portrayals of stipulations need to be explained. There are many apparent inconsistencies, not the least of which is the total acreage.

Response: BLM will verify the information as suggested and explain the relationship of the information in these tables in the Rawlins RMP/FEIS. Table 2-1, Detailed Comparison of Alternatives, combines both federal surface and subsurface acreages subject to leasing. Table 2-6, Areas of Fluid Mineral Lease Conditional Requirements by Hydrocarbon Potential (Approximate Federal Subsurface Acres), breaks out lease acreages in various types of management areas with respect to how many acres are in high, moderate, or low potential areas for development of hydrocarbon resources. The primary difference in the two tables is that Table 2-6 does not include acres of “very low” and “no” oil and gas potential.

Comment: A27-1 Does BLM agree that it has independent authority and responsibility to regulate well spacing and location requirements? 43 C.F.R. § 3162.3-1(a). How does it reconcile this regulatory responsibility with the statement that “Spacing and location requirements are within the jurisdiction of the Wyoming Oil and Gas Conservation Commission...”? Where has BLM exercised the responsibility to ensure that “Each well shall be drilled in conformity with an acceptable well-spacing program...approved or prescribed by the authorized officer after appropriate environmental and technical reviews”? What environmental review was undertaken to arrive at any such approval? Please specify the EA, EIS, or Documentation of NEPA Adequacy where this was done. If BLM has not approved an acceptable well-spacing program pursuant to “appropriate environmental and technical reviews” it must do so before any well can be approved, and it would seem the RMP EIS would be an appropriate place to do this. Does BLM agree? Why or why not?

Response: In Wyoming the acceptable well-spacing program conforms with the spacing order issued by the Wyoming State Oil and Gas Commission. This is in accordance with the referenced regulations, which state: “An acceptable well-spacing program may be either (1) one which conforms with a spacing order or field rule issued by a State Commission or Board and accepted by the Authorized Officer, ... In Wyoming, state spacing orders are accepted by the Authorized Officer.”

Comment: A27-2 Reference is made to split estates. BLM should explicitly ensure that the provisions and requirements of IM 2003-131 and the Memorandum from the Assistant Solicitor, Onshore Minerals, Division of Mineral Resources to the Deputy State Director, Mineral Resources, Wyoming State Office, BLM Management (dated July 19, 2004) are recognized and implemented, not only with regard to bonding on split estates, but for all bonding issues.

Response: The provisions in the subject Instruction Memorandum only apply to split estate situations. The referenced requirements are applied as necessary to oil and gas operations on split estate lands. These requirements are based on applicable law which specifies how and when they are to be applied.

Comment: We have just begun to do an in-depth review of the DEIS for the Rawlins RMP and have not yet taken a position on any of the alternatives. Therefore, I would like to make some general comments in support of energy and mineral development. Nearly 50 percent of the Rawlins area is under existing lease, therefore there are valid existing rights associated with those leases that cannot be ignored. Demand for natural gas in this country is increasing dramatically it is anticipated that demand continues to accelerate

there will be a 30 percent shortfall of supply within the next 15 years. The oil and gas industry provides a service to the country that cannot be ignored.

Response: BLM has taken note of the information provided. Hopefully, this information was also provided to BLM as a precursor to the preparation of the RFD scenario that was used as the basis for EIS analysis. The Rawlins RMP/FEIS will reflect any necessary changes in the discussion of this topic.

Comment: A-32 It would appear that the primary means by which hazardous substances are managed and controlled at oil and gas development sites is through the requirement to have lined disposal pits. If this is true, BLM should provide a discussion of this technique. What is involved with constructing these pits and ensuring they do not leak? How often do they leak and what have the consequences been of any such leaks? How effective are they? Has BLM ever monitored old waste disposal ponds for leaks or other off-site transport of hazardous substances? What have the results of that monitoring showed? Are there options to this form of management of hazardous wastes? What are those options? Are they ever used? Why or why not? What would be the advantages and disadvantages of alternative disposal methods? We specifically request that BLM evaluate the efficacy of requiring disposal of hazardous substances to occur at licensed off-site facilities. We have never seen such an analysis in an APD EA, so the RMP would appear to be an appropriate place for this kind of analysis to occur. Does BLM agree or disagree? Why? Will BLM commit in the RMP to considering the option of trucking hazardous wastes off-site in all APD EAs? Why or why not?

Response: BLM-permitted activities are controlled through monitoring and stipulations that require mandatory compliance with all applicable federal, state, and local laws, regulations, policies, guidance, and procedures for hazardous materials generation, use, storage, treatment, transportation, and disposal. Violations through accidental occurrences or noncompliance are possible. Stipulations require mitigation of releases in accordance with applicable laws and regulations. Violations are generally subject to fines. Although industrial operations are regulated to minimize potential spills, accidents cannot be eliminated completely. Monitoring, oversight, and review of authorized activities, coupled with effective management controls, reduce the severity of impacts from releases. BLM does not seek “monetary damages.” Material Safety Data sheets do nothing to prevent spills or releases of hazardous substances; they do provide guidance and information concerning the handling and disposal of hazardous substances. Drilling fluids generally consist of water and bentonite associated with well cuttings and generally do not contain toxic constituents. Liners are used when necessary, primarily to prevent the leakage of water into the ground, so that it remains available for use in the drilling operations. Frac fluids used to increase fluid flow from the producing subsurface formations do contain a wide variety of chemicals. Frac fluids are hauled to the well sites in tanks. Fluids that do not remain in the subsurface formations as a result of fracturing operations are extracted and placed back into the tanks to be hauled away for further use.

Comment: 2-28 It is stated that stipulations are shown in Table 2-6. Added to the stipulations that may apply should be an indication of what BMPs will be required. BLM is required to do this by Instruction Memoranda (IM).Nos. 2004-194 and 2004-110 Change 1.

Response: BMPs to be considered in nearly all circumstances include the following: Interim reclamation of well locations and access roads soon after the well is put into production; Painting of all new facilities a color which best allows the facility to blend with the background, typically a vegetated background; Design and construction of all new roads to a safe and appropriate standard, “no higher than necessary” to accommodate their intended use; and Final reclamation recontouring of all disturbed areas, including access roads, to the original contour or a contour which blends with the surrounding topography.

Comment: APPENDIX 33 REASONABLY FORESEEABLE DEVELOPMENT SCENARIO Despite the direction in Instruction Memorandum 2005-89, it appears BLM intends to retain the past policy of

using numbers identified in the Reasonably Foreseeable Development Scenario (RFD) as a threshold for oil and gas exploration and development rather than general criteria in the analysis. We object to BLM's use of any projected numbers as a threshold for oil and gas activity. In addition, we have reviewed the RFD and reserve the right to submit new information pertaining to those baseline figures.

Response: The fact that the total number of wells in an area may exceed the total number of wells projected in the selected alternative does not automatically mean that a supplement to the NEPA document or a revision or amendment to the RMP is necessary. It is possible that exceeding the number of wells projected in the selected alternative may not result in exceeding the predicted level of environmental effects. Mitigation of environmental effects through successful reclamation, clustering wells on shared well locations, and minimizing pad and road construction can prevent the level of impacts from substantially exceeding the impacts analyzed in the original RMP/EIS or other NEPA documentation.

Comment: 2-28 It is also stating that areas with “overlapping minor constraints” can be deemed major constraints. What is the basis for claiming that overlapping minor constraints are somehow additive and in fact “add up to” a major constraint? How this determination was made, and the underlying basis for it, need to be explained in detail, otherwise there is no basis for understanding why multiple stipulations in fact are major constraints. On page 4-67 it is stated that if in an area has stipulations for big game, raptors and grouse drilling can only occur during a two month window. But it is also stated these habitats are “not common.” On how many acres does this' situation occur? How many of those acres have a high, medium and low gas development potential? Can most oil and gas wells be drilled in 60 days? What is the likelihood exceptions would be granted if a longer period was needed to drill a well? The data at <http://www.wy.blm.gov/rfo/wildlife/exceptionsfy05.htm> shows exceptions are usually granted, and Appendix 9 makes it clear this will be the case. BLM should provide maps showing what stipulations apply and where. This information is known, otherwise the above classifications could not have been made and map 2-38 prepared.

Response: In areas where they exist, some overlapping constraints extend the period during which new wells cannot be drilled. In the case of seasonal restraints, areas exist where a restriction based on protection of one resource ends while a similar period for another resource begins. The overall effect is to limit access to potential drill hole locations over long periods of time. Conventional and coalbed gas development potential maps were overlain, and 10 combinations of development potentials were identified, such as non-coalbed low-coalbed gas high, non-coalbed moderate-coalbed gas low, and non-coalbed moderate-coalbed gas high. The area covered by each classification of restriction (B, C, or D classification) within the development potential areas was calculated using Geographic Information System (GIS) software. In general, it requires an average of 40 days to drill and complete a well less than 10,000 feet deep, 65 days for wells between 10,000 and 14,000 feet deep, and 190 days for wells greater than 14,000 feet deep. Currently, most of the wells being drilled are in the range of 10,000 to 14,000 feet. Exceptions are individually assessed based on the specific situation and are granted on a case-by-case basis.

Comment: Map 3-5 is obviously modified directly from the Survey's oil and gas map, yet the Wyoming State Geological Survey is given no credit. A general comment is that many different vintages of price and production data for oil and gas are used in this document. There are some statements that refer to 2000 data, when 2003 and 2004 data are available.

Response: The oil and gas development scenario on which the proposed action and alternatives are based was completed in January 2004. This assessment included a wide range of current data sources available at the time it was in preparation.

Comment: Page 4-214 Minerals Management: Comment: In first full paragraph both CBM and CBNG are used. CBM is not on the list of acronyms provided in the document.

Response: CBM is an acronym for coalbed methane; these essentially refer to the same resource.

Comment: The Albany County Commission resolves to urge the Bureau of Land Management to incorporate the following management vision into its new long term management plan, specifically: Requiring that produced waters from coalbed methane drilling be injected into deep strata in ways that do not jeopardize important groundwater aquifers.

Response: BLM will consider injection of produced waters associated with CBNG (CBM) development on a case-by-case basis.

Comment: Because energy reserves are found in discrete areas, Questar recognizes that this development will occur in a concentrated area. The RMP should recognize the value of the energy reserves and allow reasonable access to these areas. Our concern is that conflicting resource needs have been resolved with energy reserves being considered as the least valuable resource.

Response: Energy reserves are not always found in discrete units. There are situations called “continuous plays” that may involve, for example, deep gas reservoirs, which are spread across large areas. This seems to be the case in the Wamsutter area. Historically, energy resources are developed after all of the other natural resources have mitigating measures established for protecting and managing them.

Comment: Questar is also concerned that the number of well locations assumed in the preferred alternative not be applied as a limit or cap. Different types of natural gas production, coal seam versus tight sands, may require more or less locations as prospective areas are explored.

Response: The number of well locations projected for the Proposed Plan is not considered to be a cap or limit. It only provides a proposed action with a reasonable number of wells that might be drilled and that can be analyzed in the EIS document.

Comment: The final RMP should state the BLM's intent to recognize valid existing lease rights. Our experience has been that Conditions of Approval far exceeding lease terms are often applied to permits. The BLM should clarify that existing lease rights can be restricted only with voluntary agreement of the leaseholder.

Response: BLM recognizes valid existing rights.

Comment: 2-28 Oil and Gas Classification C is stated to be areas open, but subject to “major” constraints “such as” NSO stipulations on an area more than 40 acres or more or more than 1/4 mile wide. What is the basis for this statement? Why is an NSO on areas greater than these limits considered a “major” constraint while those within these limits apparently not considered major? What data supports this assertion? What studies support this assertion? Was this limit derived from industry sources? Which industry sources and when? If industry supplied the information leading to this claim, was it peer reviewed or otherwise subject to any validation?

Response: Classification C restrictions have a moderate to severe effect on the location of wells, such as NSO of areas 40 acres or less in size and requirements that view sheds be protected, thus requiring that well locations and production facilities not be visible from areas such as historic trails. Subsurface targets cannot be reached given these types of restrictions that affect the placement of potential well sites.

Comment: 2-28 Seasonal stipulations in Oil and Gas Classification B are referred to both as “minor” and “moderately restrictive.” What are they and why are they assigned ?

Response: An NSO restriction of 40 acres or less is not considered a major constraint, as current technology allows reasonable access to develop a reservoir within the 40 acres. NSOs in excess of 40 acres or ¼ mile result in difficulty accessing the reservoir or desired bottom hole location. See BLM Handbook H-1601-1 Appendix C, page 23.

Comment: 2-27 Reference is made to including “standard lease stipulations” in Appendix 20. Appendix 20 does not appear to contain these stipulations, or an explanation of them.

Response: Standard lease stipulations are found on BLM Form 3100-11, Offer to Lease and Lease for Oil and Gas. BLM expects that the part you are interested in is Section 6, Conduct of Operations, which indicates: “Lessee shall conduct operations in a manner that minimizes adverse impacts to the land, air, and water, to cultural, biological, visual, and other resources, and to other land uses and users. Lessee shall take reasonable measures deemed necessary by lessor to accomplish the intent of this section. To the extent consistent with lease rights granted, such measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures...”

Comment: Another key concern is the stipulation that seasonal restrictions might be applied to operation and maintenance of an already developed project in big game winter habitat and raptor and sage grouse habitat. Operation, maintenance and repairs of producing wells and related facilities absolutely must not be subject to discretionary shut-down. Questar will work with agencies to implement practical procedures to avoid unnecessary impact to wildlife but BLM must not be able to shut down production operations and maintenance of developed fields

Response: BLM provides for managing the public lands and their various resources, so that they are used in the best combination that will best meet the present and future needs of the American people. This direction indicates that not all uses need to be accommodated in all areas. The Proposed Plan in the supplemental DEIS and the Proposed Plan in the FEIS reflect this provision. Not all areas would be open to all types of uses in the Rawlins RMPPA. In addition, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the Proposed Plan and Proposed Plan, including those that provide protection of sensitive resources.

Comment: the EIS fails to properly consider the direct and indirect impacts of oil and gas development activities.

Response: The direct and indirect impacts of oil and gas development are adequately addressed in Chapter 4 of the RMP FEIS.

Comment: EIS fails to include a realistic, well supported, economically rational, and scientifically based RFD, since it includes nothing more than unsupported statements of likely development activity. Since the RFD is insufficient, there is no proper analysis and determination of connected, related, and cumulative impacts.

Response: An RFD for oil and gas is a long-term projection of oil and gas exploration, development, production, and reclamation activity. The RFD covers oil and gas activity in a defined area for a specified period of time. The RFD projects a baseline scenario of activity, assuming that all potentially productive areas can be open under standard lease terms and conditions, except those areas designated as closed to leasing by law, regulation or executive order. The baseline RFD scenario provides the mechanism to

analyze the effects that discretionary management decisions have on oil and gas activity. The RFD also provides basic information that is analyzed in the NEPA document under various alternatives. The RFD is neither a planning decision nor the “No Action Alternative” in the NEPA document. The RFD is a technical report typically referenced in the NEPA document. Only a summary of the RFD report should be included in the NEPA document. In the NEPA document, the RFD baseline scenario is adjusted under each alternative, to reflect varying levels of administrative designations, management practices, and mitigation measures. Under each alternative, the new adjusted level of projected oil and gas activity then leads to an analysis of related environmental effects in the Environmental Consequences section of the NEPA document. Factors used to project future activities include (but are not limited to) a review of published oil and gas resource information (including a number of online databases) for the area, a call for data from oil and gas operators, future oil and gas price estimates, petroleum technology research and development, geophysical activity, bid performance at lease sales, limitations on access, and infrastructure.

Comment: Rod DeBruin, Oil and Gas Geologist, would like to see a stratigraphic column that shows the relationships that are discussed in section three, p. 3-29- 3-31.

Response: See changes incorporated in the Rawlins RMP/FEIS in Section 3.8.1.

Comment: The EIS should also consider ways the BLM itself can maximize the use of renewable or alternate energy sources, and increase the efficiency of energy use in all activities BLM undertakes, including in its buildings and automobile fleet. The EIS fails to do this. The RMP should require increased use of renewable or alternate sources of energy by BLM and should include requirements for increased energy use efficiency. These efforts should be documented and publicized.

Response: Your suggestion is outside the scope of the Rawlins RMP analysis.

Comment: The EIS should address the problem of global warming and the steps BLM can take to reduce this problem. For example, coal seam fires could unnecessarily contribute to global warming. Flaring of hydrocarbon by-products contributes to global warming, and much of that may be unnecessary. BLM should make a thorough analysis of how activities it undertakes or authorizes contribute to the generation of carbon dioxide or other “greenhouse gasses,” and the RMP should make provisions to reduce and minimize them.

Response: BLM encourages the use of technology that reduces the amount of hydrocarbon byproducts put into the air as the result of flaring during completion operations at new oil and gas wells. A certain amount of flaring is considered acceptable under current regulations. Current operators are ultimately subject to the State of Wyoming, which has primacy in establishing and enforcing air quality standards in the state.

Comment: A specific purpose and need for an EA for an APD is to determine whether an EIS is needed. 40 C.F.R. § 1501.4; Onshore Oil and Gas Order No. 1, III.G.5.a. Yet it is extremely rare, at best, for an EIS to be prepared at the APD stage. The RMP should provide guidance for when the cumulative impacts of approving a number of APDs rises to the level of producing significant impacts on the human environment, requiring preparation of an EIS. This is especially important if drilling in an area has not previously been analyzed in a “full field” EIS because there is no question that the approval of several individual wells can have cumulatively significant impacts. And even if a prior full field EIS has been prepared, the RMP should provide guidance as to when supplementation of the prior EIS should occur. See 40 C.F.R. § 1502.9(c) (outlining requirements for supplementing an EIS). Again, the EIS does not currently discuss, consider, or make provision for these issues.

Response: The manager responsible for authorizing an action may determine that a proposed action must be analyzed in an EIS on the basis of either the results of the EA or on other information and data on potentially significant impacts. Determining whether an EA or EIS is required for the processing of a particular APD is outside the scope of the current RMP revision.

Comment: The RMP should ensure that reclamation standards are enforced and increase bonds to cover actual reclamation costs, so neither taxpayers nor landowners are left to foot the bill. In the past, BLM has estimated the cost of reclaiming just one well ranges from \$2,500 - \$75,000. The EIS should include up-to-date estimates for costs of reclamation of development activities in the RFO area. No such estimates are currently provided. The RMP should increase bonds as needed to ensure the full costs of reclamation are met and should not rely on per lease bonds (currently set at \$10,000) or on statewide bonds (now \$25,000) if they will not cover anticipated costs. BLM has this authority. See., e.g., 30 U.S.C. § 226(f); 43 C.F.R. §§ 3104.1(a), 3104.5, 3106.6-2.

Response: Current statewide and nationwide bond amounts are legally mandated. BLM does recommend bonding increases in situations in which increases seem warranted. The establishment of bond amounts is outside the scope of the current RMP effort.

Comment: The EIS should, but fails to, include a realistic assessment and analysis of oil and gas well plugging, abandonment, reclamation, and enforcement needs and problems. The RMP must provide that wells are abandoned and plugged in accordance with the provisions of 43 C.F.R. § 3162.3-4 and Onshore Oil and Gas Order No. 1. In addition, the BLM must not only quantify the needs that projected development will entail in terms of personnel and costs, it must also explain how it will ensure that these needs will in fact be met. In our view, if BLM lacks resources to engage in monitoring and enforcement sufficient to ensure compliance with all requirements applicable to oil and gas drilling on public lands within the RFO area, then it should not allow further development to occur-it should deal with the backlog of needs first. BLM has sufficient authority, and a responsibility, to prevent development if it lacks sufficient resources to ensure compliance with requirements applicable to oil and gas development. See, e.g., 43 U.S.C. 1732(b).

Response: BLM is aware of its responsibilities with respect to monitoring and enforcing regulatory requirements associated with oil and gas operations on the public lands. Inspections are conducted on a regular basis to monitor activities in the oil and gas fields. When problems are noted, they are documented, and steps are taken to correct deficiencies that are found.

Comment: The use of hydraulic fracturing and the impacts of drilling fluids (muds) and chemicals must be considered explicitly in the EIS. Hydraulic fracturing and drilling fluids contain a wide array of chemicals, many of which are clearly toxic or hazardous. The appropriateness of using these chemicals must be addressed in the EIS. We specifically recommend that, if “framing” is contemplated, the option of requiring water only - i.e., prohibiting the use of toxic chemicals - be considered. We also ask that Exhibit 10 attached hereto be considered.¹⁵ The RMP should provide for complete and thorough compliance, monitoring, and enforcement by BLM. Spill prevention and cleanup requirements must be specified, and provisions for collecting and disposing of these wastes must be provided for in detail, again with sufficient monitoring and enforcement to ensure compliance. While Federal pollution and toxic and hazardous waste law may provide some exemptions for the oil and gas industry, BLM still has sufficient authority, and responsibility, under NEPA and FLPMA to require inventory and monitoring of these chemicals, as well as spill prevention, cleanup, and mitigation plans. See, e.g., 43 U.S.C. 1732(b); 43 C.F.R. §§ 3162.4-1(a), 3162.5-1(c)-(d); Onshore Oil and Gas Order No. 1, III.G.4.b.(7). See also Executive Order No. 13,016 (delegating authority to land management agencies to enforce CERCLA on lands they manage); BLM Manual MS-1703 (Hazardous Materials Management). In a related issue, BLM should ensure that oil and gas drilling operations (including well pads) comply with any applicable

stormwater discharge requirements, including acquiring NPDES permits, as required. Even if stormwater permits may not be required at this time, they likely will be in the future, so the RMP should make provision for ensuring necessary permits are obtained.

Response: BLM stipulates that oil and gas operators must comply with all state and federal mandates with respect to their use of hazardous materials. When questions or problems arise involving hazardous materials handling, etc., BLM coordinates with the appropriate state or federal agency to bring the situation to resolution.

Comment: 4.22, Unavoidable Adverse Impacts Page 4-267, second paragraph/third sentence; “Permanent conversion of vegetative resources to other uses such as transportation or energy development reduces the quantity of vegetation resources.” Comment: Delete “energy development” because it is not a permanent conversion.

Response: The discussion has been modified in Section 4.22 of the RMP FEIS to reflect that energy development does not result in a permanent conversion.

Comment: Page 4-267. 4.23. 3rd paragraph, 3rd sentence: “However, permanent oil and gas well sites...”. Recommendation: “Permanent” should be replaced with “Productive” as well sites are not permanent.

Response: The suggested change will be made in the Rawlins RMP FEIS.

Comment: BLM sometimes seems to take the position that it must approve an application for permit to drill (APD) within 30 days. This is incorrect, and the RMP should specify the circumstances under which BLM may take more than 30 days to review an APD. Final action on APDs can be, and must be, delayed as needed to conduct needed, thorough environmental analyses. 43 CFR § 3162.3-1(h)(3); Onshore Oil and Gas Order No. 1, III.B.2. The list of reasons for extending the time for when an APD may be processed is not limited to just the enumerated concerns in Onshore Oil and Gas Order No. 1, and the preparation of an EA or EIS is a specific reason for extension of the APD processing time. Onshore Oil and Gas Order No. 1, III.D. The EIS does not currently discuss, consider, or make provision for these issues.

Response: Applicable guidance does provide for additional time needed to complete NEPA analysis for APDs. Very few APDs have been processed within the 30-day time frame in the Rawlins Field Office. Existing policy and guidance are beyond the scope of the current RMP revision.

Comment: Page 4-268. First full sentence: “However, permanent oil and gas well sites.” Recommendation: “Permanent” should be replaced with “Productive” as well sites are not permanent.

Response: The suggested change will be made in the Rawlins RMP FEIS.

Comment: The BLM has failed to consider alternatives that provide for phased development of oil and gas resources, that is an alternative that would regulate the pace and timing of oil and gas development. The failure to do this means that as a matter of law BLM has failed to consider a reasonable range of alternatives. Northern Plains Resource Council v. U.S. Bureau of Land Management, No. CV 03-69-BLG-RWA, slip op. at 19 (D. Mt., Feb. 25, 2005)

Response: Implementation of this proposal would be extremely complex and difficult to accomplish. Authorization to conduct oil and gas exploration and development activities is granted through a leasing process. Lease acreage for a single oil and gas lease can consist of anywhere from 40 to 2,560 acres for

competitive leases up to 10,240 acres for noncompetitive leases. When a single lease offer is being put together for issuance, an attempt is made to keep all of the separate parcels (seldom is one single 2,560-acre parcel leased) within an area the size of a single township. The lease expires after 10 years, assuming annual rental payments are made. Leases that are let go for whatever reason are compiled into new lease offers. The lease can be held for an extended period, as long as mineral production is maintained. The lessee shall have the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove, and dispose of all the leased resource in a leasehold subject to: stipulations attached to the lease; restrictions deriving from specific, nondiscretionary statutes; and such reasonable measures as may be required by the Authorized Officer to minimize adverse impacts to other resource values, land uses or users not addressed in the lease stipulations at the time the operations are proposed. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures are deemed to be consistent with lease rights provided they do not (1) require relocation of proposed operations by more than 200 meters, (2) require that operations be sited off the leasehold, or (3) prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). Thus, a major problem with respect to the use of “staged” development is the potential violation of lease rights. The Draft RMP/EIS evaluated a range of alternatives recommending a balanced approach that ensured protection of resource values while allowing opportunities for mineral and energy exploration and production. The management actions contained in the Proposed RMP/FEIS allow minerals and energy exploration and production, while protecting other resource values.

Comment: The EIS fails to discuss how or where future site-specific impacts of proposed leasing and development will be considered. BLM fails to provide a discussion what levels of NEPA compliance are currently underway or likely to be undertaken in the future. It is crucial that this “look before you leap” approach be adopted in the EIS to ensure that a lease is not issued before the site specific resource values in an area are fully understood.

Response: Section 3.8.4 concerning leasable minerals has been updated in the RMP FEIS to include a table and map of existing oil and gas development projects. Future leasing and development activity is expected to be generally concentrated in the areas around existing oil and gas fields, as depicted on Map 3-5. The impact analysis in Chapter 4 of the RMP FEIS has been updated to address impacts associated with existing and future oil and gas development activities in the RMPPA.

Comment: ES-7 RFD. The limit should not be wells but either pads or acres disturbed. Note that the table should show % of either RMP area or BLM minerals acres. Short-term disturbance is 0.51% of 11.2 MM acres of RMP or 1.3% of leaseable minerals. It is important to minimize the surface disturbance not limit the number of wells. Recommendation: At a minimum, the limit of development must be the number of well pads. It should be a total of disturbed acres. BLM can assess the disturbance on an annual basis. This allows pad drilling and reclamation to be used for total disturbance conservation. The number of wells does not allow credit for reclamation efforts or plugged wells.

Response: The fact that the total number of wells in an area may exceed the total number of wells projected in the selected alternative does not automatically mean that a supplement to the NEPA document or a revision or amendment to the RMP is necessary. It is possible that exceeding the number of wells projected in the selected alternative may not result in exceeding the predicted level of environmental effects. Mitigation of environmental effects through successful reclamation, clustering wells on shared well locations, and minimizing pad and road construction can prevent the level of impacts from substantially exceeding the impacts analyzed in the original RMP/EIS or other NEPA documentation.

Comment: The Rawlins District covers about 17,500 square miles in south central and south east Wyoming. There are four RMP alternatives being proposed (the specifics of each alternative are explained in the abstract), but even Alternative 1 (No Action), which supposedly leaves land management policies as they are now, seems to be changing the way OHV travel restrictions are interpreted for seismic exploration. Apparently, for seismic exploration, OHVs (Off Highway Vehicles) are to be restricted to existing roads and trails on about 2/3 of this area. This is extremely problematic (not to mention worrisome) for geophysical data acquisition projects. Instead of specifically tying geophysical exploration OHV use to the general OHV restrictions in the RMP, geophysical exploration should be specifically excluded from these restrictions. The geophysical industry is already tightly regulated and controlled by BLM land management policy and does not need a broad brush restriction such as this that would make much of what the industry does impractical to accomplish.

Response: BLM has revised the text to resolve the conflicting statements regarding what constitutes a necessary task. Table 2-1 recognizes geophysical tasks as a “necessary task”. See the Glossary definition found on page G-13.

Comment: ES-8 Oil and Gas Constraints for EPCA GAS Potential areas. It should be noted that 10 % of the area will be closed to leasing or have NSO constraints while only 0.3% of the area would have long-term disturbance. These designations in EPCA are different than those used in the RFD. Recommendation: Look on www.rawlinsrmp.com click on documents and bulletins near the top of the page. Then scroll way down to the bottom of the page where it says Resource Mineral Occurrence and Development Potential Report. Maps 4-26 and 4-28 were used in the RFD.

Response: EPCA does not have any designations specific to the Rawlins Field Office area, so the numbers are definitely going to be different. Also, the mineral potential report addresses acres of high, moderate, and low oil and gas potential present in the Rawlins Field Office area but does not incorporate the influence which any form of restrictions might have; so again, the numbers would necessarily have to be different.

Comment: The EIS fails to fully address the potential negative impacts of renewable sources of energy. For example, wind energy farms can have negative consequences for avian species if not properly designed and sited. Biomass energy, if it is derived from old growth forests or other inappropriate sources, can wreak havoc on ecosystems or be little more than a guise for logging. The EIS must address these issues fully and openly, but it fails to do so. The RMP should adopt provisions to ensure these negative effects are avoided or at least mitigated. Second, the potential for renewable energy sources developed elsewhere to obviate the need for fossil fuel development in the RFO area should be addressed. Almost all agree, fossil fuels are not a long-term solution to our energy needs and that renewable energy production must be fostered, so the EIS should address this aspect of energy development.

Response: The Draft RMP/EIS evaluated a range of alternatives recommending a balanced approach that ensured protection of resource values while allowing opportunities for mineral and energy exploration and production. The management actions contained in the Proposed RMP/FEIS allow minerals and energy exploration and production while protecting other resource values. Impacts from proposed mineral and energy exploration and production will require additional NEPA analysis. Alternative sources of energy are still in the developmental stages. Each type poses limits on where and how efficiently it can be used. Research and development continue concerning the effective use of these energy sources. The impacts of wind energy development to the various resources are addressed, where appropriate, under each resource heading in Chapter 4 of the RMP/FEIS.

Comment: Page 2-19 APWG formation requirements include: “Proposals for oil and gas surface location densities or acres disturbed above a certain amount per unit acres.” again sets an arbitrary limit (See

Appendix 18, 16 wells per section or 80 acres disturbed out of 640 acres) rather than basing decisions on statutorily required or scientifically justifiable reasons. A need for an APWG may be triggered “Where two or more resources of interest to cooperating agencies are in conflict.” This is also arbitrary. All major projects or activities will require an additional NEPA analysis in an EA or EIS. Once the impacts are analyzed, then mitigations can be determined. The APWG action bypasses the NEPA process. Recommendation: Triggering a WPWG should be based on statutorily required or scientifically justifiable reasons. If the Appendix 18 well density is based on the Wyoming Game and Fish Oil and Gas Impacts document, it should be so stated. That document likewise does not base the density trigger on analysis. This section should be modified to state that all triggers must be based on statutorily required or scientifically justifiable reasons.

Response: BLM will modify Section 2.7.2 to address your concerns in the Rawlins RMP FEIS.

Comment: BLM employs Sundry Notices pursuant to 43 C.F.R. §§ 3162.3-2 and 3162.3-3 (authorizing use of Faun 3160-5, the Sundry Notice). In our experience, Sundry Notices are used for a wide array of activities that cumulatively if not individually, can have significant impacts. There does not seem to generally be any compliance with NEPA when a Sundry Notice is processed, or any public notice or opportunity to comment. The RMP should define precisely when the use of Sundry Notices is appropriate. The RMP should define when NEPA compliance is required and what opportunities exist for public involvement relative to Sundry Notices. The EIS currently fails to address this important issue that has significant environmental consequences.

Response: Most Sundry Notices processed by the Rawlins Field Office deal with operational issues, such as changes in drill-hole casing and spacing of facilities on the well pad, etc. Appropriate NEPA consideration is given to these activities on the basis of applicable law and regulations. The processing of Sundry Notices is outside the scope of the current RMP revision.

Comment: Page 2-18 2.7.2 Activity Plan Working Group. The APWG objectives do not include seeing that mitigations for major activity plans or RMP amendments are either statutorily required or scientifically justifiable. Minimizing controversy and consensus-based mitigation do not meet the EPCA standard. Recommendation: Include the EPCA objective in the APWG requirements Remove the consensus based mitigation statement.

Response: Activity Plan Working Groups (APWG) are subject to applicable legal and policy mandates. EPCA only mandates the completion of an inventory of oil and gas reserves and access impediments. This statement has been updated in the Rawlins RMP FEIS.

Comment: ES-7 Minerals, Oil and Gas. Integrating EPCA Inventory into the RMP. RMP actions are evaluated to: 1st Bullet, “Clearly present mitigation requirements to reduce impacts of oil and gas operations on other resource.” 2nd Bullet, “Ensure that such mitigation is either statutorily required or scientifically justifiable and is the least restrictive measure necessary to accomplish the desired level of resource protection.” 3rd Bullet, “The mitigation requirements would be monitored to determine if more or less restrictive measures might accomplish the same goal.” This evaluation is not adhered to in the draft document relative to O&G development and wildlife; sage grouse winter areas being a case in point. Recommendation: All mitigations in the document must show the evaluation or analysis conforming to these three items.

Response: Mitigation related to different resources, along with the basis for the mitigation, is discussed in various resource appendices in the Rawlins RMP/FEIS. Monitoring and evaluation are discussed in Appendix 17. The Rawlins RMP/FEIS has been updated to address your concerns and incorporate EPCA requirements.

Comment: Page 4-166; Methods Comment: The FEIS fails to acknowledge that oil and gas companies operating in the western portion of the Rawlins FO work among themselves, other stakeholders as well as BLM to ensure that roads are maintained to minimize impacts on other resources. This coordinated effort has had a positive effect on the transportation system within this portion of the RMPPA and should be acknowledged as a proactive measure in mitigating impacts.

Response: Some oil and gas companies do coordinate and work to minimize the impacts of transportation routes on other resources, as discussed in Section 4.14 of the FEIS, and this has had a positive effect on the transportation system. Unfortunately, this is not a positive statement that can be applied to all oil and gas companies; there is room for improvement.

Comment: (Page 3-83; Chain Lakes Area Comment: The Chain Lakes Area is listed as a potential Area of Critical Environmental Concern. Besides the information listed, it is necessary to disclose that the private/fee lands which are owned by the Wyoming Game and Fish Department are underlain by an oil and gas leases that exist with Anadarko Petroleum Corporation, successor to Union Pacific Land Resources. The State of Wyoming subsequently signed surface owner agreements allowing oil and gas development within the Chain Lakes Area. It should be noted that the operator and the Wyoming Game and Fish have executed surface use agreements for the wells that were drilled which stipulates operational constraints that recognize the wildlife values to this area. This information should be acknowledged by BLM and disclosed in the FEIS.

Response: The information you have provided concerning the fact that State of Wyoming lands in the Chain Lakes area have been leased to Anadarko under an agreement with the WGFD has been incorporated into the Rawlins RMP/FEIS.

Comment: Page 4-268, third paragraph/second sentence; “However, permanent oil and gas well sites...” Comment: “Permanent” should be replaced with “Productive” since well sites are not permanent. Second full paragraph, last line: regarding “incompatible user groups” and the various recreational user types. Are they “incompatible” or are we not encouraging courtesy and sharing of our natural resources by the various user groups. Given the wide number of areas set aside specifically for primitive recreation, sharing the remaining areas should be expected and encouraged. We all benefit from the efforts of the other permitted users of the multiple resources, i.e., beef and oil and gas.

Response: This statement will be changed in the FEIS document.

Comment: Local residents and other concerned citizens wanting to be involved in the actual development of oil and gas fields and/or drilling of wells are often stymied. One reason participation is stymied is that BLM does not make Notices of Staking (NOS) and APDs readily available to the public in a timely fashion. In some cases citizens are expected to physically review NOSs and APDs by visiting the BLM office, or if they do not live nearby, to make weekly telephone calls to the BLM office to request that these documents be faxed to them. That is unacceptable, and in this day and age there is no reason they should not simply be posted on BLM websites in a timely fashion. Any proprietary or privileged information can be redacted. The lack of availability of NOSs and APDs hampers public participation, which violates NEPA. The BLM should include provisions in the RMP that will correct these problems, but the EIS does not currently do this. This recommendation is consistent with and required by the public participation provisions in the CEQ NEPA regulations, 43 C.F.R. §3162.3-1, and Onshore Oil and Gas Order No. 1. The Mineral Leasing Act provision related to notifying persons of APDs is a minimum requirement and does not supersede or abrogate other requirements, such as those in the CEQ NEPA regulations. See 30 U.S.C. § 226(f) (providing “[t]he requirements of this subsection are in addition to any public notice required by other law.”) (emphasis added).

Response: Information is made available to the public as legally mandated by applicable law and regulations. The manner in which individuals do or do not make use of this information is outside the scope of current RMP revision.

Comment: Page 2-10 2.3.8. Off-Highway Vehicle Management. 2nd Paragraph. Until the designation process is complete, a large portion of the area will be limited to existing roads. Industry is alarmed that this includes vehicles used for geophysical or seismic activity will be limited to existing roads and vehicle routes This would eliminate most effective seismic activity. Recommendation: OHVs used in geophysical work should be exempted from the Limited to designated areas designation.

Response: BLM has revised Table 2-1 and resolved the conflicting statements regarding a final definition concerning what constitutes a necessary task. OHV designations do not restrict the consideration of necessary tasks in the application of authorized actions.

Comment: ES-8 Oil and Gas Disturbance. 57.9% of wells will be on private surface. 61.5% of the acreage is private. Recommendation: Note in this text that BLM cannot dictate the level of activity on private lands. The Preferred Alternative only places 3,711 wells on federal lands. Again, this should refer to pads or disturbed acres not wells.

Response: Decisions arising from the Rawlins RMP FEIS only apply to public lands and federal minerals as described in the Executive Summary. Also, in the same section, note in the discussion of the assumptions for analysis that the well numbers and surface disturbance are RFD figures used for analysis purposes.

Comment: Page 2-19 Last bullet. The APWG will recommend to BLM management practices like “off-site mitigation, compensated mitigation and a mitigation account.” Off-site mitigation can only be voluntary according to IM 2005-069 Appendix 18 does not discuss voluntary off-site mitigation. Recommendation: This section must be changed to reflect IM 2005-069

Response: APWG activities are subject to existing regulatory and policy mandates. The BLM exercises approval authority for offsite mitigation. Offsite mitigation will be on a voluntary basis. BLM has modified Section 2.7.2 to address your concerns in the Rawlins RMP/FEIS.

Comment: BLM should work with the EPA relative to regulation of hazardous and toxic wastes generated from oil and gas development activities. EPA's report on the oil and gas extraction industry cited above provides information regarding these substances and data on rates of inspection and enforcement actions for this industry. These data show oil and gas extraction facilities receive little in the way of inspection and enforcement relative to the other 29 industrial sectors, despite the significant levels of toxic and hazardous materials used and generated by the industry. The RMP should make provisions for ensuring that, in cooperation with the EPA, the rate of inspections (and as necessary, enforcement) is increased. Currently the EIS is silent on these issues.

Response: BLM stipulates that oil and gas operators must comply with all state and federal mandates with respect to their use of hazardous materials. When questions or problems arise involving hazardous materials handling, etc., BLM coordinates with the appropriate state or federal agency to bring the situation to resolution.

Comment: Private landowners who live on “split estates” are often severely affected by BLM's oil and gas leasing decisions. BLM has often ignored or given little attention to the legitimate concerns of surface owners and their communities. BLM must minimize conflicts between surface owners and companies developing subsurface minerals by proactively seeking and addressing their concerns in the design and

review of projects, including leasing itself. The RMP should provide for this. BLM should make full use of provisions in the Surface Mining Control and Reclamation Act that apply to all mineral development, not just coal. Areas used primarily for residential or related purposes can be deemed unsuitable for mineral development and withdrawn from leasing, or have development activities conditioned appropriately. 30 U.S.C. §1281. BLM also has general withdrawal authority pursuant to 43 U.S.C. § 1714. BLM should make use of these provisions, as well as its general authority to condition development, to protect private surface owners who could be adversely affected by oil and gas development. BLM must ensure compliance with Instruction Memorandum 2003-131, which addresses permitting on split estates, yet it fails to do so in the EIS.

Response: BLM disagrees with your comment. Private landowners deal directly with surface lease holders for access to conduct exploration and production operations. Private landowners and lease holders both have certain legal rights associated with the establishment of these access agreements that are imposed by law.

Comment: Water from CBM development should be reinjected in an environmentally safe manner (i.e., in a manner that ensures groundwater supplies are not contaminated). However, if water from CBM production is discharged, directly or indirectly, into streams, the impacts of augmented flows and increased concentrations of salts (ions) and dissolved solids on the ecological characteristics of the streams (perennial or intermittent) should be analyzed. The EIS fails to do this. Such analyses must account for the full range of variations in stream flow, effluent (produced water) concentrations, and sensitivities of different species at different life-stages. Impacts from altering stream thermal conditions and the timing of flows must be analyzed. Effects of discharged produced water on adjacent riparian areas, and the effects of increased turbidity and sedimentation should be considered. The analysis should consider lethal and sub-lethal effects on biota. If produced waters are or become a “discernible, confined and discrete conveyance...from which pollutants are or may be discharged”, they must be treated as point source discharges of pollutants and a National Pollution Discharge Elimination System (NPDES) permit must be required. 33 U.S.C. §§ 1362(14), 1342. See also *Northern Plains Resource Council v. Fidelity Exploration & Dev. Co.* 325 F.3d 1155 (9th Cir. 2003) (CBM produced water is a pollutant). Based on these analyses, the RMP should provide standards to prevent or mitigate these impacts, which the EIS currently fails to do.

Response: Onshore Order 7 specifies that “all produced water from federal/Indian leases must be disposed of by (1) injection into the substance; (2) into pits; or (3) other acceptable methods approved by the Authorized Officer, including surface discharge under NPDES [National Pollutant Discharge Elimination System] permit. Injection is generally the preferred method of disposal.” Planning at the project level typically evaluates injection as an alternative (Section 1.3). This is the appropriate level of analysis and injection, which in all cases may not meet the purpose and need for the project or be the most environmentally responsible option. The specifics at this planning level give BLM the opportunity to accurately evaluate impacts from all these decisions, and this level of analysis is more appropriate than the management planning level for making these types of decisions. The Rawlins RMP FEIS includes a range of alternatives that include restricting surface discharge in the Colorado River Basin and only allowing surface discharge that meets specific BLM management goals (Chapter 2, Table 2-1).

Comment: Addressing oil and gas socio-economic issues from an economic recoverability perspective is appropriate in at least two specific regards. First, as noted above, this should be the basis for any decisions resulting from studies done pursuant to EPCA. Second, economic recoverability should guide BLM's development of the Reasonably Foreseeable Development Scenario (RFD) applicable to oil and gas development in the RMP area. Basing the RFD, and resulting forecasts (like job growth and revenues) and decisions on technically recoverable resources unrealistically inflates the likely level of oil and gas development and has little utility in the real world. As mentioned above, development of the oil and gas

RFD on the basis of economically recoverable resources is also necessary for a proper analysis of connected, related, and cumulative actions and impacts, as required by NEPA. None of these needs seem to be met in the EIS; how the RFD was determined is a mystery.

Response: The requirements of EPCA have been taken into account with respect to the different levels of production which are associated with each alternative described in the Rawlins RMP FEIS. The RFD was based on several sources of information relevant to determining the expected rate of development in the planning area. The Rawlins RFD is available on the internet at the Rawlins RMP site.

Comment: Is there a way to require the use of magnesium chloride “dustbusters” on the busiest of these roads to reduce the particulate matter?

Response: Magnesium chloride is only one method of dust control. BLM allows the holder/operator to use the method they prefer. BLM does not have any requirement or regulation giving us the authority to force the companies to use any specific method of dust control.

Off-Highway Vehicle Management

Comment: BLM is currently conducting an evaluation to determine which areas of the RMPPA will be open, limited, and closed to OHV travel. OHV use within the majority of the RMPPA is currently limited to existing roads and vehicle routes, with some closures and seasonal closures (Map 2-5). This configuration will protect most surface resources and we support it. We would discourage designating areas as “open” to OHV use due to the resource damage and disturbances to wildlife this would likely cause. [Page 3-40, Section: 3.9]

Comment: When we speak of quality in a trail system, it leads us to what we think most enthusiasts are looking for in their experience. While the draft points out a variety of different things that appeal to motorized recreationist from wildlife viewing to visiting cultural sites, the most important destination for OHV users is the trail itself. Any route that fails to challenge the skills of riders from time to time will soon be abandoned for one that will. The second important criteria for a trail system is quantity. If there isn't sufficient miles of trail that a satisfactory experience will not be provided it will lead to off trail travel.

Response: As explained in Appendix 21, travel management planning—including OHV regulations, trails, closures, impacts to vegetation, soils and wildlife habitat, road density, redundant routes, and over-the-snow vehicle use—for the overall RMPPA will be accomplished with public input in the 5 years following the signing of the RMP. Until the travel management plan is in effect, travel is limited to existing roads and vehicle routes, unless otherwise designated. See OHV and SD/MA sections of Table 2-1, Detailed Comparison of Alternatives for OHV, and designations in specific special designations and management areas in the RMP/FEIS, respectively. Comprehensive trails and travel management guidance is found in the Land Use Planning Handbook, H-1601-1, Appendix C, page 17, and clarifications are found in Instruction Memorandum 2004-005.

Comment: We [Blake Sheep Company] maintain that there is not a need for this [proposed Rawlins] OHV area as a local motorcycle group and the City of Rawlins have built a facility two miles west of Rawlins on our property.

Response: See OHV Area Special Recreation Management Area (SRMA) in Table 2-1 in the RMP/FEIS.

Comment: Restricting OHVs to game retrieval will probably not reduce disturbance to vegetation or wildlife. The main problem is enforcement of OHV use on BLM administered lands. [Page 4-183, Section 4.15.5, Para 8]

Comment: 2-30 It is stated that OHV use will be allowed within 300 feet of an existing road to retrieve big game kills. This is an invitation to the creation an ever expanding network of roads. In year one, there is an existing road and a new road is blazed to pick up the pronghorn 299 feet from the existing road. In year two, the blazed road has been used repeatedly over the last year and has become an “existing road,” and thus in year three when a pronghorn is killed 275 feet from the new existing road, 275 feet of new road is blazed. And so on. What will BLM do to make this scenario not become true? How will this scenario be prevented? What would be the effects of this scenario? BLM recognizes that “the number of unauthorized roads pioneered within the RMPPA is expanding rapidly.” Page 3-43. At a minimum, BLM should evaluate options for retrieving big game animals. For example, what is wrong with requiring people to quarter an animal and carry it out? A quartered pronghorn or mule deer is not so heavy it cannot be carried out by most people. Or perhaps this provision should be limited only to people who have disabilities.

Response: The proposed 300-foot restriction is intended to reduce the impacts (surface disturbance, vegetative damage, and new route proliferation) of the current unlimited offroad distance allowed for downed game retrieval. This policy is in conformance with Wyoming BLM OHV Policy and Forest Service policy and will simplify regulations for the public travels between Forest Service (FS) and BLM lands.

Comment: As the affected permittee, we [Blake Sheep Company] were not contacted, informed or consulted in any way about the proposed Rawlins OHV area.

Comment: There was no public participation in choosing this [proposed Rawlins OHV area] specific site or to determine a need for one in the Rawlins area.

Response: As required by the BLM planning regulations, BLM provides opportunity for the public to provide input into the planning process. scoping; input of local, state, and other Federal Government cooperating agencies; 90-day comment period following release of the RMP/DEIS; 30-day protest period following release of the RMP/FEIS; and 60-day Governor's consistency review of the Proposed Plan. All these comment opportunities provide the public with an avenue to input thoughts, ideas, and issues into the BLM planning process. Plan implementation decisions also are open to review by interested and affected parties during site-specific project-level planning and analysis. See revised OHV Area SRMA under SD/MAs in Table 2-1 of FEIS.

Comment: ES-10 to It is stated that the Adobe Town WSA will be open to off-highway vehicles 11 (see (OHVs) on designated roads but all other WSAs will be closed to OHVs. also 2-35, What is the basis for this differential treatment; how can allowing OHVs in 4-107, 4- one area meet the non-impairment standard while banning them is necessary 108) in other areas? What specific differences in the Adobe Town WSA allow for this differential treatment? At a minimum, roads should only be deemed open in the Adobe Town area if they are posted open when the use is made; or until BLM publishes a map of roads designated open no roads should be open, so as to prevent any question about whether a road is “designated” open or not. We would also note that Map 2-44 shows the Adobe Town area as being open to OHVs on either designated roads or existing roads. This should be corrected.

Response: OHV use in the Adobe Town WSA has been limited to designated routes since the creation of the WSA. Many of these designated routes are no longer visible because of a lack of use. Map 2-44 in the DEIS is correct. See WSAs in the SD/MA section of Table 2-1 in FEIS.

Comment: P. 2-31 Recommendation: If road density is to be addressed, there should be definition in the Definitions, and a reference in the Appendix to explain for how it is analyzed.

Response: Road density is quantified using GIS. Evaluation of existing and proposed levels would be considered during the analysis process and authorization of surface disturbing and disruptive activities. See definition of road density in Glossary, Transportation, and Access Management in Table 2-1, and Criteria for Road Closures in Appendix 21.

Comment: It is difficult to tell from the maps provided, but denying OHV use for “necessary tasks” may greatly curtail hunter access and harvest from this end of the Ferris Mountains, particularly for deer and elk. It may also negatively affect collection of management data of these herds, which is often done by vehicle. [Page 2-33, Row 6]

Response: See the revised OHV Use section of Table 2-1 under Management Actions Common to All Alternatives in FEIS. Offroad travel for necessary tasks would be allowed in the west end of the Ferris Mountains. See also OHV Management Actions by Alternative, 2nd action, Alternative 4. Retrieval of big

game kills would be allowed within 300 feet of existing vehicle routes in this area, as in the rest of the RMPPA except WSAs and specific SD/MAs.

Paleontology

Comment: Although not as well known to the general public as the famous dinosaur graveyard at Como Bluff, paleontological resources abound throughout the Rawlins Field Office. Especially important concentrations of vertebrate fossils occur within the eastern Green River Basin in outcrops of the Lance, Fort Union, Wasatch, Green River, and Washakie Formations. While it might be tempting to make the erroneous assumption that cliff exposures are the most important fossil-bearing localities, in many cases the best sites are in relatively flat topography, surrounded by a sea of sagebrush (Lillegraven, pers. comm.). USGS geological maps for the Fort Union outcrops by Hettinger and Honey and others are now available, and we incorporate them into these comments by reference and request that BLM incorporate these maps into its analysis. We also incorporate by reference the recent annual reports from Dr. Jason A. Lillegraven for his BLM Paleontological Use Permit (no. PA98-WY-047 (extended)); BLM must therefore treat these reports as a comment and respond to all issues raised in the reports through the NEPA process.

Response: The reports submitted under Paleontological Use Permit PA98-WY-047 are reports, not comments. The best available information is used for formulation requirements for survey and mitigation.

Comment: The second paragraph indicates the need for site-specific analysis of Class 4 areas to determine whether they should be designated as class 5. However, there is no mention that Class 3 sites would require any level of analysis. Yet the table indicates that Class 3 would be subject to the requirement as identified above. This inconsistency must be rectified. In addition, the “comment” for Class 3, “...will require sufficient mitigation to determine whether significant Paleontological resources occur,” ...is extremely vague. What constitutes sufficient mitigation? How does it differ from the Class 4 “assessment” to determine whether significant Paleontological resources occur? BLM needs to clarify the terms and requirements discussed in this section.

Response: See Manual 8270 Paleontological Resource Management and H-8270-1 General Procedural Guidance for Paleontological Resource Management.

Comment: Pages 3-45 -46 Table 3-8. Paleontological Classification Descriptions “Ground disturbing activities will require sufficient mitigation to determine whether significant paleontological resources occur in the area of a proposed action. Mitigation beyond initial findings will range from no further mitigation necessary to full and continuous monitoring of significant localities during the action.”
Comment: Include the acreage figures for each classification on the table.

Response: The acreage figures for each classification, with Class 4 and 5 undifferentiated, is in the second paragraph of Section 3.10.2.

Comment: pp.4-75-4-83 **Comment:** BP is committed to protecting both cultural and paleontological sites, much of the same comments submitted in the cultural section and the visual section apply to this subject. Therefore, concerns about how the V4 mile setback or the visual horizon would be applied would apply to this section also.

Response: There is no provision for any setback for paleo resource area.

Comment: According to Dr. Lillegraven, the best options for identifying paleontological resources are through: (1) solicitation of expert advice from active researchers working in the specific areas; and (2) mandating project-wide, block surveys in the outcrop areas of the relevant formations (prior to the EA/EIS stage at the project level for ground-disturbing or damaging (e.g., vibroseis/shothole) projects). For paleontological resources in Paleontological Class 3 or 4 formations, on-the-ground surveys of all

road rights-of-way and well-pad sites should be conducted prior to the onset of surface disturbance; spot-checks are not sufficient. These surveys should be conducted by qualified paleontologists; archaeologists possess a distinct and separate skill set, and usually their training does not equip them to conduct effective paleontological surveys. These surveys should be guaranteed as a standard requirement in the Rawlins RMP.

Response: See Manual 8270 Paleontological Resource Management and H-8270-1 General Procedural Guidance for Paleontological Resource Management.

Comment: Page 3-45, 3.10.2 Fossil Yield Potential Classification Comment: The second paragraph indicates the need for site-specific analysis of Class 4 areas to determine whether they should be designated as class 5. However, there is no mention that Class 3 sites would require any level of analysis. Yet, table 3-8 indicates that Class 3 would be subject to the requirement as identified below. This inconsistency must be rectified.

Response: This classification system is intended to be used only as a guide. Additional information may indicate a different level of mitigation is warranted on a case-by-case basis. This case-by-case approach is applicable at all class levels.

Comment: According to Dr. Lillegraven (pers. comm.), the number-one threat to paleontological resources is accidental bulldozing associated with the construction of wellpads and their access roads as associated with oil-and-gas development. Current methods for the survey and protection of paleontological resources, as specified in the four alternatives of the Draft EIS, are grossly inadequate to prevent significant and irretrievable impacts to these educational and scientific treasures. The prescribed methods are haphazard at best, and they fail to identify important fossil resources prior to ground-disturbing activities. In addition, they rely heavily upon the ability and willingness of scientifically untrained, heavy-equipment operators to identify and report important discoveries of fossils, a strategy that will fail to prevent most fossil-bearing sites from damage or destruction.

Response: See Manual 8270 Paleontological Resource Management and H-8270-1 General Procedural Guidance for Paleontological Resource Management.

Comment: Both the Washakie and Wasatch formations are listed as “Class 5” under the Probable Fossil Yield Classification system. DEIS at A30-4. These are typified as highly productive of vertebrate fossils with easy access to outcrops. DEIS at 3-46. According to the BLM, “The land manager’s concern for paleontological resources should focus on Class 5 acres.” Table 3-8, id. And yet the spatial distribution of surface outcrops for these and other Class 5 strata are presented nowhere in the DEIS, despite the direction for intensive management of these lands (DEIS at 3-46).

Response: BLM generally uses the information from the geologic map of Wyoming by Love and Christiansen as a base map, supplemented by any other available geologic mapping of the area. Add the map layer from the master GIS directory in the State Office, called the PFYC. The layer called Class uses the statewide geologic map with the paleo classes overlain.

Recreation and Visitor Services

Comment: As a recreational user, it seems I am not afforded the same consideration as are extractive users of these public lands. When I attempt to use these lands, there is a significant impact on my appreciation of a sunset when there is a drilling rig on the horizon or while photographing some animal or scenic view there is a road in the background. Even, while sitting and attempting to listen to the silence, my appreciation is impacted by the sound of drilling rigs or heavy equipment. How can you say there is “NO SIGNIFICANT IMPACT?”

Comment: Hunting and Fishing Heritage Shouldn't Be Sacrificed!

Response: The BLM manages public lands for balanced multiple use. The term “multiple use” as defined in FLPMA means “the management of the 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.” This direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP DEIS and FEIS reflect this provision. Not all areas would be open to all types of uses in the RMPPA. Additionally, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (Summary of Changes between RMP/DEIS and FEIS at the beginning of each Chapter in the FEIS). The RMP/DEIS and FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure that resource values are protected, while allowing for acceptable levels of resource use and mineral development.

Comment: Please consider the following general comments when developing your plan near the CDNST: To avoid building trail that may not fit National Scenic Trail standards, and to improve the overall planning of the CDNT, we suggest all agencies: --Review the existing or proposed CDNST route in the adjacent jurisdictions to assure it meets National Scenic Trail standards prior to connecting with them. --Establish CDNST “control points” where the Trail must pass through and analyze route opportunities between these points that fit National Scenic Trail standards

Comment: The DEIS fails to consider the way in which, under any of the alternatives, the high quality recreation experience and overall enjoyment of the Trail [Continental Divide National Scenic Trail] will be assured. On the contrary, it is asserted that a goal of the CDNST is to “encourage multiple-use of lands” (4.13.19). Even if this were true – and it is a wild overstatement – it would not justify the DEIS lack of concern with those measures that might and should be taken to preserve the maximum outdoor recreation potential of the CDNST while still allowing some degree of development.

Response: The Continental Divide National Scenic Trail Comprehensive Plan, the major document that provides guidance in the designation and management of the Continental Divide National Scenic Trail (CDNST), allows for motorized use (Sections 5 [5] of the Act [as amended] 16 U.S.C. 1246 [c] and [i]). Forty-five percent of the trail was open to motorized use at the time the Comprehensive Plan was written. One of the goals for the trail is to harmonize with the management objectives of land and resource uses that are now or may be occurring on the lands through which the trail passes (CDNST Comprehensive Plan, page 30). In the RMPPA, resource uses along the trail have historically included livestock grazing, mineral extraction, and recreation. The limited availability of water and the difficulty in acquiring rights-

of-way have been major constraints in route designation of the CDNST through the RMPPA. Consequently, redesignation may be necessary for portions of the route. These redesignations may provide a route that will be more primitive and less likely to have motorized traffic. Location of connecting trail segments on BLM land is planned for completion by the year 2020 (CDNST Comprehensive Plan, page 29). Access to nationally significant scenic, historic, cultural, and natural features in proximity to the Divide is limited in the portion of the trail passing through the RMPPA. The impacts of proposed management actions on trail water sources in the RMPPA are beyond the scope of this document. See revised Section 4.11.6. in FEIS.

Comment: Suggest adopting the more protective strategies of alternative 3 as a means of preserving the value of public outdoor experiences and protection of wildlife habitat and wildlife viewing opportunities near recreational sites. [Page 2-32, Section Mgmt. Actions, Par. 2-3]

Comment: I may be only 10, but my dad says I should write and tell to quit fouling up all the cool hunting area. By the time I'm old enough to hunt by myself, the oil companies will have roads everywhere and cut everything to dead.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: The total proposed wilderness acreage is about 157,000 acres out of the 3.5 million acres in the planning area. Surely these areas can be dedicated to heritage conservation, to balance the oil drilling on so much of the area.

Response: There is no requirement for any particular proportion of an office area to be managed for wilderness character or be provided other special protections. Many offices have no WSAs. BLM no longer has the authority to establish new WSAs or expand existing WSAs. Management priorities for much of the RMPPA call for multiple use, including mineral development, in preference to preservation of existing landscapes.

Comment: All lands within WSAs, BLM inventoried lands of wilderness character, proposed wilderness, and ACECs should be managed as ROS class primitive, while other spectacular and important lands in the RMP area, such as important wildlife habitat, should be managed as ROS semi-primitive non-motorized, although the EIS does not seem to even address different categories of ROS that might be applied to different lands and what the effects of such designations would be.

Response: The RMPPA is managed under two different levels of recreation management areas: Extensive Recreation Management Areas (ERMA) and SRMA. SRMAs have distinct, primary recreation-tourism markets as well as corresponding and distinguishing recreation management strategies complementing the natural resource recreation settings to be used to prescribe the desired Residential Open Space (ROS). ERMAs are public land units containing all acreage not identified as a SRMA. Recreation management actions within an ERMA are limited to only those of a custodial nature and are managed as middle country settings. See the SRMA section in Table 2.1. Other special designations and management areas located within an ERMA, such as WSAs and WSRs, will be managed to preserve the primitiveness characters of the landscape. See the WSA section in Table 2-1.

Comment: I disagree with abolishing the Shirley Mountain Caves SRMA. The tiny ACEC provided under Alt. 3 and even tinier one under PA do not adequately protect this resource. I would suggest that the current protections be retained.

Response: See updated SD/MA section of Table 2-1 and Section 3.11.2. in FEIS. Note that the Shirley Mountains SRMA is expanded in the Proposed Plan and Cave Creek Cave is included as an ACEC.

Comment: In section 3.11 the BLM does a shallow analysis of recreation. It is an inaccurate measurement to rely on registration, permits, observation and professional judgment. I ask that the BLM consider the numerous comments of people who recreate in the field office and analyze the percentage of comments claiming to recreate in the area compared to the numbers presented in the draft plan.

Response: A variety of methods are used to collect visitation data, such as WGFD hunting reports, licenses, permits, registration, and observation as well as interviews from BLM personnel who interact with recreations in both the undeveloped and developed areas, and other developing technologies used to track visits. The data collected are the BLM's best available data, and progress is moving forward to collect more efficient and accurate data.

Comment: Page G-7, Glossary. EXTENSIVE RESOURCE MANAGEMENT AREA. That portion of the RMPPA not included in one of the Special Recreation Management Areas. This definition makes no sense. Recommendation: Strike this definition or place further explanations to support its necessity.

Response: The Glossary term ERMA has been updated in the RMP/FEIS. The definition has not changed. See the definition of ERMA in the Glossary of the RMP/FEIS.

Comment: ES-10 (see also 2-32) It is stated that both developed and undeveloped recreation sites would only be open to oil and gas leasing if an NSO applied within 1/4 mile of the area. It appears these sites are listed on page 3-47 and in Map 3-7 (the map does not show all the sites listed on page 3-47), although that is not clear. In our view there are many undeveloped recreation sites; particularly during hunting season there are specific sites that have been used for years if not generations that we certainly view as being undeveloped recreation sites. They are used repeatedly for recreational purposes. Support for this view is shown on pages 3-47 to 51, which make it clear dispersed recreation is the primary type of recreation in the RFO. What standards has BLM used to classify an area an undeveloped recreation site? Please describe how those standards were applied to identify undeveloped recreation sites in the RFO. Where can those determinations be reviewed?

Response: Undeveloped recreation sites are defined in the FEIS as sites not planned, designed, engineered, constructed, or maintained by BLM, but which are recognized by BLM as receiving significant visitation. In the RMPPA, these sites are associated with fishing, river access points, or stops along nationally designated trails. See Map 3-7 in FEIS for their locations.

Comment: Overall, the BLM's four alternatives will result in a degradation of recreation resources throughout the planning area. The BLM should consider and adopt an alternative that results in a net maintenance or enhancement of recreation opportunities across the planning area. According to BLM's Recreation Visitor Days (RVDs) estimates, hiking/walking/running and backpacking activities have decreased markedly between FY 2001 and FY 2003. It has been our own experience that the volume of hikers and backpackers in the Red Desert part of the planning area has shown a significant increase over the same time period. How were the RVDs calculated, and is the decrease in nonmotorized recreation an actual decrease or reflective of changes in estimation protocols?

Response: Visitor use estimates are for the entire field office, not any one specific area. Visitation trends noted at sites where visitation is easily measured are applied to areas where visitation cannot be easily estimated (such as dispersed use areas). Decreases in visitation to some areas may have been the result of drought (and consequently water levels or available water sources), gas prices, or other influences on local tourism. These decreases more than offset the increases in visitation to the Red Desert during the

specified years. Estimation protocols and technologies continue to evolve. BLM manages public lands for balanced multiple use. The term “multiple-use” as defined in FLPMA means “the management of the 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.” This direction indicates that not all uses need to be accommodated in all areas.

Socioeconomics

Comment: Please explain why changes in recreational activities are not expected. If oil and gas activities increase, areas may become off-limits or unattractive to recreationists. This would certainly result in changes in demand as well as changes in tax revenues associated with recreation activities.

Comment: It is interesting that while the BLM goes to great lengths to elucidate the value of oil and gas and agriculture in the RMPPA, recreation gets only cursory treatment and the economic value of wildlife gets no treatment at all. See DEIS at 3-68. It is important to note that WGFD data indicate that hunting, fishing, and wildlife watching contributed in the RMPPA contributed \$115 million to the Wyoming economy in 2003. (WGFD 2004). This figure should have been presented in the DEIS, and we expect this egregious omission of readily available data to be corrected in the FEIS. This figure does not include the contribution of camping, which according to BLM statistics contributes the greatest number of Recreation Visitor Days (31,862 in 2004) of any activity besides hunting. DEIS at 3-50. Thus, recreation can be seen as making a comparable contribution to the economy to that of Total Agricultural Sales in the RMPPA (at \$153 million). DEIS at 3-68.

Response: The purpose of this analysis is to evaluate the economic impacts associated with the management alternatives being considered. To the extent tourism, recreation, grazing, and wildlife are impacted by the management prescriptions being analyzed, they were considered. However, impacts to these activities were considered insignificant, given the Significance Criteria. The extent of the analysis for these resources reflects that fact. That is not to say these resources are insignificant, but rather to say they are not significantly impacted by the alternatives being considered.

Comment: Considerations of the contribution of the oil and gas industry to employment, income, and other economic measures must include a national, State, and regional perspective of the relative value of these activities. As mentioned, FLPMA requires BLM to manage the public lands to achieve what is “best” for the “American people,” not just local economies. Moreover, these analyses must consider not only the present contribution of various sectors of the economy, but also trends that are apparent. The EIS should realistically address the socio-economic impacts of the boom and bust development cycle associated with oil and gas drilling and development. The EIS fails to fully meet these needs.

Response: A narrative was added to the end of Section 3.12.2.2 that provides a reference to the Aggregated Economic Profile found in Appendix 35, where more detail on the top sectors in the study region can be found. It also mentions that an increase in concentration of economic activity in the oil and gas sector will likely reduce the economic diversity in the study area, making it more susceptible to the boom-and-bust scenario as it relates to energy development in the study region and to the west in general. Also, a new narrative was added to the Cumulative Impacts section that has a general discussion regarding the pace of development and the likely impacts to local communities.

Comment: The socio-economic portion of the DEIS is flawed in that it fails to consider all types of economic impacts –direct, indirect and induced. Additionally, the DEIS describes the expected change in employment from changes in drilling activity but fails to mention the changes in output or value added. The significance criteria used by BLM is flawed because it relies on trend analysis and a meaningless threshold. There is no literature presented, logic, or evidence presented as to why employment or mineral ad valorem taxes should not fluctuate away from the trend line in the future anymore than they did in the past 20 years. Suggest the BLM do away with the significance criteria because, as constructed now, it provides not information.

Response: Impact Analysis for Planning (IMPLAN) is used in this analysis to estimate the total earnings and employment (direct, indirect, and induced) associated with each alternative. A table has been added to

Chapter 4 that shows the estimated earnings and employment by alternative. Also, the significance criteria presented in Chapter 4 are used to provide an indicator of substantive changes in either total employment or tax revenues. Therefore, if there is a major change in either employment or tax revenues as a result of increased activity in, for example, the oil and gas sector, these indicators would reflect that increase in economic activity.

Comment: The significance criteria used by BLM is flawed because it relies on trend analysis and a meaningless threshold. There is no literature presented, logic, or evidence presented as to why employment or mineral ad valorem taxes should not fluctuate away from the trend line in the future anymore than they did in the past 20 years. Suggest the BLM do away with the significance criteria because, as constructed now, it provides no information.

Response: The significance criteria represents a threshold level, based on historical trends under normal conditions, that provides a benchmark for determining what constitutes a significant deviation from that trend.

Comment: The DEIS acknowledges the importance of non-labor income, which includes investment income, dividends and rent, and retirement income, to the regional economy. In fact, if retirees and investment income were classified as an industry, it would be the number one industry in the study area. The forces attracting retirees to Wyoming and other western states are largely based on sustaining our environment and quality of life. It is therefore important to fully evaluate the negative impacts of a rapid expansion of oil and gas production on a region's natural amenities and, hence, the potential negative impacts on retiree and investment income.

Comment: The bottom line is that the BLM needs to carefully assess the net impacts of oil and gas development, taking into full consideration the potential negative impacts of oil and gas extraction on other, perhaps more important, sectors of the western economy.

Response: A study of the nonmarket values would need to be conducted to fully address the tradeoffs associated with energy development. This could be accomplished by using a Contingent Valuation Methodology (CVM) to estimate nonmarket values. However, in view of the fact that there were no major impacts identified to the other resources, such as recreation or wildlife, this approach was considered beyond the scope of the analysis.

Comment: Impacts on Tax Revenues Please include analysis of the impacts of the Alternative on all sources of tax revenue.

Response: Table 3-28 shows the distribution of lodging taxes, and Table 3-29 shows the distribution of sales and use taxes by county in the study region for 1999–2001. The impacts on tax revenues can be found in Table 4-4 in Chapter 4.

Comment: 3.12.4.2 Please provide data and tables showing the revenue generated from recreation expenditures and the spillover impacts from recreation employment and the income. Please show the income and jobs from all industries. Data on jobs and income from various sources indicate that the extractive industries are not nearly as important to the economy of the Rocky Mountain Region as the recreation industry, which relies on protected land and most likely will be harmed by oil and gas activities.

Response: There will be detailed Economic and Community Profiles for the counties and communities in the study area added to Appendix 35.

Comment: Impacts on Regional Income Please provide a detailed explanation of the methodology used to estimate income by industry (shown in Figure 4-27). Please note that in 2002, mining provides less than 1% of the total personal income in the 4-county area, and at most, just over 3% (in Carbon County). Laramie County is the only one of the four counties with a large enough population to have unsuppressed data on income from oil and gas, and in this county it is less than half of one percent of total income (0.34%).

Response: For an explanation regarding how IMPLAN was used to estimate impacts, refer to the discussion on IMPLAN methodology found in the Section entitled Economic Impact Analysis Methodology in Appendix 35, Socioeconomic Impact Analysis and Significance Criteria.

Comment: Impacts on Regional Employment Please explain in detail how the employment numbers asserted for Alternative 4 were derived. Provide all supporting data and other documentation. Note that in 2002 there were only 457 jobs in mining in the four counties. Also note that employment in mining has been declining for the past 3 decades and now accounts for less than 1% of the total (even in the more resource-dependent western RMPPA counties, mining provides less than 3% of total employment).

Response: A narrative has been added to Section 3.12.3.2 that addresses mining employment 1970–2000. The new narrative indicates total employment in mining has not been declining steadily over the past 3 decades. In fact, page 28 of the Economic Profile System (EPS) for Albany, Carbon, Laramie, and Sweetwater Counties indicates mining employment grew by 1,650 employees, or by nearly 63%, from 1970 to 2000. However, mining employment, as a percentage of total employment, did decline from 4.8% in 1970 to 3.9% in 2000. In terms of the trend in mining employment for the study region, it grew from 1970 to 1980 and then declined from 1981 to 2000.

Comment: The industry is already plagued by cyclical employment caused by seasonal restrictions like the ones you are discussing in the plan. Please think twice before you adopt this plan.

Response: There is an argument that takes the position that seasonal restrictions limit the ability for companies to hire and retain permanent employees on a year-round basis. The argument goes on to point out if seasonal restrictions were lifted, year-round operations would promote: (1) more stability in the workforce, (2) less accidents on the job, (3) less drug use, (4) less crime associated with drug use, (5) more workers moving to the study area, (6) increased connectedness of the workers moving to the study area, and (7) increased labor productivity, etc. However, the other side of this issue is that the pace of development would be increased, thus shortening and heightening the boom, which would likely increase the detrimental affects of the “bust.”

Comment: Allowing some development will introduce extra money into the economy without compromising the Rawlins Resource Area's ability to maintain itself Environmental degradation would be limited in space, the public's resources would be preserved for a day when more efficient use of oil and gas would be in place and the natural beauty of the Great divide would not be compromised.

Comment: Our economy depends on developing Wyoming's precious natural resources and I know first hand that natural gas development and other uses on our public lands are not mutually exclusive.

Response: This is a personal observation lacking any specific data or research to back it up. While it may be true, it is too general for a specific response.

Comment: The text says “...Table 4-4 shows the present value of total mineral revenues...” meaning that the receipts for each of the twenty years are discounted at 7% to give an amount in current dollars. The legend for the table says “This table summarizes the net present value...” meaning that for each of the 20

years the incremental costs for all governments are deducted from the incremental revenues. Those net amounts are discounted at 7% to current value. Recommendation: Separately show the incremental annual cost for each of the tax levying jurisdictions for 'the next twenty years and separately show the incremental annual tax receipts. That will enable verification and impact planning for each independent jurisdiction. The tax revenues should pertain to the Region of Impact (ROD. It is not good practice to compare different geographic regions. The title of the table says, "Total Estimated Mineral Tax Royalties and Taxes from RMPAA (2001)." Property taxes levied by local school districts and severance taxes are passed to state government and distributed statewide according to distribution formulas that are sure to change in the 20 years' planning horizon. Recommendation: Show the distribution of each tax to the jurisdictions in the Region of Impact using (a) current mileage rates and (b) current state distribution formulas.

Response: The footnote at the bottom of Table 4-4 has been changed to read: "This table summarizes the present value of the estimated annual flow of Ad Valorem, Severance and mineral royalties by alternative. The real discount rate used for these calculations is 7 percent, as recommended by OMB." With regard to distributing the taxes and royalties to the jurisdictions in the region, the study area is a four-county region consisting of Albany, Carbon, Laramie, and Sweetwater Counties, and the impacts are estimated to that level. However, there will be detailed Economic and Community Profiles for the counties and communities in the study area added to Appendix 35.

Comment: Note that as shown in Table 3-19, revenue from property taxes are nearly twice the ad valorem tax revenues. Please provide a table showing each county's total tax revenue broken down by source which includes revenue from taxes on all industries (not just oil and gas), sales taxes, lodging taxes, and all property taxes.

Response: Table 3-28 shows the distribution of lodging taxes, and Table 3-29 shows the distribution of sales and use taxes by county in the study region for 1999–2001. There will also be detailed Economic and Community Profiles for the counties and communities in the study area added to Appendix 35. Finally, the study area is a four-county region consisting of Albany, Carbon, Laramie, and Sweetwater counties, and the impacts are estimated to that level. The impacts on tax revenues can be found in Table 4-4 in Chapter 4.

Comment: The National Environmental Policy Act and the implementing regulations by the Council of Environmental Quality state that the environmental consequences that need to be studied include social and economic impacts. The DEIS is deficient in presenting these impacts. There are a few paragraphs that describe generalized social and economic effects. However, the social and economic impacts of the various alternatives on and by oil and gas, timber, livestock, off highway vehicles, hunting and fishing, tourism, or other resource uses are not specified. Worse, the narrative fails to describe the specific social and economic impacts upon the communities by each of the alternatives. The demands upon social services, schools, roads, and other services are not mentioned. The impacts of revenues and expenditures of each resource and resource use from each of the alternatives upon the towns in the planning area were not touched upon. The specific impacts, both positive and negative, that are expected as a result of the four alternatives, upon the people of this area were not identified. Thus, the public can not correctly evaluate the impact of each alternative upon the people most affected by this land-use plan

Comment: Impacts on Community Services Please provide data on the costs of providing additional services to communities expected to experience a population increase due to activities in the RMPPA. Please compare these costs to the revenues which are expected due to the Alternatives.

Response: The study area is a four-county region consisting of Albany, Carbon, Laramie, and Sweetwater Counties, and the impacts are estimated to that level. However, there will be detailed

Economic and Community Profiles for the counties and communities in the study area added to Appendix 35. In addition, a narrative was added that provides more detail on the top sectors in the study region. It also adds a discussion on the boom-and-bust scenario, as it relates to energy development in the study region and the west in general. This same discussion also touches on the relationship between economic diversity and the potential for a bust following a boom driven by energy development. Finally, a new narrative was added to the Cumulative Impacts section that has a general discussion regarding the pace of development and the likely impacts to local communities.

Comment: Tourism has much greater long-range economic potential in our state than drilling for energy or livestock grazing. Please do your job and help protect the public lands owned by me and my compatriots. Keep our public lands from being ruined for the profit of a few. Preserve them for the sake of the many.

Response: The BLM manages public lands for balanced multiple use. The term “multiple use” as defined in FLPMA means “the management of the 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.” This direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP FEIS reflect this provision. Not all areas would be open to all types of uses in the RMPPA. Additionally, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (see Summary of Changes between RMP DEIS and FEIS at the beginning of each chapter in the RMP FEIS). The RMP FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands (see Section 1.4, Relevant Statutes, Limitations, and Guidelines, in the RMP FEIS) and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure that resource values are protected, while allowing for acceptable levels of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents.

Comment: [Page 3-57, Economic Base.] This section fails to capture the importance of agriculture to the planning area. As this section notes in its first sentence, “An area's economic base is comprised of industries that are primarily responsible for bringing outside income into the local economy. Agriculture is perhaps the leading example in the planning area of bringing outside money into the local economy and then turning that money over inside that economy. Virtually every product sold by ranchers and farmers is sold outside the state of Wyoming and outside the local economy. Yet, nearly every dollar expended by these agriculture producers is spent within the state and most within the local economy. Just as importantly, their revenues don't fuel a boom or bust economy, but provide a needed foundation of stability for local economies.

Response: The Economic Base discussion found in Section 3.12.3 does provide the reader with information that reveals the relative importance of the various sectors depicted in Table 3-16. However, the nonmarket values associated with grazing are not included in the analysis. Moreover, it should be noted that grazing earnings by alternative are not expected to change. Grazing constitutes about 4 percent of the total earnings of oil and gas, recreation, and grazing.

Comment: [Page 3-57, Economic Base.] Another factor not considered is the revenues generated in the area by ranchers and farmers compared to their negligible demand upon governmental services. Studies in

Wyoming and Montana show that agriculture producers place little demand upon a town's or county's services. For every dollar generated for the community, the demand for community services is far under a dollar. These same studies show that developments often result in higher demand for services than the revenue contributed. Thus, the demands upon schools, police, fire, road maintenance, and other social services are greater than the revenue generated by developments. For every dollar in revenue, demands upon the town and county far exceed that dollar in costs. These social and economic impacts are not evaluated in the EIS, and they need to be.

Response: Section 3.12.3, Employment and Earnings by Industry, has been updated by adding a new paragraph that provides a discussion in support of the comment. The new narrative states that the revenues produced by area ranchers exceed the cost of their demand for local services.

Comment: BLM needs to assess the impacts of overlapping timing limitation stipulations on the oil and gas industry, increased impacts to resources and socio-economic impacts.

Response: It is unclear what is meant by “overlapping timing limitation stipulations on the oil and gas industry, increased impacts to resources and socio-economic impacts.” Therefore, there is insufficient specificity to allow for a meaningful response.

Comment: I would request that the Bureau of Land Management add more detail to the socioeconomic portion of the document. The additional material should include figures and multiples to demonstrate the high degree to which energy dollars subsidize everything else in the state budget.

Response: The analysis in Chapter 4 illustrates the total estimated mineral tax royalties and taxes associated with oil and gas development.

Comment: [Please consider prior to publication of the FEIS that]...The Economic Impact Analysis Methodology underestimates the economic assumptions for oil and gas productions. Natural gas is estimated to maintain a \$5/Mcf or better price for the foreseeable future. In fact, Henry Hub settlement prices for natural gas for April delivery were \$7.19 per MMcf on March 16, 2005. Oil is more than likely to maintain a price in excess of \$25/BO (crude Oil prices settled at \$56.46BO today for April, 2005 delivery).

Response: Please see Table A35-2 and the narrative in Appendix 35 that describes the assumptions used in the analysis. It should be noted that while the prices have increased for both oil and gas, these changes are not likely going to affect the decisions being made in the NEPA document.

Comment: That socio-economic impact is direct and indirect to the area and communities affected. The oil and gas industry offers high paying jobs from skilled workers. Those workers utilized restaurants, hotel/motels, convenience stores, banks, department stores, and other facilities in those communities surrounding the gas exploration and development projects for hundreds of miles. Royalties, ad valorem, sales and property taxes are collected in extraordinary amounts.

Response: The oil and gas exploration, development, and production increase the economic activity in the study area and produce tax revenue streams that are important to the state of Wyoming and the impacted counties and communities. However, the challenge for managing public lands is to balance this increased economic activity and tax revenue stream with the wildlife concerns, tourism concerns, housing needs, social and cultural concerns, infrastructure requirements, and environmental concerns. While this comment may be true, it is based on one point of view and is too general for a specific response.

Comment: Since the DEIS focuses on long time frames, the outlook for future drilling economics should be examined. (see supporting info regarding cost)

Response: The forecast economic impacts associated with oil and gas development and production are based on (1) historical production, (2) historical and forecasted prices, (3) development cost estimates, and (4) RFD scenario.

Comment: 3.12.2.2 Please show a breakdown of transfer payments which distinguishes between retirement and veterans benefits and income support. Are per capita income support and unemployment payments increasing, decreasing or remaining constant (in current, inflation adjusted dollars)? What percentage of total transfer payments are for income support? How will the implementation of the preferred alternative affect this large portion of the area's total personal income? See also Attachment 9.

Response: The narrative in Section 3.12.2 was changed to provide additional information regarding transfer payments to the area. Additionally, an economic profile was added as an appendix to this document. The specific table referred to in the added narrative is found on page 11 of the Aggregated Economic Profile, which provides a detailed breakdown of transfer payments.

Comment: 3.12.3.4 (and Table 3-17) Note that the value of residential property is more than twice that of commercial or industrial property. The value of residential property is quite often dependent on the presence of amenities such as those provided by protected public lands, and on recreation opportunities. Please discuss how changes in federal land management in the RMPPA will affect these property values, especially residential property, and the impact of such changes on local revenues.

Response: The narrative in Section 3.12.3 has been expanded and updated, so it not only reflects the importance of minerals to the study area but also points out that if minerals development degrades the environment, residential property values will likely suffer.

Comment: 3.12.3.5 Please do analysis that shows the value of all industries to the counties and cities in the RMPPA. Please present breakdowns of employment and income, and tax revenue from all industries in these counties, not just oil and gas.

Response: A revised narrative was added to Section 3.12.2 that provides a reference for the new socioeconomic profiles that were added in Appendix 35. This new narrative also expands on the original discussion by talking about transfer payments and the sectoral distribution of personal income.

Comment: The DEIS places a great emphasis on revenue to the local area from taxes, however it does not include a comprehensive analysis of potential tax revenues. Please expand the socio economic criteria to include the potential net impact of the RMP on tax revenues from all sources.

Response: Table 4-4 illustrates the estimated royalties and tax revenues by alternative and does not address the net fiscal impact, because that was considered beyond the scope of the analysis.

Comment: Page 4-94 (Table 4-3) Please expand the data on recreation activities considered in the impact analysis. While hunting and fishing and off-road vehicle use are important, so are activities such as skiing (downhill and cross-country), hiking, mountain biking, camping, picnicking, and wildlife viewing for example.

Response: Please see the Recreation Section in Appendix 35, which describes the activities included in the analysis. This section also points out that both consumptive and nonconsumptive activities were considered for activities where visitor use data were available.

Comment: 4.12.1 Impacts Under Alternative 1: Continuation of Existing Management Please include quantification of the value of the loss of open space and solitude. These are important benefits of public lands (indeed the very real prospect of the loss of these values prompted many of the environmental regulations in place today). The ability to measure these values has been the subject of decades of scholarly research and practical applications.

Response: Estimating the value of open space would require estimating nonmarket values, which is beyond the scope of this effort.

Comment: Please provide numerical and graphical documentation to support the following assertion (p. 4-97): “These counties have experienced a steady decline in employment throughout much of the past decade because of declines in coal and trona production, as well as reductions in oil and gas development.” Albany and Laramie counties have in fact both experienced a steady increase in employment (BEA). Carbon and Sweetwater county's employment numbers are more variable, but do not exhibit a “steady decline.” In fact, the employment picture in two western counties may reflect the painful boom and bust nature of an economy overly reliant on extractive industries.

Response: The subsection entitled Impacts on Regional Employment in Section 4.12.1 has been changed to reflect the fact that full-time and part-time employment has increased between 1990 and 2000 for the four-county study region. In fact, the only county to show a decline over this period is Carbon. But the decline in Carbon County is offset by the employment increases in Albany, Laramie, and Sweetwater Counties. However, it should be noted, the bulk of the employment growth occurred in Albany (20.12 percent) and Laramie (21.3 percent) county. By contrast, Carbon County (-2.02 percent) and Sweetwater County (6.08 percent) employment declined slightly and increased somewhat over this same time period. Therefore, as stated in the revised narrative, the increased oil and gas activity in the western portion of the study area (Carbon and Sweetwater Counties) will produce a boost in employment as a result of the anticipated oil and gas activity being analyzed in Chapter 4.

Comment: Also please note that the percentage of total employment in the mining industry in all of these counties has been declining steadily throughout the past three decades. This decrease in the relative importance of mining to the economies of the area needs to be addressed in the discussion of the impacts of land management plans. Note that when mining and accommodations and food service are considered together they equal nearly 3% of current total employment, and that accommodations and food service are the largest portion of this percentage.

Response: The narrative in Section 3.12.2 has been changed to address mining employment from 1970 to 2000. The new narrative indicates that total employment in mining has not been declining steadily over the past 3 decades. In fact, page 28 of the EPS for Albany, Carbon, Laramie, and Sweetwater Counties indicates mining employment grew by 1,650 employees or by nearly 63 percent from 1970 to 2000. However, mining employment, as a percentage of total employment, did decline from 4.8 percent in 1970 to 3.9 percent in 2000.

Comment: Impacts on Population Please provide documentation to support the following assertion (p. 4-98): “Activities within the RMPPA would continue to support as much as 3 percent of total employment in the entire four-county area.” Please provide documentation for your assertion that oil and gas development will increase population, especially given that the downward trend in Sweetwater and Carbon counties has occurred even during past and current periods of high oil and gas development. (Note that when mining and accommodations and food service are considered together they equal nearly 3% of current total employment, and that accommodations and food service are the largest portion of this percentage.)

Response: The employment impact illustrated in Figure 4-26 is approximately 3,000 for the average annual employment by alternative. The total 2003 employment for the four-county region was 111,984, according to the Real Estate Information Standards (REIS) database. Therefore, the estimated oil and gas associated employment translates into about 2.7 percent of the total employment, which corresponds to the narrative found in Chapter 4.

Comment: Please explain explicitly why increasing enrollment is “benefiting these school districts.” (p. 4-98). It is apparent to us that increasing enrollment implies increasing costs to the education system, which is a cost, not a benefit.

Response: The school enrollment in Rock Springs has been declining, and some schools have shut down. Therefore, increased enrollment may allow schools to stay open.

Comment: Impacts on Custom, Culture and Social Trends Please provide specific numeric documentation for the following assertion (p. 4-99): “...residents generally support the development of minerals and energy...” Were surveys conducted? If so, please provide summaries of the findings as well as copies of all questions asked. If not, please explain in detail the origin of the assertion and any supporting evidence for it.

Response: The narrative in Chapter 4 of the FEIS will be changed to address this comment.

Comment: It is apparent that many of the good-paying jobs in the oil and gas industry are filled by individuals who temporarily relocate to the RRMPA, then return to other states, taking their savings with them. Please provide a specific estimate for the percentage of employment to be filled from outside the RRMPA.

Response: A narrative in Chapter 4 will be added that discusses the issues associated with temporary oil and gas workers.

Comment: Impacts on Custom, Culture, and Social Trends Please provide documentation to support the assertions regarding the acceptability of the activities in Alternative 2. If surveys were conducted, please provide summaries of the findings as well as copies of all questions asked. If not please explain in detail the origin of the assertion and any supporting evidence for expected community reactions.

Response: The narrative in Chapter 4 of the FEIS will be changed to address this comment.

Comment: Add a new summary here, select a category, and if appropriate check the 'Substantive' box. Impacts on Regional Employment Please explain in detail how the employment numbers asserted for Alternative 3 were derived. Provide all supporting data and other documentation. Note that in 2002 there were only 457 jobs in mining in the four counties. Also note that employment in mining has been declining for the past 3 decades and now accounts for less than 1% of the total (even in the more resource-dependent western RMPPA counties, mining provides less than 3% of total employment). Please explain in detail the methods and data used to arrive at the conclusion that a difference of 123 wells (compared with Alternative 1) will result in such large job losses when oil and gas development is such a small percentage of total employment.

Response: The narrative in Chapter 4 of the FEIS will be changed to address the question regarding the magnitude of the job losses associated with changes in the number of wells. Also, please see the individual county and community profiles in Appendix 35 in the FEIS, indicating that the 2000 employment for mining was 4,286 and accounted for 3.9 percent of the total employment.

Comment: Impacts on Custom, Culture, and Social Trends Please provide data and documentation to support your assertion that implementation of this alternative will have no impact on the custom culture and social trends of the area. If surveys were conducted, please provide summaries of the findings as well as copies of all questions asked. If not please explain in detail the origin of the assertion and any supporting evidence for expected community reactions.

Response: The narrative in Chapter 4 of the FEIS will be changed to address this comment.

Comment: Appendix 35-Socioeconomic Impact Analysis and Significance Criteria With respect to estimating the economic impacts (income to communities) of various management alternatives, the BLM should avoid the IMPLAN model or other input-output models that are grounded in economic base theory, as research has shown that IMPLAN is a static model that is inadequate for planning purposes (Isserman, 1980; Richardson, H.W. 1985; Krikelas, 1992). IMPLAN models do not consider the impacts of many important variables that affect regional growth in the rural West, such as amenities like high quality hunting, fishing, and recreational opportunities, open space, scenic beauty, clean air and clean water, a sense of community, and our overall high quality of life. Many of these amenities are important for attracting new migrants as well as retaining long-time residents -- both of whom earn retirement and investment income. Unfortunately, most IMPLAN models completely fail to consider the important economic role of retirement and investment (non-labor) income in the economy of a community -- which can be a fatal flaw of the model.

Response: Use of an input-output model provides a methodology for quantifying the economic impacts of management alternatives. However, it does not account for the nonmarket values that are also associated with these same alternatives. Therefore, the agency has to make a decision regarding whether or not the nonmarket values are significant enough to warrant the cost of a nonmarket study. In the case of this effort, it was decided that a nonmarket study was unnecessary. However, the Sonoran Institutes Profiles for the study area will be included in Appendix 35.

Comment: As with the other parts of this DEIS, a heroic effort is made to document the benefits of oil and gas development, without a corresponding effort to analyze other industries that may be directly or indirectly dependent on the land management decisions of the BLM. For example, on page A35-3 you discuss special efforts to include data on earnings by those self employed in the oil and gas industry. It is highly likely that there are many (probably a greater percentage) business people who are self employed in recreation enterprises and other ventures dependent on protected public lands. Please adjust the analysis in this DEIS to account for the earnings and effects of self-employed people in all industries.

Response: To assess the impacts from oil and gas development to other resources, there must be a quantifiable impact to the other resources being considered. However, based on the analysis in this document, the other resources are not expected to be significantly impacted.

Comment: On Page A35-7 recreation RVDs were separated into resident and non-resident users. This is a very important step given that the economic impact I/O analysis only accounted for expenditures from non-residents. Please discuss the assumptions, parameters and methods used to separate resident use from non-resident use for all recreation activities. Was any data collected that indicates place of residence? Please provide a more specific discussion of exactly how "...observations of BLM staff...(p. A35-7) were used to determine resident/non-resident status of recreation participants. Please present the results of the separation. Please present and discuss the data used by BLM staff to make these determinations. Please conduct a sensitivity analysis to see how the ad hoc allocation of visitation days to the resident and non-resident categories affects the results of the economic impact analysis.

Response: A narrative will be added to Appendix 35 to answer this question.

Comment: Please discuss the economic data from COHVCO that were used to estimate economic impacts for OHV use. Were the COHVCO data collected in the RMPPA? What was the study area used in the COHVCO study? Was the study peer-reviewed?

Response: A narrative will be added to Appendix 35 to answer this question.

Comment: Non-consumptive recreation uses are not fully captured by the National Survey on Fishing, Hunting, and Wildlife-Associated Recreation. Please acquire and include in your analysis data on the impacts for a more complete set of recreation activities (such as cyclists, horseback riders, hikers, campers, etc).

Response: The data used in the recreation analysis will be reviewed and, to the extent additional non-consumptive visitor day information is available from secondary sources, it will be included in the analysis in the FEIS.

Comment: Please provide a table showing data (with documentation) on the total numbers of recreational visitor days by category in order to support the data shown in Table A35-8.

Response: Appropriate tables, sources, and narrative will be added to Appendix 35 to answer this question.

Comment: The BLM's Collection of Employment and Compensation Data Comment: IMPLAN's employment multipliers are based on the productivity of labor at the national level for a given sector. If the productivity of labor at the national level is significantly different than the labor productivity at the locality being modeled, IMPLAN's estimated employment impacts can be off. This is a serious problem that the BLM has addressed in the best way possible: by collecting data on local employment, output, and earnings. With this data, IMPLAN's algorithms are able to calculate multipliers that accurately reflect local labor productivity. This allows IMPLAN to produce reasonable estimates of the change in employment given a change in output. BLM could extend this effort and collect data on direct expenditures needed to produce a given value of coal bed methane, since the inputs for CBM development may be significantly different than for typical oil and gas extraction (e.g. more wells needed to produce the same amount of conventional gas).

Response: The IMPLAN model used in this analysis has been calibrated by the University of Wyoming to reflect the spending patterns in the study area.

Comment: Impacts are not broken down into Direct, Indirect, and Induced Comment: Impacts can be of three types: Direct, Indirect, and Induced. However, it is not clear from the RMP whether the Employment impacts stated in the document encompass Direct, Indirect, and Induced changes in employment or whether they are restricted to only Direct. If all three changes are included, then they need to be listed individually. If Indirect and Induced are not included, they need to be. For example, petroleum extraction employees tend to be more productive in terms of Value of Direct Output produced per employee than other industries and likewise compensated higher than the average employee. Thus for a given change in Direct Employment, there is a relatively large increase in Induced Employment (i.e. think of it as the employment induced by the petroleum workers spending their paychecks). Since these new jobs are every bit as real as the ones created directly within the petroleum sector, they need to be included in a thorough analysis.

Response: See the Environmental Justice sections in Chapter 4 and an added table that illustrates the estimated impacts from oil and gas development across alternatives. These impacts include not only the direct impacts but also the indirect and induced impacts. Also, the entire existing narrative for the

Cumulative section was deleted, and a revised narrative was inserted in its place to expand the discussion of the cumulative impacts.

Comment: Economic Impacts Missing Comment: The IMPLAN model estimates the impact of a “shock” (e.g. an increase in CBM production) on Value of Output (listed as “Output” in IMPLAN), Value Added, and Employment. The Rawlins RMP describes the expected change in Employment from changes in drilling activity but fails to mention the changes in Output or Value Added. The problem with not including all three metrics is that the changes in Output and Value Added are likely to be vastly different for the three different activities being considered (i.e. petroleum extraction, recreation, and grazing) and policy makers should be keenly interested in all aspects of economic activity in the region, not just employment. In particular, the petroleum sector generally generates a tremendous amount of Value Added.[see footnote 1] Part of this is the higher than average employee compensation but also the higher returns on capital. Output and Value Added are automatically generated when IMPLAN generates Employment impacts so including changes in Output and Value Added should be trivially easy. Another variable that needs to be included in the RMP is Employee Compensation. Again, this is a variable generated automatically by IMPLAN. Policy makers should be very interested in whether one industry compensates its employees more than another. Moreover, since BLM has taken the effort to collect data on employee compensation, the estimates produced by IMPLAN should be reasonably accurate.

Response: IMPLAN is used in this analysis to estimate the total earnings and employment (direct, indirect, and induced) associated with each alternative. A table has been added to Chapter 4 that shows the estimated earnings and employment by alternative. Whether the oil and gas industry compensates its employees more than other sectors should be borne out by the per capita income and median family income graphs added to Chapter 3. However, both per capita income and median family income are relatively flat in 2004 dollars.

Comment: Fiscal Impacts not completely analyzed Comment: The RMP reports estimated changes in local tax streams. However, the analysis does not appear to capture the impacts of these tax streams. More specifically, the local government does not merely collect ad valorem taxes, it also spends those to hire teachers, build roads, and accomplish other tasks. These impacts (e.g. changes in employment in the education and construction sectors) are not captured in this analysis but should be using IMPLAN.

Response: IMPLAN accounts for all the economic activity generated by each alternative being analyzed. To illustrate the estimated impacts by alternative from new oil and gas activity, a new table was added to Chapter 4.

Comment: Table A35-2 Unclear Comment: In Table A35-2 the units for Labor Earnings and Employment need to be clarified.

Response: A footnote has been added to Table A35-2 that reads: “The Labor Earnings and Employment entries are the Total Earnings and Employment per [million cubic feet] MMCF.”

Wilderness Study Areas

Comment: We urge BLM to give complete protection to wilderness values in six areas proposed by Wyoming citizen groups, as well as five existing BLM wilderness study areas. The new areas have been inventoried by Wyoming groups using the criteria spelled out in the Wilderness Act of 1964 and they were found to have wilderness characteristics. They are Wild Cow Creek (new area of 33,400 acres), Pedro Mountains (new area of 13,000 acres), Adobe Town (expansion of existing WSA by 95,200 acres), Bennett Mountain (expansion by 4,200 acres), Ferris Mountains (expansion by 6,700 acres), and Prospect Mountain (expansion by 4,300 acres). BLM should be planning for an Adobe Town Wilderness of 181,000 acres and should protect that area carefully from mineral leasing and other impacts.

Comment: The BLM has failed to protect the following important areas: Adobe Town is one of the most spectacular landscapes in the entire state of Wyoming and I feel that the PA fails miserably to protect much of this area. Can the BLM provide analysis of the energy potential in this area and compare it to the spiritual, recreational, cultural, tourism and paleontological values of the area? This area is one that which managing for it's these wild values should preclude energy development. Multiple-use does not mean oil or gas. It does not mean that you must manage for all uses in one place but rather over the whole field office, which is currently over 90% open to energy development. Please protect all the citizen proposed wilderness in any way possible.

Response: Per Instruction Memorandum No. 2003 - 275 - Change 1, Consideration of Wilderness Characteristics in Land Use Planning, Attachment 1, Wilderness Characteristics are defined as features of the land associated with the concept of wilderness (naturalness and opportunities for solitude and primitive and/or unconfined recreation) that may be considered in land use planning when BLM determines that those characteristics are reasonably present, of sufficient value (condition, uniqueness, relevance, importance) and need (trend, risk), and are practical to manage. While the Citizens' Proposal areas may be reasonably natural and contain opportunities for solitude and primitive and/or unconfined recreation, they are not of sufficient value to warrant management for wilderness character. BLM no longer has the authority to establish new WSAs and does not have the authority to expand existing WSAs. Alternatives considered in the RMP must be legal. Creating new WSAs is not. The Citizens' Proposals do not have wilderness character nor do they meet ACEC criteria, so their boundaries are not shown on maps in the FEIS. Management priorities for these areas call for multiple use, including mineral development, in preference to preservation of existing landscapes. Lands within the Adobe Town WSA are not open to new leasing. As per IM 2003-275, BLM will not designate new WSAs through the land use planning process. In addition, BLM will not allocate any additional lands to be managed under the nonimpairment standard prescribed in the IMP.

Comment: It is my hope that you [BLM] will choose entire sections of the region to leave entirely alone.

Comment: BLM's own response to BCA's wilderness inventory of Wild Cow Creek indicates that this area is indeed roadless. In its map, the BLM lists only "two-tracks" within the boundary of the citizens' wilderness proposal. See Attachment 17. It is well established that these two-tracks are eligible for inclusion in lands deemed roadless under BLM's official definition. Conversely, the "improved roads," which would impair or eliminate roadless qualities under BLM's definition of "roadless," are not found within the boundary of the citizens' wilderness proposal. Thus, regardless of the BLM's opinion of the wilderness character of this unit, the area clearly possesses roadless character that is worthy of protection and retention.

Response: BLM manages public lands for balanced multiple-use. The term "multiple use" as defined in FLPMA means "the management of the 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." This

direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP DEIS and FEIS reflect this provision. Not all areas would be open to all types of uses in the RMPPA. Additionally, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (see Summary of Changes between RMP DEIS and FEIS at the beginning of each chapter in the FEIS). The RMP DEIS and FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure that resource values are protected, while allowing for acceptable levels of resource use and mineral development.

Comment: Wilderness Areas Because these lands are of extremely high importance to wildlife and public recreation, and of comparatively low value for oil and gas production, the BLM has a moral obligation to honor the wishes of the public as well as the long-term public interest and place these lands off-limits to future mineral leasing in the final Rawlins RMP.

Comment: Just for the record, I'm against anymore wilderness areas. As an avid outdoorsman there is enough land locked up that I used to be able to access. Reference Great Divide Wilderness Area.

Response: No new WSAs or designated wilderness areas are proposed in the RMPPA. There is no designated wilderness in the RMPPA. Only Congress can change the status of Section 603 WSAs, by either designating them wilderness or releasing them from wilderness consideration. There is no deadline under which Congress must act to designate or release a WSA from wilderness consideration. Such action is beyond the scope of this document. WSAs are not open to new leasing.

Comment: West end of Ferris Mountains - Page 2-32, 2-33: Under Alternatives 3 and 4, the draft EIS indicates that the west end of Ferris Mountain will be managed to preserve naturalness and opportunities for primitive and confined recreation; that surface disturbing activities on existing leases would be intensively managed; that use of heavy equipment in the area would be limited and that off-road vehicular travel for "necessary tasks" would not be allowed. However, a utility corridor runs right through the center of this area and PacifiCorp has Primary Distribution Lines that are adjacent to the area. The expansion of this Wilderness Study Area appears to be inconsistent with current and potential future uses in the area. BLM should clarify how this apparent conflict will be managed for existing facilities and for future expansions along the designated utility corridor. PacifiCorp's existing rights (Grant), and our ability to maintain existing lines and construct new lines within this Grant, must be recognized in this area.

Response: Per Instruction Memorandum No. 2003 - 275 - Change 1, Consideration of Wilderness Characteristics in Land Use Planning, Attachment 1, Wilderness Characteristics, the criteria for wilderness character has been amended, and the lands in the West Ferris area no longer meet those criteria. Therefore, these lands would not be managed to preserve naturalness and opportunities for primitive and unconfined recreation.

Comment: BLM Manual H-8550-1 at Glossary, page 3. It is important to note that this handbook remains in full force and effect as the official policy of the BLM. The Interior Board of Land Appeals has also recognized BLM's responsibility to consider roadless qualities in the NEPA process: "We observe, however, that under NEPA, the 'roadless character' of public lands is a relevant concern, irrespective of whether specific regulatory language exists which might govern its management." Colorado Env'tl

Coalition, 162 IBLA 293, 298 (2004), footnote, citation omitted. Thus, even if BLM refuses to recognize the wilderness qualities of some parcels of the citizens' wilderness proposals, the agency should still place these areas off-limits to future mineral leasing and take other protective measures in order to preserve the roadless qualities of these parcels.

Comment: [I urge you to develop a revised Resource Management Plan that will] Inventory unprotected lands for wilderness qualities

Response: Thank you for your comment. Please see Section 4.13.1.

Comment: The BLM should become very active in working with Wyoming State Lands to formulate land exchanges to include those roadless state lands in or adjacent to the Ferris Mountains, Adobe Town, Encampment River Canyon, and Bennett Mountains WSAs.

Response: Land exchanges to convert all lands within WSAs to federal land would enhance BLM's ability to manage WSAs for continued suitability for wilderness designation. High priority would be given to acquisition of nonfederal inholdings within WSAs through exchange. As per IM-2003-275, BLM will not designate new WSAs through the land use planning process. In addition, the BLM will not allocate any additional lands to be managed under the nonimpairment standard prescribed in the IMP.

Comment: The plan opens outstanding Wilderness-quality lands and important wildlife habitat such as Adobe Town, Wild Cow Creek and the Pedro Mountains to industrial development.

Response: The Adobe Town WSA is not open to new leasing. Wild Cow Creek and Pedro Mountains have long been open to leasing, although the Pedro Mountains are not currently leased. See Table 2-1 SD/MAs for the proposed Pedro Mountains SRMA.

Areas of Critical Environmental Concern

Comment: Areas of Critical Environmental Concerns should be designated to protect wildlife values as Powder Rim, Ferris Dunes, Chain Lakes, and four nesting areas of the Mountain Plover. Surface disturbance by oil and gas activities should be prohibited within these ACECs.

Comment: I urge the BLM to avoid drilling in environmentally sensitive areas. This includes critical winter range for elk and other wildlife, so critical to the long-term economic well-being of this region. And also out of the wilderness quality lands that bring the tourists and backpackers to this corner of Wyoming.

Response: In compliance with 43 U.S.C. 1712(c) 2 and 1702(a), BLM reviewed all nominated ACECs as specified in BLM Manual Section 1613-1. Nominations were evaluated based on relevance and importance criteria in 43 CFR 1610.7-2 and BLM Manual 1613-1-.11 and .12. Areas that met both importance and relevance criteria were considered as potential ACECs in the RMP/EIS. A summary of the ACEC process is located in Appendix 22. Nominated ACECs that failed to meet both relevance and importance criteria were not considered in the RMP/EIS alternatives.

Comment: Red Rim As with other proposed SMAs, this area is crucial for more than one species. While the primary concern is pronghorn crucial winter range, the rim also supports a high density of raptor nests, as well as crucial winter range for mule deer and now, occasional winter use by elk. In addition to recommending this area be designated as an ACEC, we also recommend these habitats be withdrawn from oil and gas leasing, as well as for locatable minerals. Whether an ACEC or WHMA, there are other resource issues of concern besides oil and gas. Vegetation treatments within this area need to be designed to meet wildlife objectives, as do other range improvements such as fences. Livestock grazing needs to be managed in a manner that meets wildlife objectives of the area. [Page 2-12, Section 2.3.11]

Comment: Where are any special management actions for this WHMA? The only action listed here that is different from how other public lands within the RMPPA are managed is in fire management. Without specific actions to minimize habitat loss and disturbance, such as requiring directional drilling, remote sensing of well sites, burying of powerlines, exclusion zones for pipelines, guidelines for vegetation treatments (including grazing), there is nothing “special” about management of this area at all. [Page 2-45, Section: Red Rim, Rows 2-9]

Response: Nominations were evaluated based on relevance and importance criteria in 43 CFR 1610.7-2 and BLM Manual 1613-1-.11 and .12. Areas that met both relevance and importance criteria were considered as potential ACECs in the RMP EIS. According to BLM Manual 1613 Section .22, “At least one prescription for each potential ACEC must be developed which provides special management attention.” Each of these areas is currently managed cooperatively by the WGFD and BLM under MOUs that outline the specific needs of each area. Subsequent management plans have been or will be developed for each area, which outlines appropriate management for all resource values located in each area. This type of management falls under the category of activity planning, as described in Chapter 1 of the FEIS, and thus is outside the scope of the RMP. A determination by BLM that no special protection over and above that afforded by the MOU and associated management plan was required to protect the values in the area and therefore, Alternative 1 was carried forward as the Proposed Plan in the RMP FEIS. Each of these areas will continue to be managed according to the applicable MOU and management plan, which adequately protects the resources in the area.

Comment: - The Shamrock Hills ACEC is an important raptor concentration area, containing “one of the highest known nesting populations of ferruginous hawk in the United States.” DEIS at 3-82. The ferruginous hawk populations in the RRMPA are among the most stable and important in the nation, and

it is critical to maintain this nesting concentration area as an ACEC, and withdraw it from future mineral leasing and coal development. Only Alternative 3 contains sufficiently strong protective measures to conserve the resources for which the ACEC was established.

Comment: The P.A. fails to protect these small but vital ACECs, terminating some as ACECs and in some areas (such as Como Bluffs) even opening them to oil and gas leasing. These areas encompass fossil sites, raptor nesting areas, and such other important natural features as part of the largest active sand dune system in North America. BLM's P.A. not only deems them no longer worthy of ACEC status; it removes any kind of protection. What has taken them, since the last RMP, from areas of "critical environmental concern" to areas suitable for development? The landforms didn't change; the environmental concerns didn't change; what changed was BLM's approach to them and to development issues, and we submit it was not informed, educated professional judgment, but rather pressures from industry and Washington, D.C. that have made the difference.

Response: The BLM has determined that special management is not effective in these areas because of the checkerboard land pattern. As special management is not practical, no special designation for the areas is warranted. The management actions for raptors and vegetation in the wildlife section of Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS adequately protect these areas and the values for which they were originally proposed as ACECs.

Comment: The BLM should adopt the Western Heritage Alternative as its final Rawlins RMP, with the following amendment: In addition to the ACECs recommended in the Western Heritage Alternative, the BLM should establish ACECs for all large prairie dog complexes in the planning area per the petition by Center for Native Ecosystems ("CNE") et al., and establish protective measures outlined in this petition for the management of prairie dog ACECs.

Comment: I ask the BLM to protect sensitive wildlands areas like Adobe Town, Wild Cow Creek, the Pedro Mountains, Como Bluff, Powder Rim, the Ferris Mountains, Chain Lakes, and Shamrock Hills as suggested in the Western Heritage Alternative using whatever management tools are available to you. If you feel the Western Heritage Alternative does not—does not present the tools that you need, please consider using other options that you do feel are available. Please manage these areas for their wilderness characteristics and give serious consideration of consolidating public lands in essential—in sensitive areas like the Haystack Mountains.

Response: The Western Heritage Alternative was determined to not be a reasonable alternative because of, among other things, the excessive acreage of NSO restriction proposed in the alternative. See updated text in the Rawlins RMP FEIS, Section 2.3.3, Alternatives and Management Options Considered but Eliminated from Detailed Analysis, Western Heritage Alternative.

Comment: The Sierra Club surveyed all designated NNLs with public lands in Colorado, Wyoming, and Montana. From that survey Resource Management Plans were then examined to see what management prescriptions the BLM designated for the NNLs. The information collected shows that the Rawlins Field Office is not following what other field offices have done with its NNLs in the Rocky Mountain region. From the information, it is clear the BLM should continue the ACEC designation for Como Bluff.

Comment: Como Bluff is an area uniquely suited for ACEC designation. Paleontological resources are found throughout the Rawlins Field Office, but they are heavily concentrated at Como Bluff, and because of these paleontological resources Como Bluffs has been designated a National Natural Landmark ("NNL") and is an ACEC in the existing Medicine Bow-Divide RMP. However, the BLM has recommended removal of this designation in the draft revision. This is inconsistent with other NNL designations on BLM lands.

Response: BLM has determined that special management is not effective in these areas because of the checkerboard land ownership pattern. As special management is not practical because of the amount of private land within the area, no special designation for the area is warranted. Management actions in the paleontological section of Table 2-1 will adequately protect the paleontological values of Como Bluffs.

Comment: Survival of the blowout penstemon in Ferris Dunes may hinge not only on protecting the plant populations themselves but also on guaranteeing the persistence of its obligate pollinators to assure the penstemon's ability to reproduce. These factors argue for maximizing the size of the protected area in order to have the greatest chance for long-term persistence of the blowout penstemon. The unique and isolated biota found in sand dune habitats and the fragility of these communities also dictate that the protected area be as large as possible.

Comment: The Ferris Dunes constitute a unique and biologically important community of plants and animals. For the Great Divide Basin, Maxell (1973) found that scurfpea and ricegrass communities in the sand dunes contained the greatest kangaroo rat concentrations, and 'drew the following conclusion: "Kangaroo rats were almost exclusively restricted to the sand dunes and adjacent areas in the Basin" (p; 86). The vegetated sand dunes, active sand dunes, and graminoid-dominated "vernal pond" wetlands in this area all are rated "highest priority" for conservation by the Wyoming Gap study (USGS 1996). The dunes are: also home to Wyoming's only population of the endangered blowout penstemon. Each of these attributes meets the BLM's relevance and importance criteria for ACEC designation.

Response: The Ferris Dunes Proposed ACEC was addressed in the analysis of the Blowout Penstemon Potential ACEC. Because of new inventory information, the BLM has expanded the boundaries of the Potential ACEC in the RMP FEIS. Refer to updated text in the RMP FEIS regarding the Blowout Penstemon Potential ACEC.

Comment: The BLM should designate the nominated Shirley Basin/Medicine Bow white-tailed prairie dog complex as an ACEC because of the national importance of this ferret reintroduction site to overall ferret recovery goals and the need for special management if prairie dog populations are to be conserved and the ferret recovered.

Comment: In addition to the ACECs outlined in the Western Heritage Alternative, we support the establishment of Areas of Critical Environmental Concern for large white-tailed prairie dog complexes as outlined in the ACEC Nomination presented to the BLM by Center for Native Ecosystems et al. (2003) and outlined in Alternative 3. We incorporate this ACEC nomination into our comments by reference. The relevance and importance of CNE's petition has been supported by an interagency team of prairie dog biologists from across the West. See Attachment 18. However, we reject the BLM's decision to lump all the areas we nominated as separate white-tailed prairie dog ACECs into one potential ACEC. This all-or-nothing approach whereby either all eight large complexes in the Field Office are designated as a single ACEC under one alternative (not the preferred) or no complex is protected is arbitrary and does not represent a reasonable range of alternatives.

Response: The BLM feels that management actions in the Wildlife section of Table 2-1 for the White Tailed Prairie Dog are adequate and will protect the species. The BLM continues its efforts to map all White-Tailed Prairie Dog towns and complexes. The Shirley Basin black-footed ferret (BFF) reintroduction area supports an experimental nonessential BFF population and does not warrant special designation or special management consideration. See Section 3.19.2, Black-Footed Ferret Habitat Management (Endangered), for additional discussion of the reintroduction population and the Shirley Basin white-tailed prairie dog complex.

Comment: By not considering designation of each complex individually, not mapping the nominated areas, not fully explaining why ACEC designation is not part of the preferred alternative, and not addressing many of the special management prescriptions we requested in our nominations, the BLM is brazenly dismissing our nominations and showing that it refuses to provide for white-tailed prairie dog management needs. The BLM must know that we will continue to seek Endangered Species Act listing based on this response.

Comment: The BLM has also failed to follow its own Manual's instructions by not explaining why each of the nominated complexes is not proposed for designation in the preferred alternative: The rationale for ACEC designations in the preferred alternative must be discussed. The rationale for not proposing designation of a potential ACEC in the preferred alternative must also be provided. In other words, if the proposed plan does not call for special management attention of a potential ACEC in the preferred alternative (and therefore, it is not proposed for designation), the reasons for the decision not to provide special management attention must be clearly set forth. BLM Manual 1613.33.E.

Response: BLM fulfilled its requirements under FLPMA to have a range of alternatives. According to BLM Manual 1613 Section .22, "at least one prescription for each potential ACEC must be developed which provides special management attention." The White-Tailed Prairie Dog Complexes were analyzed as an ACEC in Alternative 3. Once the impact analysis was completed for the three alternatives, it was determined whether special management was warranted to protect the relevant and important values of the complexes. The BLM concluded that management actions contained in the Wildlife section of Table 2-1, Detailed Comparison of Alternatives, for the white-tailed prairie dog are adequate and would protect the species. The BLM continues its efforts to map all white-tailed prairie dog towns and complexes.

Comment: Since even a fraction of an acre of disturbance can destroy a raptor nest or eliminate nestling production for a year or more, we recommend plans of operation be required for all locatable mineral exploration and development, regardless of size. At a minimum, such a restriction should have been considered in Alternative 3. [Page 2-45, Section: Red Rim, Row 4]

Comment: Plans of action should be required for all locatable minerals within all ACECs.

Response: 43 CFR 3809.11 identifies the areas where plans of operations are required regardless of the size of the proposed disturbance. Included in these areas are National WSRs Designated ACECs, areas designated as part of the National Wilderness Preservation System, areas designated as closed to offroad vehicle use, any lands or waters known to contain federally proposed or listed threatened or endangered species or their habitat unless BLM allows for other actions under a formal land use plan, and National Monuments and National Conservation Areas administered by BLM. Therefore, by regulation, the BLM can require plans of operation, regardless of acres disturbed, in ACECs and not in other areas, such as individual raptor nests. The Red Rim-Daley area is not proposed for ACEC designation in the Proposed Plan in the RMP FEIS.

Comment: 176: Wild horse encroachment into the Chain Lakes SMA should be restricted in order to maintain the wildlife resources --winter livestock grazing should be continued to be allowed in this allotment

Comment: Wild horses' encroachment into the Chain Lakes SMA should be restricted in order to maintain the wildlife resources.

Response: Designation of HMAs and AMLs considers wildlife resources in the Chain Lakes Area, and long-term conformance to these levels will ensure maintenance of wildlife resources.

Comment: - Disturbance by vehicles and accidents is the main reason wildlife (or specifically big game) are affected by increased traffic and lose the use of forage along roads. Dust deposition on vegetation caused by vehicular traffic on dirt roads is certainly a problem, but secondary to the disturbance. [Page 4-112, Section: 4.13.3.2, Para 1]

Comment: Due to the importance of this area to big game and Columbian sharp-tailed grouse, and the sensitivity of these soils to any disturbance, we recommend Alternative 3 for this ACEC, with a withdrawal from mineral leasing. [Page 2-37, Section: Sandhills Mmt Actions, 4]

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: This area is managed by co-op agreement between BLM and WGFD. Livestock grazing has not been authorized, for any circumstance at this point. Further, the area is not fenced or watered in such a way as to allow a well designed grazing strategy to be put in place. Relative to using the area as a temporary “grass bank”, WGFD would consider this type of proposal to relieve an area that is recovering from treatment from grazing, but would not look favorably at suggestions to take livestock from an area that is being over utilized due to drought. WGFD feels the operator and the BLM need to take responsibility for accommodating climate changes by adjusting stocking rates. If it is determined that vegetation condition can, or needs to be improved, livestock needs to be only one of the many available vegetations treatments considered. [Page 4-136, Section: 4.13.10.4, Para. 1]

Comment: We support the preferred alternative of managing this unit as a vacant allotment, provided any use of the “grass bank” created is directed solely towards improving wildlife habitats. [Page 2-43, Section: Chain Lakes, Row 7]

Response: The term “vacant” allotment has been removed from the RMP FEIS. Allotments previously referred to as vacant allotments are managed under an MOU, since the base property owners are not in the livestock business and have other resource values that determine management objectives. Although these allotments would not be withdrawn from livestock use, management of livestock grazing would be used as a tool to reach objectives.

Comment: The DEIS indicates numerous Areas of Critical Environmental Concern (ACEC) and Special Management Areas in this Appendix and in Table 2-1. Table 2-1 indicates that these areas would be intensively managed for oil and gas development but there is no indication in the RMP as to what the management policy would be. What are BLM's intended management guidelines for these areas?

Comment: What would “intensively managed” mean when applied to oil and gas development in this SMA? Remote monitoring of wells? Seasonal closure to human presence? The need to protect both wintering elk and nesting raptors makes any form of development either difficult or destructive. We recommend Alternative 3, closed to new leasing. [Page 2-39, Section: Jep Canyon, Row 5]

Response: The definition of “intensive management” has been expanded in the Glossary of the RMP FEIS to include additional reference to the various appendices that contain the BMPs important to support the management actions in Chapter 2 that refer to intensive management. The definition has also been expanded to clarify how the application of intensive management would influence on the ground management actions.

Comment: [my concerns with the plan are] The number of Areas of Critical environmental concern has been reduced leaving fossil sites, raptor-nesting areas, and other important natural areas unprotected.

Comment: Friends of the Red Desert believes BLM has given priority to de-designating ACECs, given that the total number of ACECs will drop from three to four, and that three current ACECs will lose that status. This is not giving “priority” to creation and protection of ACECs even when the area meets BLM’s own relevance and importance criteria.

Response: Per the guidance in BLM Manual 1613, nominations were evaluated based on relevance and importance criteria in 43 CFR 1610.7-2 and BLM Manual 1613-1-.11 and .12. Areas that met both importance and relevance criteria were considered as potential ACECs in the RMP/EIS alternatives. According to BLM Manual 1613 Section .22, “at least one prescription for each potential ACEC must be developed which provides special management attention.” BLM followed this guidance in the range of alternatives it proposed in the RMP/EIS. Once the impact analysis was completed for these three alternatives, it was determined whether special management was warranted to protect the relevant and important values of each area. The BLM has determined that special management is not effective in all proposed ACECs because of the checkerboard land pattern. As special management is not practical, no special designation is warranted. Management actions for each resource are found in Table 2-1 of the FEIS and adequately protect these areas and the values for which they were originally proposed as ACECs.

Comment: BLM and WGFD need to jointly develop fire management plans for natural and prescribed ignition fire to ensure that any burning has benefits to the wildlife and vegetation resources of the area. [Page 2-44, Section: Mgmt. Actions Laramie Peak, Para. 6]

Response: The Laramie Peak Wildlife Habitat Management Area is managed cooperatively by the WGFD, USFS, and BLM under an Activity Plan implemented under the Sykes Act, which outlines the specific needs of the area. This plan includes management prescriptions to improve the distribution of bighorn sheep populations by increasing and improving the amount and quality of open, secure foraging areas in site-specific habitat areas. Management actions include the use of fire, to enhance habitat.

Comment: pp. 4-126; 4.13.7.1; Chain Lakes Habitat Management Area Comment: This entire subsection addresses the subject management area. As was noted in Chapter 3, fee lands within the Chain Lakes Wildlife Area, which is managed by the Wyoming Game and Fish Department, are under lease for oil and gas development. A surface owner's agreement was signed by the State of Wyoming and the mineral owner, Anadarko Petroleum Corporation successor to Union Pacific Land Resources. As part of an agreement between BP and Anadarko, BP owned the rights to develop oil and gas resources on those fee lands subject to a Surface Owner Agreement with the State of Wyoming. Subsequent to this agreement, BP has negotiated a surface use agreement with the Wyoming Game and Fish Department. This agreement stipulates how oil and gas resources will be developed in conjunction with the wildlife area. This agreement contains provisions that address wildlife concerns and how reclamation will be accomplished. This agreement addresses many of the impact conclusions in this subsection and, therefore, mitigates those concerns. While the Federal lands are separate from the fee lands and not subject to these leases and agreements, it is critically important that the FEIS and the discussion on the Chain Lakes Habitat Management Area recognize the existence of the leases and agreements in managing the area for the future. Further, there is a reference to “surface discharges” of produced water in each of the alternatives on this area. Please be advised that BP has no plans at this time to surface discharge any produced water from this area.

Response: The impact analysis for the Chain Lakes Area was re-written for the RMP FEIS; existing lease rights were discussed. Impacts from potential surface discharge of produced water were discussed as a potential impact, although no known development activities were identified. This was done to contrast the full range of alternatives that includes limitations on surface discharge approvals within the Great Divide Basin under alternative 3 and due to the unique nature of these alkaline wetlands. The BLM

recognizes the valid existing lease rights that occur on private and federal lands. The Proposed Plan in the RMP FEIS does not include the Chain Lakes Area as an ACEC. Management actions appropriate for the RMPPA as a whole are sufficient to protect the values of the area.

Comment: Red Desert National Conservation Area The southern unit of the proposed Red Desert National Conservation Area lies partially within the RRMPA, encompassing all of the Adobe Town citizens' proposed wilderness, as well as the Kinney Rim North and South proposed wilderness units, and surrounding sensitive lands. See map, Attachment 19. The BLM should consider this area for full protection of its natural values, and manage these lands so as to maintain them unimpaired for the future consideration as a National Conservation Area by Congress.

Comment: [Albany county Commission resolves to urge the Bureau of Land Management to incorporate the following management vision into its new long term management plan] Establishing Areas of Critical Environmental Concern on the Powder Rim, Ferris Dunes, Bates Hole/Chalk Mountain, Chain Lakes, currently existing ACECs, plover nesting concentrations, and other areas of highest importance as wildlife habitat, to be managed as "No Surface Occupancy" areas for oil and gas leasing.

Response: The BLM manages public lands for balanced multiple use. The term multiple use as defined in FLPMA means "the management of the 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." This direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP DEIS and FEIS reflect this provision. Not all areas would be open to all types of uses in the RMPPA. Additionally, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (see Summary of Changes between RMP DEIS and FEIS at the beginning of each chapter in the FEIS). The RMP DEIS and FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure that resource values are protected, while allowing for acceptable levels of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents.

Comment: Why is Kinney Rim not even considered for any type of protection? Please analyze the value of this area for recreation, wildlife, and open space. I would suggest at the least NSO status for the region.

Comment: [I urge you to develop a revised Resource Management Plan that will] Grant Wilderness Study Area protection for qualifying lands like those in Adobe Town, Wild cow Creek, and Pedro Mountains

Response: Per Instruction Memorandum No. 2003 - 275 - Change 1, Consideration of Wilderness Characteristics in Land Use Planning, Attachment 1, Wilderness Characteristics are defined as features of the land associated with the concept of wilderness (naturalness and opportunities for solitude and primitive and/or unconfined recreation) that may be considered in land use planning when BLM determines that the features are reasonably present, of sufficient value (condition, uniqueness, relevance, importance) and need (trend, risk) and are practical to manage. While the Citizens' Proposal areas may be reasonably natural and contain opportunities for solitude and primitive and/or unconfined recreation, they are not of sufficient value to warrant management for wilderness character. BLM no longer has the

authority to establish new WSAs, and the Citizens' Proposal areas do not meet ACEC relevance and importance criteria. Therefore, the areas fall under the general multiple-use management for the RMPPA. The general management actions in Table 2-1, Detailed Comparison of Alternatives, are adequate to protect resource values in areas outside of special designation and management area designations.

Comment: Page 2-52, Table 2-1 Blowout Penstemon Potential ACEC. The word Potential needs to be inserted in the headings and wording of this section. Recommendation: Insert the word Potential in proper headings.

Comment: [Page 2-13, Sec.2.3.11, Special Management Areas, Upper Muddy Creek Watershed/Grizzly Area.] Again, we recommend deleting "other" from the sentence "Livestock grazing use would be managed to provide for protection or enhancement of other resource values." Although we understand that this area calls for management for other resources and resource uses, to state that livestock grazing can not be used to benefit livestock grazing in addition to benefiting these other uses is wrong. Livestock grazing can and should be used to protect and enhance livestock grazing as well as other resource values.

Response: Thank you for your comment and your interest in the Rawlins RMP, all editorial, document content, and document adequacy suggestions will be reviewed, considered, and applied to the RMP FEIS, where appropriate.

Comment: Page 3-88, Rawlins-to-Baggs Geographical Area: The area described encompasses the area currently being analyzed in the Atlantic Rim Environmental Impact Statement. However, the document fails to mention the existing oil and gas exploration and the proposed development. Moreover, it is not clear why the area is noted as a management area and what type of restrictions, if any, BLM proposes to impose. BLM should revise this section to include a discussion of the current and proposed oil and gas activities and more clearly described any proposed management restrictions.

Comment: The Atlantic Rim EIS area has many resource values that we believe should be addressed more thoroughly in the Rawlins RMP. Specifically, the area stated above has cultural, visual and wildlife resources that we think should be better protected from the outset of the plan. We realize that the area we have proposed as an Area of Critical Environmental Concern (ACEC) overlaps other proposed and existing ACECs and the Grizzly Habitat Management Area (HMA). We also know that there are significant public lands within the area and of course expect no public agency to dictate management of those lands. However, we believe that the public lands in the Atlantic Rim area represent a significant and rare enough resource that they should be treated with special concern in the Rawlins RMP. We considered the following in requesting that this area be analyzed more closely: 1. One of the highest concentrations of wintering elk in the U.S. 2. High concentrations of wintering mule deer. 3. High concentrations of raptors and raptor nesting habitat. 4. High quality sage grouse year-round habitat and active sage grouse leks. 5. Historic trails (Cherokee, Overland, and the Rawlins to Baggs trail). 6. Traditional Native American hunting grounds. 7. Visual resources are significant in that much of the area reflects wilderness qualities. [see letter for map of area and ACEC proposal evaluation form]

Response: BLM Manual 1613 identifies the criteria of relevance and importance an area must have to be evaluated for ACEC status. There are several proposed ACECs within or near the Rawlins to Baggs Geographic Area, also known as Atlantic Rim Area, including Jep Canyon, Muddy Creek, Sand Hills/JO Ranch Expansion, and Historic Trails. Additionally, the Wild Cow/Cow Butte Proposed Wildlife Habitat Management Area was evaluated for ACEC designation based on relevance and importance criteria in 43 CFR 1610.7-2 and BLM Manual 1613-1-.11 and .12. The Wild Cow/Cow Butte Proposed Wildlife Habitat Management Area (WHMA) did not meet ACEC relevance and importance criteria. Please see updated text in Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS for management actions associated with this area.

Comment: Herbicides should not be employed to control invasive plants in Wyoming Toad habitat under any alternative. These chemicals may impact the toad. Anurans are highly susceptible to chemicals such as herbicides and pesticides. [Page 4-141 Section: 4.13.13, Para 3]

Response: The BLM requires that an environmental assessment be completed prior to all herbicide treatment projects. Surveys would be conducted as part of the environmental analysis to determine if Wyoming toads are present. See text in Appendix 19.

Comment: The preferred alternative 4 is not significantly different than Alternative 2 (development of resource) and offers this biologically important area little to no additional protection. As emphasized during pre-development meetings at the Rawlins field office, the area should be managed as an ACEC. Moreover, we recommend Alternative 3 (resource protection) be the preferred alternative for this entire section. Federal land management agencies are required to protect and preserve caves and natural resources associated with them under the Federal Cave and Natural Resources Protection Act. Under this act, BLM is mandated not only to protect the wildlife that occurs within the Cave Creek Cave, but also protect the Cave and the natural system itself as a natural resource. Although BLM acknowledges the value of the cave to bats, BLM fails to acknowledge the value of the cave as a resource itself. [Page 2-48, Section: Shirley Mtn Cave]

Response: Compliance with the Federal Cave and Natural Resources Protection Act has resulted in a seasonal closure of the cave from October 15 through April 30 for the protection of the bat hibernacula (in coordination with the WGFD) and other management actions in Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS that provide protection for bat species and other wildlife that use this habitat. Management actions developed for protection of wildlife species also protect the natural cave system.

Comment: Upper Muddy Creek Watershed/Grizzly Area section. The WGFD supports the foundation that alternative 3 identifies. However in the interest of protecting sensitive aquatic wildlife, we suggest as a minimum, an alternative that provides NSO stipulations applied to existing oil and gas leases within the entire perimeter boundary of the proposed Upper Muddy Creek Watershed/Grizzly potential ACEC or SMA. Furthermore, we suggest the alternative withdraw all future oil and gas leases from inside the boundaries of the Upper Muddy Creek Watershed/Grizzly Potential ACEC or SMA. We are concerned that energy development within the upper Muddy Creek drainage will jeopardize the unique relic native fish assemblage in the Muddy Creek drainage upstream of the Weber headcut structure. If energy development expands the resulting activities will cause increasing surface disturbance resulting in increased sediment transport into the water ways, changes to the hydrology as rates of infiltration and surface runoff is altered all resulting in changes to the geomorphology of the stream channels. Both the native game and native non-game fish species will be negatively impacted by changes to sedimentation rates, the hydrology, and geomorphology of the Muddy Creek drainage due to surface disturbing activities, even with "intensive management". Under current conditions salmonid spawning is limited to the tributaries of upper Muddy Creek including McKinney Creek, Littlefield Creek, and Muddy Creek. Increased sediment could negate the ability of Colorado River cutthroat trout to reproduce in the tributaries of upper Muddy Creek drainage. Flannelmouth suckers, bluehead suckers, and roundtail chub are dependent on deeper water habitats with gravel/cobble bottoms. With increasing disturbance and sediment yield we risk altering the habitat so it is no longer supports this relic population of native fishes. [Page 2-54, Section: Muddy Creek / Grizzly]

Response: To protect the special resources present within the Upper Muddy Creek Watershed/Grizzly potential ACEC, the RMP FEIS incorporates several additional management actions. The area would be closed to new oil and gas leasing to preserve the watershed characteristics that create and maintain the diverse aquatic habitat conditions necessary for the persistence of the complete native fish assemblage.

Surface disturbing activities on existing leases would be intensively managed. Conservation and management actions for native Colorado River fishes would be actively pursued between state and federal agencies. Additionally, the boundary of the Upper Muddy Watershed SD/MA has been adjusted to focus watershed management activities within the upper Muddy Creek watershed. Those portions of the Grizzly allotment outside of the watershed have been included in the new Wild Cow SD/MA. This adjustment would increase the effectiveness of subsequent ecosystem management efforts.

Comment: Upper Muddy Creek Watershed/Grizzly Area section: We prefer Alternative 3 regarding no surface disturbance in riparian areas but would like to see the stipulation strengthened, to include all riparian zones within the SMA. [Page 2-55, Section: Muddy Creek / Grizzly]

Response: The BLM agrees that a setback distance of 500 feet should apply to all riparian systems present within the SD/MA. The Proposed Plan in the EIS currently includes a surface disturbance protection measure for the entire RMPPA. Avoidance areas for waterways would include (1) identified 100-year floodplains; (2) areas within 500 feet of perennial waters, springs, wells, and wetland/riparian areas; and (3) areas within 100 feet of the inner gorge of ephemeral channels.

Comment: Upper Muddy Creek Watershed/Grizzly Area section: We prefer Alternative 3 “Actively pursue, in cooperation with WGFD, USFS, and private landowners, opportunities to expand reintroduction efforts for CRCT and other cold and warm water fishes into adjacent habitats within the Upper Muddy Creek watershed”. It is imperative that our agencies work together to conserve and perpetuate this relic population of native fish within the Muddy Creek drainage upstream of the Weber Headcut structure. Following intensive surveys in the Green River drainage, we believe the Muddy Creek drainage supports the most complete native fish population assemblage of bluehead suckers, flannelmouth suckers, and roundtail chub found at the present time in Wyoming. Habitat for the native non-game community exists both upstream and downstream of McKinney Creek. Restoration efforts need to focus on a watershed scale in this drainage to insure the future of this fish community. [Page 2-55, Section: Muddy Creek / Grizzly]

Response: The BLM understands the importance of the relict native fish assemblage found within the Upper Muddy Creek Watershed/Grizzly SD/MA. Collaborations and cooperative efforts would be of paramount importance when designing and implementing biologically meaningful conservation strategies for this rare native fish assemblage. Portions of Alternative 3 have been selected for inclusion within the Proposed Plan in order to expand the scale of cooperative efforts to include those habitat that are necessary to restore the functionality of the complete native fish assemblage. The boundary of the Upper Muddy Creek Watershed SD/MA has been adjusted to focus efforts on watershed processes of importance to the creation and maintenance of habitat for the native fish assemblage within the SD/MA.

Comment: There are no management actions directed towards achieving the goal of developing a CRCT fishery on part of this site, nor are any mentioned in the MOU (Appendix 23). What actions does the BLM envision to meet this goal? [Page 2-57, Section: High Savery Dam, Goal 2]

Response: The BLM and its cooperating agencies have determined that the development of a CRCT fishery at High Savery Reservoir falls outside of the jurisdiction of the BLM. However, support for this effort is afforded by actively managing habitat within the High Savery allotment, as indicated in Appendix 23 of the MOU between BLM and the Wyoming Water Development Commission (WWDC) concerning High Savery Dam and Reservoir Project.

Comment: None of these alternatives seems sufficient to insure the survival of the Wyoming Toad. If the BLM intends to purchase lands, then they should manage them with the Wyoming Toad’s needs as their number 1 priority. [Page 2-90, Section: Impacts Summary - Laramie Plains Lakes, Row 1]

Response: The BLM continues to coordinate with the USFWS to expand potential habitat for this listed species.

Comment: The hydrology of the Shirley Mountain Cave system is certainly based upon a larger collection area than a ¼ mile buffer. Special consideration must be given to timber harvest and other activities on their impact to the cave's dynamics. [Page 4-139, Section: 4.13.12.3, Last Para.]

Response: Individual proposals for projects beyond the restrictions defined in the Proposed Plan would be analyzed on a project-specific basis. Actions that may affect the hydrology of the cave would be mitigated to ensure that the cave's dynamics are not adversely affected.

Comment: While the listed management goal is certainly important, the Chain Lakes Cooperative Management Area was originally set aside for pronghorn, not the alkaline lakes. We recommend a second management goal here, to provide a fence-free migration corridor for pronghorn and pronghorn winter habitat under severe winter conditions. Management actions would include modifying existing fences to standards, managing livestock use to improve or maintain shrub components important to pronghorn, and designing energy development and roads to minimize impediments to migrating pronghorn. [Page 2-42, Section: Chain Lakes, Row 1]

Response: Table 2-1, Detailed Comparison of Alternatives, and Section 3.13.2, Areas of Critical Environmental Concern (ACEC), have been updated in the RMP FEIS to include additional text concerning the goals and objectives for the Chain Lakes Cooperative Management Area.

Comment: How would fuel breaks be created "along existing roads and vehicle routes" in the Sand Hills? Is the BLM proposing to conduct burns along these routes as fuel treatments? Even if treatment only occurs along existing roads and routes, there would be a large acreage treated because of the high density of vehicle routes. Any additional treatments in the Sand Hills would be a significant impact to the area and the wildlife populations dependant upon it since roughly a third of the area has already been burned from two wildfires in the area 11 years ago. [Page 4-238, Section: SMAs, Para 4]

Response: The text in Section 4.19.5, Impacts under Alternative 4: Proposed Plan, Special Designations and Management Areas, has been updated in the RMP FEIS to remove the reference to the use of fuel breaks in the Sand Hills/JO Ranch ACEC.

Comment: 3-109 to 110 The discussion of rare plants and plant communities makes it clear that these species occur in very well defined, discrete areas. For this reason, all rare plant species and unique plant communities should be afforded special management attention. For example, the "Muddy Gap cushion plant community" appears to be well known and to occur in a specific area. Why is this area not afforded some special management status? We believe it should be. While the Blowout Penstemon ACEC and Chain Lakes WHMA may meet some of these needs, it is not apparent that all species or unique plant communities whose location is reasonably well known receive special protection. This should be corrected.

Response: Rare plant species are afforded protection regardless of ACEC or WHMA status. Please see the Vegetation section of Table 2-1 of the FEIS for management actions associated with sensitive plant species.

Comment: The Blowout Penstemon ACEC should be withdrawn from further oil and gas leasing, and NSO stipulations applied to existing leases. The BLM does not have adequate resources or knowledge to manage lands for both development and endangered species habitat, especially for a species such as the blowout penstemon which shifts with habitat availability. The BLM acknowledges this problem on p. 4-

148 and 4-150 (discussion of impacts): “surface disturbing and disruptive activities would still affect the future expansion of the population...” and would “indirectly affect the future expansion of the population.” In addition, oil and gas development bring other disturbances, such as roads and pipelines, and additional traffic and OHV access. The risk of noxious weed invasion is increased.

Response: The BLM would continue to allow oil and gas leasing with an NSO stipulation within known blowout penstemon habitat. Text that cross-references the management actions between the Blowout Penstemon ACEC and the Vegetation section, Special Status Plant Species and Habitat, has been updated in Table 2-1, Detailed Comparison of Alternatives. Text has been added to Section 4.13.15.1 to clarify impacts to blowout penstemon habitat and populations.

Comment: Bates Hole/Chalk Mountain The RMP / DEIS states that the Bates Hole/Chalk Mountain “cushion plant community” does not meet the relevance and importance criteria required for ACEC designation (p. 2-5). This conservation site was recommended for ACEC designation not for cushion plant communities, but rather because of the concentration of populations of the Sensitive Laramie false sagebrush (*Sphaeromeria simplex*), as well as state rare plant species. This site provides the opportunity to protect multiple occurrences of species of concern. This area satisfies the ACEC criterion of relevance due to the presence of plant species of concern, both BLM Sensitive (the globally-rare Laramie false sagebrush, *Sphaeromeria simplex*) and state rare species. The importance criterion for ACEC designation is met due to the irreplaceable nature of the botanical values, as well as the need for special management in the multiple-use setting. The BLM acknowledges (Appendix 24) the difficulty of mitigating impacts to Special Status plants, and that any decline in population size or habitat quality is significant. To meet the agency directive to avoid irreversible or irretrievable commitment of resources, this area should be removed from oil/ gas leasing, with restrictions on other types of surface disturbance.

Response: See updated text in Appendix 24, Mitigation Guidelines for Special Status Plants, in the RMP FEIS. In compliance with 43 U.S.C. 1712(c) 2 and 1702(a), BLM reviewed all nominated ACECs as specified in BLM Manual, Section 1613-1. Nominations were evaluated based on relevance and importance criteria in 43 CFR 1610.7-2 and BLM Manual 1613-1.11 and .12. Areas that met both relevance and importance criteria were considered as potential ACECs in the RMP FEIS. A summary of the ACEC process is in Appendix 22, ACEC Designation Process. Nominated ACECs that failed to meet both relevance and importance criteria were not considered in the RMP EIS alternatives.

Comment: Chain Lakes The Chain Lakes area is not considered for ACEC designation under any of the alternatives, even though it satisfies the criteria of relevance and importance. This site, the lowest point of the Great Divide Basin, contains vegetation types of concern, and is important habitat for wildlife, including migrating shorebirds. The graminoid-dominated wetlands are a cover type identified as high priority by WYGAP (Wyoming Gap Analysis). Unusual geologic features (mud volcanoes) are present as well. The BLM appears to recognize the Chain Lakes area to be in need of special management (e.g. Table 2-1, Special Management Areas section, p. 2-42). However, very little in the way of protection is offered under the preferred alternative. Actions proposed under Alternative 3 should be adopted for this area to restrict oil and gas leasing, as well as mineral entry and disposal. The concept of “additional protection” presented under the preferred alternative is ridiculous. Even Alternative 3 is inadequate, resorting once again to “intensive management,” which guarantees nothing (see discussion above). This area should be managed not just for protection of the lake system, but for the suite of vegetation types present, including the adjacent shrubland communities. The Chain Lakes area is an excellent example of alkaline basin and wetland ecosystems, and should be managed as such, with maximum protective measures in place.

Response: Refer to Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS. The Chain Lakes Wildlife Habitat Management Area is designated an ACEC in Alternative 3. This area is managed

cooperatively by the WGFD and the BLM under an MOU that outlines the specific needs of the area. A determination by the BLM that no special protection over and above that afforded by the MOU was required to protect the values in the area, and therefore, Alternative 1 was carried forward into the Proposed Plan. This area would continue to be managed according to the MOU, which adequately protects the relevant and important resources from risk or threat of damage or deterioration.

Comment: I am disappointed that none of the proposed alternatives include adequate protection for plant biodiversity values, especially given the potential and pressure for energy development in the area. Deferring to case-by-case decisions or intensive management during resource development, does not constitute protection. The BLM is treating special management area and Sensitive designations as little more than window dressing, with no real protection implemented. These programs were designed to avoid the need to list along with all the accompanying expense and red tape, and to provide flexibility in management. However, with so little actual protection resulting from the programs, it appears that listing under the ESA is the only effective avenue available.

Response: The RFO is still in the process of protecting all the Special Status Species and habitat. BLM has 37 species on our sensitive list. Higher priority (because of gas field development) has been given species, such as mountain plover (formerly proposed), sage-grouse (petitioned for listing), white-tailed prairie dogs (because of BFF concerns), and ferruginous hawk (because of the extent of development in nesting habitat). The warm water-sensitive fish species are the subject of ongoing research and monitoring at present. Blowout penstemon and Gibben's beardtongue are also currently undergoing extensive inventory and research. Because of time constraints, personnel limitations, and budgets, RFO has not been able to acquire all the needed information on the remaining Special Status Species. Rawlins Field Office is seeking outside funding through the Budget Planning System process to coordinate with other entities (e.g., Wyoming Natural Heritage) to help us fill data gaps. As noted previously, timing stipulations and controlled surface uses have been applied for the higher priority Special Status Species. As more information is gathered on Special Status Species in the future, Rawlins Field Office will seek to implement the same protective measures. As a consequence of this lack of information on the remaining Special Status Species, Rawlins Field Office does not yet have maps of "crucial habitats."

Comment: Strongly disagree that terrain will limit OHV traffic resulting in minor impacts. Rather, the terrain will concentrate OHV traffic in flat riparian areas causing substantial resource damage, especially given the relatively narrow riparian corridors. [Page 4-130, Section: 4.13.8.2, Para.2]

Response: The public lands riparian areas in the Laramie Peak Wildlife Habitat Management Areas are blocked in by private lands, which minimizes the potential for offroad vehicular traffic.

Comment: In the Upper Muddy Creek Watershed/Grizzly Area, proposed as an ACEC under Alternative 3, even the strongest protections considered in the DEIS would not prevent substantial impacts to important resources. Impacts from the transportation network common to all alternatives include "accelerated erosion throughout the area," which would "impact native fish habitat by increasing sediment delivery" and degrade upland habitat. DEIS at 4-150. Surface disturbing activities within big game crucial range would also be allowed under all alternatives. DEIS at 4-151. Surface locations for oil and gas development would be allowed under this alternative. DEIS at 4-153. Thus, while the Preferred Alternative largely permits laissez-faire continuation of existing non-protection (DEIS at 4-154), even the most protective alternative would allow significant impacts to the roadless and wilderness characteristics that BCA has identified in the Wild Cow Creek citizens' proposed wilderness.

Response: To protect the special resources present within the Upper Muddy Creek Watershed/Grizzly SD/MA, the RMP FEIS incorporates several additional management actions. The area would be closed to future oil and gas leasing to preserve the watershed characteristics that create and maintain the diverse

aquatic habitat conditions necessary for the persistence of the complete native fish assemblage. The impact analysis in Section 4.17 identifies increases in erosion throughout the area from management actions related to oil and gas development. The impact analysis in Chapter 4 of the RMP FEIS has been updated for the Muddy Creek Watershed/Grizzly Area.

Comment: The JO ranch building should be maintained and/or restored in order to preserve this cultural area. Alternative 3 addresses this issue in the best way.

Response: The BLM will continue to operate under the laws that guide its cultural resource management program. See the updated text in Appendix 5, Cultural Resources Management, of the RMP FEIS for a description of the cultural resource program and pertinent laws and regulations.

Comment: JO Ranch SMA – Oil and gas leasing should be pursued on a limited basis in order for the mineral owners to benefit without destroying this valuable cultural resource.

Response: The BLM will not allow drilling on 18 acres of the JO Ranch Portion of the Sand Hills ACEC. Mineral owners would continue to be allowed to develop their leases without major constraints.

Comment: 1-13 BLM attempts to diminish the significance of ACEC designation and the protections that might apply. BLM must bear in mind the provisions of FLPMA: ACECs are areas “where special management attention is required,” this being to “protect and prevent irreparable damage” to the important values recognized. 43 U.S.C. § 1702(a). BLM should recognize and abide by this legislative mandate first and foremost: this is the law, BLM's regulations are subservient to it, and the RMP EIS is even less able to carve out any new definition of ACECs or how they will be managed. Thus, the starting proposition for the ACEC planning criteria should be a statement of the overarching law, which is FLPMA. Will BLM modify its discussion of ACECs and their management to reflect this? Why or why not?

Response: Please see updated text in Appendix 22, ACEC Designation Process, of the RMP-FEIS..

Comment: In an April 11, 2003 letter to Utah Congressman Bob Bennett, Interior Secretary Gale Norton stated “land areas of any size that contain ‘Areas of Critical Environmental Concern (ACEC)’ can be identified and managed for wilderness characteristics.” We petitioned the Adobe Town citizens’ proposed WSA expansions as ACECs under the BLM’s forthcoming Great Divide/Rawlins RMP in our comments on the Desolation Flats FEIS of July 6, 2004. The Citizens’ Wilderness Inventory of Adobe Town served as our ACEC petition, and is incorporated into these comments by reference. These areas possess rare geological features of national park quality, and therefore satisfy the relevance and importance criteria for ACEC designation. See BLM Manual 1613. The BLM has yet to consider this ACEC petition, which it must do under the Rawlins RMP EIS.

Response: Comments received for the Desolation Flats FEIS were not considered during the development of the RMP DEIS. The BLM completed an ACEC relevance and importance criteria determination as per BLM guidance in BLM Manual 1613 and concluded that the Adobe Town fringe area does not meet both relevance and importance criteria and was not considered in the Final RMP/EIS alternatives. Wilderness character is not a component of either relevance or importance in BLM Manual 1613. As per BLM Manual 1613, wilderness character can be managed for, when other relevant and important resources are present to warrant designation as an ACEC. Wilderness character cannot be the sole reason or purpose for ACEC designation.

Comment: Special Management Areas. We noted that there are only 67,730 acres in Wilderness Study Area (WSA). We appreciate your consideration to protect the special management areas, such as WSA,

Wildlife Habitat Management Areas, and other areas that are small in area extent but provide the best remaining protections for aquatic and terrestrial resources that will be impaired by future oil and gas development and other activities. We recommend that further protections be considered to meet wildlife and other needs, if necessary or appropriate, after consultation with the wildlife management agencies and interest groups.

Response: The BLM would continue to manage for preservation of wildlife habitat. See the Wildlife and Fisheries section of Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS for specific management actions associated with the protection of wildlife habitat. Furthermore, Appendix 15, Best Management Practices, describes the BMPs that BLM will employ on a site-specific basis when conditions warrant.

Comment: The JO ranch SMA --The JO ranch buildings should be maintained and/or restored in order (to) preserve this cultural area Alternative 3 addresses this issue in the best way. --Oil and gas leasing should be pursued on a limited basis in order for the mineral owners to benefit without destroying this valuable cultural resource. --I support the historic interpretive center in order to educate the public on the history of the JO Ranch and the area.

Response: The BLM will continue to operate under the laws that guide its cultural resource management program. See updated text in Appendix 5, Cultural Resource Management, in the RMP FEIS for a description of the cultural resource program and pertinent laws and regulations. The BLM would not allow drilling on 18 acres of the JO Ranch Portion of the Sand Hills ACEC. Mineral owners would continue to be allowed to develop their leases without major constraints.

Comment: Under Alternative 3, should state that livestock would be used on the Pennock Mountain WHMA only to benefit wildlife habitat [Page 2-46, Section: Mgmt. Actions Pennock Mt, Last Row]

Response: Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS has been updated to include text that makes it clear that livestock grazing would be used as a tool to benefit wildlife habitat.

Comment: Why aren't the words "and for all other compatible use" appended to the management goal for this SMA (or all wildlife SMAs, for that matter)? It would make little sense to designate an area as a "wildlife habitat management area" and then allow uses which are incompatible with the wildlife resource being protected. The words "and for all other compatible use" should be considered for all WHMAs. [Page 2-45, Section: Red Rim, Row 2]

Response: FLPMA requires the BLM to manage for multiple use. Table 2-1, Management Actions, address those types of activities that could be incompatible with WHMA goals and objectives. Those types of activities not addressed by management actions within the individual WHMAs are assumed to be compatible with the WHMA goals and objectives.

Comment: There is a 4-5 mile buffer around trails, the Adobe Town Wilderness Area and other areas indicated in several maps, such as Utility/Transportation Systems Avoidance Areas (Map2-33) and Visual Resource Management (Map 2-50). What are the management guidelines for these buffers?

Response: Please refer to management actions in Table 2-1 of the FEIS for specific management guidelines for each resource program.

Comment: A much stronger management direction is needed for the Sand Hills, which not only addresses the burgeoning vehicle-use problem, but also withdraws the area from future oil and gas development, which threatens the very qualities for which this ACEC was established. We urge the BLM

to expand this ACEC to include the JO Ranch lands, as under Alternatives 3 and 4. Alternative 3 is the only alternative that contains sufficiently strong protective measures for this area.

Response: The JO Ranch Expansion is included in the Proposed Plan in the RMP FEIS. The development of the Proposed Plan was based on the impact analysis for Alternatives 1 through 3. The BLM determined that the management actions outlined in the Proposed Plan would adequately protect the relevant and important values of the ACEC. See the updated impact analysis in Chapter 4 of the RMP FEIS.

Comment: The BLM has failed to protect the following important areas: 1. Why does the BLM plan not consider the Pedro Mountains for any type of protection? I have hiked up the craggy rocks and enjoyed the view as well as the mysterious energy that abounds there. I support the WHA's designation as a WSA or any protection that will allow the area to be officially off limits to human activities such as energy development, mining etc. The BLM plan fails to acknowledge that the area provides nesting habitat for 20 pairs of roosting bald eagles or that it is important habitat for the over 800 elk in the Shirley Basin herd. This area is also a remarkable climbing resource. Will the BLM make it a Special Recreation Management Area? Why or why not? Access the area is an issue because of the many surrounding private lands and I would encourage the BLM to work with land owners to ensure the 2-track on the southern boundary does not remain gated so that the people of Wyoming can better access this treasure. I passionately feel this area should be protected and am confused why it is not after looking at geological maps it does not seem to have conflicts with other multiple uses. Will the BLM protect this area? Why or Why not?

Response: Please see the revised SD/MA section of Table 2-1 for the management goals, objectives, and actions for the Shirley Mountains SRMA. Objectives call for the SRMA to be managed for rock climbing and other compatible nonmotorized recreation. Unnecessary and undesirable routes would be closed, and the only new motorized access would be for trailheads. Footpaths would be created to Pyramid Peak and Dome Rock, with campsites designated for backpackers near Pyramid Peak.

Comment: Ferris Dunes should not be reduced to 4,020-acre ACEC for blowout penstemon under Alt. 3 and PA without restrictions on oil and gas. I support the strong restrictions on mining but feel that energy development presents a more substantial threat and should be limited to directional drilling from outside the ACEC boundaries designated by the WHA.

Response: The BLM will continue to allow oil and gas leasing with an NSO stipulation within known blowout penstemon populations. Because of new information, the BLM has decided to expand the boundaries of the Potential ACEC. Please see updated text in Table 2-1 of the Blowout Penstemon Potential ACEC and Section 4.13.15.1.

Comment: Wilderness Study Areas. The characteristics of the areas defined as Wilderness Study Areas (WSAs) also meet the criteria set forth in 43 CFR 1717(s)(3) and 43 CFR 1702(a) for designation as ACECs. These areas should be designated ACECs in addition to WSAs so the areas will receive an appropriate level of protection in the event they are not formally designated as Wilderness Areas. [Page ES-11, Section: SMAs]

Response: According to BLM Manual 1613, one criterion for not designating an area as an ACEC is that it is being proposed for designation under another statutory authority, e.g., wilderness, and requires no management attention differing from that afforded the entire designation. The BLM followed this guidance in its selection of areas to evaluate for ACEC status.

Comment: We recommend adding the words "or when reconstructed." following "as needed" for Alternative 1 and the Preferred alternative. [Page 2-38, Section: Sandhills, Row 5]

Response: Thank you for your comments. See updated text in Table 2-1 of the FEIS.

Comment: It is unclear from the DEIS what types of activities will be restricted in the Blowout Penstemon ACEC. In Table 2.1 under Special Status Plant Species and Habitat (p. 2-63), surface-disturbing activities will be allowed with “intensive management,” even within areas of known plant habitat. Intensive management is no more than a smokescreen, apparent in the definition of the glossary.

Response: See the updated text in Table 2-1, Detailed Comparison of Alternatives for the Blowout Penstemon Potential ACEC, and Appendix 14, Biological Opinion, which contains conservation measures for Special Status Species. Both sections contain management actions and BMPs that would be considered within the Blowout Penstemon Potential ACEC. The definition of intensive management has been expanded in the Glossary of the FEIS to include additional reference to the various appendices that contain the BMPs important to support the management actions in Chapter 2 that refer to intensive management. The definition has also been expanded to clarify how the application of intensive management would influence on-the-ground management actions.

Comment: ACECs are to be designated when development or use will occur in an area that meets the relevant and significant criteria, or if use will occur in an area that meets the criteria when no development must be ensured to protect the resources. BLM recognizes that nearly all of the ACECs at issue here are likely to be “developed” or “used” to some degree and that some of them are areas where “no development” must be ensured, and thus the special management attention of an ACEC designation is required. See, 3-78 to 89, 4-106 to 165 (BLM recognizes that virtually all potential ACECs are under some level of development threat). These lands require special management attention to protect and prevent irreparable damage to the resources in these areas that BLM recognizes are important and relevant.

Response: In compliance with 43 U.S.C. 1712(c) 2 and 1702(a), BLM reviewed all nominated ACECs as specified in BLM Manual, Section 1613-1. Nominations were evaluated based on relevance and importance criteria in 43 CFR 1610.7-2 and BLM Manual 1613-1-.11 and .12. Areas that met both importance and relevance criteria were considered as potential ACECs in the RMP/EIS. A summary of the ACEC process is located in Appendix 22. Nominated ACECs that failed to meet both relevance and importance criteria were not considered in the RMP/EIS alternatives. While an area may meet the relevant and importance criteria, special management may not be warranted, if it is found that standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage or degradation.

Comment: Sand Hills BLM notes that the Sand Hills ACEC provides crucial winter range for mule deer and elk, raptor nesting and foraging habitat, and populations of sage grouse and Columbian sharp-tailed grouse. DEIS at 3-81. For the Sand Hills ACEC, “The high amount of vehicle use on these vegetation communities and fragile soils have resulted in a high road density (in some places reaching 9 miles of road per square mile).” DEIS at 3-81. Certainly, road densities of nine miles per square mile and the vehicle traffic associated with them are incompatible with maintaining sensitive wildlife habitats such as these.

Response: Management actions for the Sand Hills ACEC restrict vehicle traffic to designated roads and vehicle routes, reducing potential conflicts between animals and people. Additionally, the area is also closed to over-the-snow vehicles. While there are approximately 9 miles of road and trails per square mile, the majority of these are two-tracks, which limit the amount of traffic in the area.

Comment: Chain Lakes The BLM has labeled the Chain Lakes “a unique desert alkaline wetland community.” DEIS at 3-83. The protection of this area as a WHMA is confusing to the reader as

presented in the DEIS. It appears that the restrictions on oil and gas development, the primary threat to the natural values of this area, would be substantial similar between alternatives 2 and 3: closure of the area to future mineral leasing, with restrictions for surface disturbances within 500 feet of wetlands and special guidelines for wastewater discharges. DEIS at 4-129. We advocate for No Surface Occupancy leasing in this area, but no future leasing is an alternative that adequately protects the resources we are concerned about from the perspective of leases that are entered into in the future.

Response: Prior to SD/MA designation, the Chain Lakes SD/MA had already been leased for oil and gas exploration and development. Additionally, this area is in the checkerboard landownership pattern along the Union Pacific Railroad (UPRR), and portions contain private mineral rights. Private surface is WGFD ownership. The BLM cannot preclude future mineral development in the area but instead proposes to not re-offer leases in the area, if existing leases expire before development. The area would be managed intensively to maintain current habitat integrity; this includes the application of more restrictive mitigation measures and BMPs, where appropriate.

Comment: 4-149 to 150 It is stated that disturbances may disturb and degrade blowout penstemon habitat and that future population expansion would be affected. Give this, BLM must consult with the Fish and Wildlife Service on effects to the penstemon and means to mitigate those impacts.

Response: BLM does consult with the Service regarding blowout penstemon. Please refer to the Biological Opinion (BO) in the FEIS.

Comment: Shouldn't Alternative 3 give at least the same level of protection as Alternative 4? [Page 2-49 Section: Mgmt. Actions Wick-Beaume, Top Row]

Response: Please see the updated management actions for the Wick-Beaume area in Table 2-1 of the RMP FEIS.

Wild and Scenic Rivers

Comment: The DEIS proposes a “wild river” designation, which may be outside of the BLM’s authority.

Response: Proposing a river for inclusion in the National Wild and Scenic Rivers System (NWSRS) is not outside BLM’s authority. In accordance with BLM Manual 8351, the BLM is responsible for identifying all rivers segments on BLM-administered lands that may have the potential to be included in the NWSRS. See Appendix 3 for the WSR designation process. The Rawlins WSR report is available under documents and bulletins at <http://www.blm.gov/rmp/wy/rawlins>.

Transportation and Access

Comment: The real problem with the plan options is the number of miles of roads proposed in each. These roads will destroy the very nature of the area.

Comment: A minimum number of roads should be constructed in areas in order to minimize surface damage. --The road system should be designed before development by all companies in order to minimize surface damage.

Response: All road projects will be analyzed in the same manner. Any construction of roads and facilities in conjunction with project development must follow Onshore Order 1, and any and all stipulations attached to the permit for that project. Once roads become unnecessary or obsolete, they will be reclaimed.

Comment: During this planning process, BLM must evaluate the road system in the Resource Area and determine the minimum system of routes necessary. Based on that analysis, BLM should close redundant routes; roads with no destination or purpose; illegal, “ghost,” or “wildcat” routes; and roads in sensitive areas. The RMP should make these closures immediately effective, provide for the reclamation of closed routes, and ensure sufficient funding for reclamation, monitoring, and enforcement. See comments submitted by the Wyoming Game and Fish Department at 25 (“We detect no measures proposed within any of the proposed alternatives to mitigate or [manage] the proliferation of unauthorized OHV trails and associated resource degradation. The loss of habitat and fragmentation of habitat

Comment: The EIS/RMP looks at roads but fails to quantify or discuss existing trends toward increased traffic on the existing transportation network. These should be addressed in the analysis and decisions. [Page 4-166-4.167, Section: 4.14.1]

Response: As explained in Appendix 21, travel management planning, including OHV regulations, trails, closures, impacts to vegetation, soils, wildlife habitat, road density, redundant routes, and over-the-snow vehicle use, for the overall RMPPA will be accomplished in the 5 years following the signing of the RMP. Until the travel management plan is in effect, travel is limited to existing roads and vehicle routes, unless otherwise designated. See OHV and SD/MA sections of Table 2-1 for OHV decisions and designations in specific special designations and management areas, respectively. Comprehensive Trails and Travel Management guidance is found in the Land Use Planning Handbook, H-1601-1, Appendix C, page 17, and clarifications are found in Instruction Memorandum 2004-005.

Comment: Pages 2-10, 3-43, glossary: It is unclear whether PacifiCorp's use of OHVs to maintain power transmission and distribution lines is expressly authorized or otherwise officially approved. The definition of “necessary tasks” in the glossary should be expanded to include power delivery operation and maintenance (O&M) activities.

Comment: Areas proposed for closure to OHV use within several SMAs including the Pennock Mountain Wildlife Habitat Management Area, the Wick-Beumee Wildlife Habitat Management Area, the Encampment River Potential Wild and Scenic River, the West End of Ferris Mountain, and within the Jeb Canyon ACEC will prevent PacifiCorp from being able to access PacifiCorp's transmission and distribution lines and poles. PacifiCorp must have access to its transmission and distribution lines via mechanized vehicles for routine operation and maintenance, emergency situations (power outages), and for conducting line patrols. Our employees need to be able to do emergency work anywhere it is necessary, at any time. Access via over-the-snow vehicles is also necessary in the winter months. PacifiCorp employees would use existing roads and vehicle routes in these areas and minimize the

amount of necessary over land travel. Off road vehicular travel for “necessary tasks” should be allowed in all non-WSAs for line maintenance and construction purposes.

Response: Refer to the Glossary section for the definition of “OHV.”

Comment: Our members have seen vast landscapes in the West transformed into a network of roads and drill pads where oil and gas development has occurred, leaving heavy impacts against wildlife habitat. This should not be allowed in the crucial unspoiled areas of the Great Divide.

Response: The Draft RMP/EIS evaluated a range of alternatives recommending a balanced approach that ensured protection of resource values, while allowing opportunities for mineral and energy exploration and production. The management actions contained in the Proposed RMP/FEIS allow minerals and energy exploration and production, while protecting other resource values.

Comment: It [country road system] services every town and every place in Carbon county. And we are charged by that road system to improve it as the needs increase in Carbon County. And I encourage that to be a continuing process in the EIS, in this plan.

Response: County road maintenance is not the responsibility of the BLM. All roads created in association with federal actions will be analyzed in the same manner as any other project. Any construction of roads and facilities in conjunction with project development must follow Onshore Order 1, and any and all stipulations attached to the permit for that project. Once roads become unnecessary or obsolete, they will be reclaimed.

Comment: 4-166 Several significance criteria are listed. First, it is not clear these significance criteria tie in specifically with the goal for transportation shown on page 2-61 (accommodate access needs and manage access impacts). Second, the assumption that transportation and access is a “support program” and not an “environmental component” is unclear and needs explanation. What do these terms mean? It seems to be implied that transportation and access are totally passive activities that are driven by other activities. While roads are usually constructed to meet the needs of other activities they have massive environmental impacts. Does BLM agree this is true? Why or why not? Roads may well have the greatest environmental impacts of any activity undertaken on BLM lands, potentially harming soils, water quality, and wildlife, among other things. Does BLM agree with this statement? Why or why not? Does being a “support program” play any role as to what the environmental consequences of roads may be? Is BLM implying that it has no or little authority to regulate roads or even prevent their construction? As a result of its analysis, BLM can only conclude that the environmental impacts of its transportation and access program will “improve access opportunities within the RMPPA” and vehicle access will be limited in the Encampment River WSR. This says nothing about what the environmental consequences of road construction may be. What impacts does BLM anticipate will result from road construction under the RMP relative to air, water, soils, and wildlife? To the extent BLM claims these impacts are “imbedded” in other impacts analyses, this fails to meet BLM NEPA duties because a reader and BLM cannot make any analysis of what the impacts of this discrete, well defined form of environmental impact may entail. Does BLM agree with this statement? Why or why not?

Response: The impact analysis for road development has been updated in the RMP FEIS (Section 4.17). Roads in the RMPPA are typically built to meet the needs of other activities, such as oil and gas development. The impacts of these temporary or permanent roads would be addressed in greater detail in the NEPA documents associated with specific projects. Where possible, negative impacts are mitigated by proper construction and placement of the roads and drainage structures (BLM Manual 9113) (Appendix 13).

Comment: Section 19, T12N, R90W appears to mostly be in Colorado. Isn't this outside the jurisdiction of this plan? [Page A7-9, Section: Bureau of Reel. Withdr.]

Response: Section 19, T12N, R90W, splits at the state border. The document addresses only that part of the section that is in the State of Wyoming and must be addressed.

Comment: Appendix 6 does not appear to have a criteria giving special consideration to BLM parcels that provide public access. In many parts of the area covered by this plan, accessible public lands, even small acreages provide a critical resource to the hunting public and contribute to the WGFD's ability to manage populations for objectives. We ask that a criteria providing protection or at least added scrutiny for accessible public lands be added. We would define accessible public lands as those lands accessed via public road, waterway or included within lands leased by the WGFD for its Private Lands Public Wildlife program. We would also include any lands within any WGFD Habitat Management Area, Public Fishing Area or any other BLM lands adjacent to lands owned by the Department or on which the Department holds an access property right. A6-6

Response: Legal access would be maintained with the new landowner. This is a BLM policy.

Comment: The Rawlins Resource Management Plan should adopt a “No net increase in roads” policy.

Response: This concept is being considered on a project-by-project basis.

Comment: pp. 4-166; 4.14; Methods Comment: It should be stated in the FEIS that oil and gas companies operating in the western portion of the RMPPA work among themselves, other stakeholders and the BLM to ensure that roads are maintained in a manner that minimizes impacts on other resources. This coordinated effort has had a positive effect on the transportation system within this portion of the RMPPA and should be acknowledged as a proactive measure in mitigating impacts:

Response: Road maintenance is developed on a case-by-case basis.

Comment: We are concerned about adequate planning and route flexibility for future energy infrastructure, including pipelines, gathering systems, access roads and lease utilities. The planning process must avoid significant route limitations and road closures, instead formulating management alternatives which enable operators and the BLM to make project-level decisions balancing access and impacts from energy activities. This issue is closely linked with regional wildlife, local socio-economic and recreational access issues. This is particularly important for the Rawlins Area given the emerging coalbed methane development in the Atlantic Rim and Seminole Road areas.

Response: All road and facility projects will be analyzed in the same manner. Any construction of roads and facilities in conjunction with project development must follow Onshore Order 1, and any and all stipulations attached to the permit for that project. Once roads become unnecessary or obsolete, they will be reclaimed.

Comment: APPENDIX 26: Page 1: Criteria for Closure 7th bullet: “Greater sage-grouse...winter habitat and leks.” Comment: Closure of roads through sage-grouse winter habitat is not mentioned anywhere else in the draft RMP; this should be deleted. We have already commented on the confounding terms used to describe the winter habitat intended for protection. Various terms are used including winter concentration area, winter use area, and winter habitat. We have suggested a term more precisely defining the limited severe winter relief habitat, those used during the periods of deepest snows.

Response: Appendix 26 identifies criteria that will be considered for spatial and temporal road closures or limited access. Specific criteria are used on a case-by-case basis when identified, and there may be situations in which roads located within sage-grouse habitat and leks may be closed.

Comment: The BLM discusses the road network in the planning area at several points in the DEIS. See DEIS at 3-89. Yet Map 1-4, which is the only map of the road system presented in the DEIS, shows only state and federal highways over which the BLM has no jurisdiction. And yet nowhere in the DEIS is presented a full accounting of the present location of high-standard, improved gravel roads that spider web the planning area. This information should be in BLM's possession, since the construction of roadways and the granting of rights-of-way for road alignments on public lands rests exclusively with the BLM. In addition, this information can be readily derived from recent statewide aerial overflights and satellite images that are readily available to the BLM. Therefore the BLM has no excuse for not gathering and presenting this important baseline information in the DEIS. In addition, the preferred alternative proposes allowing OHV use within 300 feet of existing roads. DEIS at 2-30. The BLM should perform a spatial analysis of what proportion of the RMPPA is encompassed by this 300-foot buffer around existing routes.

Response: Refer to Map 1-4 and page 3-89 for changes. Map 1-4 shows the interstate, U.S., and state highways; county roads; and major roads within the RMPPA. This is not a complete inventory of roads, but these are the major arteries.

Comment: A minimum number of roads should be constructed in areas I order to minimize surface damage. The road system should be designed before development by all companies in order to minimize surface damage.

Response: Generally, a minimum number of roads are used to access a developed area. Well locations are not planned out in advance of development, because the developers don't know the limits of the productive area up front. They establish new well locations as they go along, based on what happened at nearby wells that they have information on.

Comment: The current network of roads is already much more extensive than is necessary to facilitate public use and other transportation needs within the planning area. The fact that only ten percent of the planning area currently qualifies for wilderness status is a strong indictment of the BLM's failure to prevent the proliferation of developed roadways. With this in mind, the agency's proposal to convert two-track roads to developed roads in cases where two-tracks are experiencing substantial erosion (DEIS at A13-9) is a solution that does more harm than good. In stead, when two-tracks are subject to substantial erosion, the BLM should first determine whether the route serves a purpose, and consider reclamation as a first alternative, and the installation of water bars to mitigate erosion as a second alternative if the route has a valid purpose.

Response: The section titled "Undeveloped Two-track Roads" in Appendix 13 is correct as written. This section provides the BLM with the flexibility to consider minor repair of two-track road erosional problems or to consider upgrade of a necessary two-track road to a designed road surface. The previous paragraph further states, "As funding is available, unnecessary two-tracks should be reclaimed."

Comment: ES Page 9, Page 2-10 et al OHV The DEIS is inconsistent with respect to how geophysical exploration will be managed. For example in the summary and the Minerals section at 2.3.7, it is stated, "vehicular use for necessary tasks (as defined in the Glossary), such as geophysical exploration, including project survey and layout, is subject to off-highway vehicle (OHV) designations. [Emphasis added] Exceptions may be necessary to protect other resources on a case-by-case basis following environmental analysis." Comment First, the above sentence is unclear since it infers that an exception to the

requirement may be necessary to protect other resources. Second, on the same page, under 2.3.8, it is stated, “Off-road OHV use would be allowed for necessary tasks except in WSAs and specific SMAs.” Given the fact that geophysical exploration is subject to the terms and conditions of BLM’s permitting process, it is unnecessary to require the activity to comply with recreational OHV uses, especially those that do not require prior BLM approval. In particular, geophysical exploration is subject to analysis under the National Environmental Policy Act, during which relevant mitigation measures are imposed. Therefore, geophysical activities must be eliminated from the OHV requirements.

Response: Refer to the Glossary section for the definition of “OHV.” No vehicular travel is allowed off designated roads in the Adobe Town Wilderness Study Area.

Comment: Rights-of-way are often part-and-parcel of energy development projects, as well as many other activities. All provisions in the Mineral Leasing Act and FLPMA must be adhered to relative to rights-of-way to help ensure environmental protection. We specifically request that the EIS address several issues. The issue of the impact of power lines on birds and bats should be addressed, particularly with regard to raptors. Electrocutions are one negative impact of power lines, and electrocutions could violate the Migratory Bird Treaty Act and Bald Eagle Protection Act, not to mention the ESA. The RMP should have provisions to ensure these laws are not violated if rights-of-way are granted, as well as provisions that specify thorough monitoring and the penalties that will be imposed by BLM for failure to comply. Perhaps just as importantly, power lines change the “structure” of habitat, which may create favorable conditions for some species but be unfavorable for others. For example, there is evidence that ferruginous hawks, which are becoming rare, can be placed at a competitive disadvantage to other raptors when power lines create perches in otherwise open habitat. Likewise, the increasingly imperiled sage grouse can be further threatened if raptors are provided hunting perches in habitat occupied by sage grouse. The EIS fails to consider these issues, or make provisions for sufficient mitigation of the impacts of right of way structures.

Response: Power lines are generally buried to eliminate impacts to wildlife. Larger lines that cannot be buried are placed in existing corridors and are required to install raptor antiperching devices on each pole. In rare cases, where power lines are located outside existing corridors, BLM still requires the raptor antiperching devices on each pole.

Comment: I would like to see a road obliteration policy. When the gas people have no need for a road, take it out.

Response: In accordance with Onshore Oil and Gas Order #1, when a well is plugged and abandoned, the road is also reclaimed, unless the road is used to access other wells or approved projects.

Comment: The roads created by exploration activities can provide access to otherwise difficult to access areas and closed areas. The BLM complains that they cannot keep the public out of various areas once accessed for exploration. While we understand the problem, it is wrong to close areas to exploration, not because of the actual impacts of exploration, but in fact due to the inability of the BLM to enforce laws governing the general public. The BLM position on this issue is lame at best, and self-serving of those regulators with personal agenda’s at worst. If public access is really the problem, then BLM can really solve the problem by enforcing the laws regarding public access already on the books.

Response: BLM is unaware of complaining about not being able to keep the public out of certain areas. Roads that limit or restrict public use have signs posted indicating their intended use. You are correct; BLM is responsible for enforcing closures and other forms of access restraints on roads across public lands. A discussion of current activity can be found in Section 3.14 of the Rawlins RMP FEIS.

Comment: Road access to culturally significant sites is another concern that the draft RMP failed to satisfactorily address. Without the tribes' collaboration in identifying Native American cultural resources, there is not logical way these resources can be protected by established road-access regulations and perimeters. Tribal involvement and endorsement of all road-access requirement is needed to assure not only protection from energy development but also from artifact vandals and thieves.

Response: Protective measures for culturally sensitive Native American resources are established through consultation and coordination with the appropriate Native American tribes. Native American consultation is an ongoing process that began before the current RMP revision and will continue after the new RMP is completed. See updated text in the Rawlins FEIS, Appendix 5, Cultural Resource Management, regarding Native American consultation.

Comment: A13-9 The statement that undeveloped two-track use will be minimized directly conflicts with the requirements of IM 2004-194.

Response: With this being a BMP, the right-of-way holder would be responsible for the upgrading or repair of the two-track.

Comment: [Page 2-25] Under Lands and Realty Table. Why not designate the Utility/Transportation corridors as having less mitigation and more disturbance area tolerances so as to encourage the use of the corridors and have the e areas outside the corridors more restrictive. That way a proposal that uses the corridors are given the advantage over those that do not, potentially a faster approval and easier to construct.

Response: In designating corridors, the process will be to consider the width, avoidance areas, type of use, habitat, etc.

Comment: A34-1 It is stated a right-of-way corridor criteria determination would be undertaken after the ROD. is signed. But if this is true, what is the purpose of Maps 2-2 and 2-30 to 33? Don't they already provide for where rights-of-way exist and where they are to be avoided? Will the "determination" be on a project by-project basis or field office wide? In our view, Maps 2-2 and 2-30 to 33 should be viewed as providing the guidance on all future rights of way.

Response: In designating corridors the process will be to consider the width, avoidance areas, type of use, habitat, etc.

Comment: Our paramount concern continues to center around the direct and indirect impact that BLM land use restrictions/prescriptions have on our ability to develop the State's subsurface. For instance, within the boundaries of the Adobe Town WSA and the Adobe Town fringe area, there are 2,600 state-owned mineral acres, 2,560 of which are under federal surface, and 1,960 acres of which are under lease. One lease in particular, within the WSA boundary, has received two administrative lease extensions of one year each because of the lessee's inability to gain access to the lease across federal lands. Therefore, we expect that the final EIS will in no way prohibit the BLM from working with this office to resolve any state land access issues as required by the Federal Land Policy and Management Act.

Response: BLM thanks you for your comment. However, the content of the comment is not within the scope of the Rawlins RMP planning process.

Comment: Maps 2-33 and 2-50: Maps 2-33 (Utility/Transportation Systems Avoidance Areas, Alternative 4) and 2-50 (Visual Resource Management, Alternative 4) are strikingly similar. The VRM Class II area is identical to the utility/transportation avoidance areas. As stated above, a great deal of

Wyoming's highways and Interstate 80 are within Class II VRM areas. If highways and 1-80 are included in Class II VRM, T&D lines should also be allowed as well or the areas should be designated as a Class III or above. Constructing, operating and maintaining T&D facilities within Utility Avoidance Areas must be allowed. Reasonable and prudent mitigation measures, and BMPs (especially if better defined by BLM), will reduce impacts to below significance levels (page 4-192).

Response: After careful consideration of the alternatives, the BLM has changed its decision to define the area within 2 miles or the visual horizon of contributing segments of historic trails as VRM Class II. The protections afforded to historic trails from the NHPA, supplemented by the management actions in the FEIS, will adequately protect the contributing setting of trails. For a description of specific BMPs that will be used in protecting the setting of NRHP-eligible properties, please see updated text in the Rawlins FEIS, Appendix 5, Cultural Resources Management.

Comment: There is no travel management plan

Response: BLM has deferred the travel management plan until after the RMP is completed. The travel management plan will be developed within 5 years after the publication of the RMP.

Vegetation

Comment: Roads are also a key problem for introduction of noxious weeds that could equate to an untold amount of lost habitat for wildlife.

Comment: In the RMPPA, halogeton is strongly associated with both road development, active drilling sites, and abandoned and “reclaimed” well sites, in some cases constituting almost pure stands on reclaimed wellpads. [mgmt. practices to control halogeton need to be identified in the FEIS]

Response: Section 4.15, Methods of Analysis, in the FEIS includes the assumptions for analysis used in the analysis of environmental consequences. The assumptions were that weeds are an inevitable outcome of any surface disturbance, even with careful extraction and preservation as well as appropriate and timely reclamation. Appendix 13, Best Management Practices for Reducing Non-Point Source Pollution, includes a section on reclamation and the BLM's responsibilities and opportunities to reduce weed infestations. Appendix 31, RFO Noxious Weed Prevention Plan, includes practices that will be implemented as part of any surface disturbance proposal.

Comment: Prior to development approval, site should have a revegetation plan with funding. In addition, there should be a plan with long-term funding for control and management of potential noxious and invasive weeds.

Comment: Reclamation should take into account the vegetation community extant on the site prior to development, and re-create that mixture and distribution pattern of plants when reclamation occurs.

Response: See Appendix 13 for information on reclamation practices, use of native, weed-free seed, weed control, time frames, and other related information.

Comment: 2-107 The discussion here makes it clear that noxious and invasive weeds are spread to a large degree by factor within BLM's control-principally livestock use and road construction. Thus, these “vectors” should be addressed specifically in the RMP and provisions made to reduce the effects of these activities. For example, BLM could require directional drilling be used to the maximum extent possible as a means to reduce road construction, and thus weed infestation.

Comment: Would strongly support this alternative, however, would only support 16,400 acres of treatments if they were justified and agreed upon by the Department, from the standpoint of DPC, and were not negatively contributing to an adverse cumulative impacts situation. [Page 4-184, Section: 4.15.5, Para.1]

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: DEIS. Chapter 4, Page 169, Final two bullets. The DEIS states that “...permit holders; ROW holders; and mineral lease, claim, and permit holders will continue to treat noxious and invasive weeds and pests on public land as stipulated within their permits and authorizations. Weed and pest control will be carried out in coordination with the appropriate county weed and pest control district and owners of adjacent property...” The Service is concerned that the use of insecticides could reduce the availability of prey for insectivorous fish, birds (young sage grouse), mammals (bats), amphibians (Wyoming toads), and/or reptiles. The Service suggests including in the DEUS an appendix which describes historic and future authorized use of insecticides on Bureau administered lands within the RMPPA. Such an appendix should include types of insecticide used, frequencies for use, and locations of use. Additionally, an

appendix such as this would prove useful in the preparation of the Bureau's BA which will assess the effects of Bureau-authorized activities to listed species.

Comment: Standards should be issued preventing the spraying of insecticides in sensitive sage grouse habitats during periods where these habitats are occupied.

Response: Currently, there are no future authorized insecticide uses or historic uses to report. If they are requested, they would be analyzed under a separate NEPA document for the site-specific project.

Comment: Vegetation analyses. There are many statements throughout the DEIS about the large amount of dead and decadent sagebrush in the resource area. However, there are no data or maps presented to show where this is a problem. Including these data would be helpful for illustrating this problem. Also, analyses of vegetation treatments or loss should be done by specific habitat type for proper comparisons, not in general categories such as "sagebrush". The total number of acres in the resource area should not be compared to specific impacts to estimate the percentage of area disturbed. Presenting data on impacts in this EIS would also help the public identify and understand what a significant impact is.

Comment: APPENDIX 19-"Numerous drought-related shrub diebacks and die-offs are present in most of the western portions of the RMPPA." **Comment:** We recommend that these areas be mapped and inventoried. BLM must also specify whether such acreage is to be subtracted from the proposed short- and long-term fire acreage goals.

Response: The level of detail you describe is not available for the entire RMP, and as appropriate or as needed, it is incorporated into activity plans on a site-specific basis.

Comment: Suggest that BLM seek funding to attempt eradication of small and LARGE weed infestations. The problem is never going to go away if large areas are merely controlled and thereby maintained as seed sources which will serve to continue infesting surrounding areas. Groups such as the Southeast Wyoming Cheatgrass Partnership need to be supplied with the funding and administrative support needed to conduct large eradication efforts. Cheatgrass, in particular, has the potential to completely take over very large areas of the RMPPA with resulting catastrophic effects on wildlife and the agriculture industry. [Page 2-62, Section: Mgmt. Goals, Para.5] complicating control efforts. [Section: Mgmt. Goal]

Comment: BLM administrators need to establish as a goal the acceleration of the completion of the EIS that will allow aerial application of herbicides effective in treating cheatgrass and other noxious and invasive plants. Delaying these regulatory efforts continues to allow these plants to spread and further

Response: BLM thanks you for your comment. However, the content of the comments is not within the scope of the Rawlins RMP planning process.

Comment: Page 4-55; Special Status Plant Species; 2nd full paragraph: **Comment:** Intensive management of other disruptive activities (i.e. those that take more than one hour) relative to the protection of a plant is unnecessarily restrictive. No scientific justification has been provided for this bizarre timing restriction and it should be deleted.

Comment: Page 3-109, §3.15.7, the "Ute ladies' tresses", **Comment:** The current spelling of this plant's name as used by the FWS, WYNDD, and the Nature Conservancy is "Ute ladies'-tresses" and should be changed throughout the document.

Response: Thank you for your comment and your interest in the Rawlins RMP. All editorial, document content, and document adequacy suggestions will be reviewed, considered, and applied to the RMP FEIS, where appropriate.

Comment: A24-1 This mitigation plan is based on “no net loss” of population size or habitat quality. Thus, for this plan to work, BLM must have some measures of current population size or habitat quality, otherwise no measurement of whether there is a net loss can be made. What is the “baseline” we are working from for these parameters? The information on pages 3-109 to 110 does not seem to provide this baseline. The information on pages 4-183 to 185 does not seem to say anything about whether population sizes or habitat quality are likely to suffer a net loss; the statement that “There would be no significant impacts to special status plants or their communities” is just an assertion. On page 4-177 it is stated that “avoidance” (no reference is made to Appendix 24) will apparently be used to mitigate impacts related to oil and gas development (what about other resource uses?), but the monitoring appears to be limited to “locations” of special status plants, which would not necessarily provide any measure of habitat quality and whether it is suffering a net loss. Does BLM agree that potential habitat is a component of “habitat quality” for special status plants? Why or why not? What is it doing to document potential habitat and to protect this habitat?

Response: See corrected text in Appendix 24.

Comment: [Page 3-106, Sec. 3.15.4, Vegetation Health.] The paragraph on wild horses (1) fails to mention the populations of wild horse that far exceeded AMLs and (2) understates the impact of these excessive wild horse populations upon the vegetation. The impacts of wild horses upon resources in the planning area contributed to the need for the consent decree. These facts need to be mentioned in the final analysis.

Response: See updated text in Section 3.15.4 concerning wild horse numbers and their impacts on vegetation.

Comment: APPENDIX 19-“Extended drought has promoted a rapid invasion and establishment of invasive plant species (especially halogeton) throughout most of the western portion of the RMPPA.”
Comment: We recommend that BLM revise the RFO Noxious Weed Prevention Program as described in Appendix 31 to account for this serious issue.

Response: Appendix 31 includes BMPs recommended for reducing the expansion of weeds and can be applied to any activity.

Comment: Control of noxious weeds and invasive species is imperative. Noxious weeds and invasive species should be eliminated to promote a healthy rangeland environment. Priority should be native, weed-free communities as explained in Alternative 3.

Response: Control of noxious and invasive species is proposed under all alternatives. See Table 2-1 under vegetation management goals.

Comment: pp. A31-1, Surface Disturbance, 5”bullet
Comment: This bullet requires high pressure cleaning of construction equipment prior to moving into relatively noxious free areas. While we do not necessarily oppose this item, it should be noted that to make this requirement effective it needs to be applied to all land users. Besides construction equipment, other land users are capable of transporting weed species into an area. For these reasons, the requirements should be expanded beyond just construction projects.

Response: Appendix 31 includes BMPs recommended for reducing the expansion of weeds and can be applied to any activity.

Comment: Under “Summary”, pg. 4-52, where are the 5000 to 7000 acres that would remain untreated for weed control, and why would they remain untreated?? Please provide the authority for the BLM to leave 5-7 thousand federal acres out of a program to control weeds.

Response: See updated text in Section 3.15.5 and 4.7.5 in the RMP FEIS concerning weed treatments.

Comment: The BLM must not be complacent about the prospects of cheatgrass invasion, as this event would be a disaster for wildlife, ecosystems, and the agriculture industry as well. Thus, 2 years’ rest from grazing following fire should be a mandatory standard in the new RMP.

Response: Wyoming BLM policy is described in Appendix 19 for vegetation treatments, including prescribed fire. National BLM policy for grazing deferment following wildland fire is assumed in Section 1.4, which requires 2 years’ rest. The impact analysis in Section 4.7.1 also assumes these policies.

Comment: Control of noxious weeds and invasive species is imperative. Noxious weeds and invasive species should be eliminated to promote a healthy rangeland environment. Priority should be native, weed-free communities as explained in Alternative 3.

Response: Control of noxious and invasive species is proposed under all alternatives. See Table 2-1 under vegetation management goals.

Comment: [Page 1-10, Vegetation Management.] The DEIS refers repeatedly, and appropriately, to the Federal Land Policy and Management Act, which states BLM will manage the public lands and their various resources so that they are used in the combination that will best meet the present and future needs of the American people. In FLPMA, Congress declared that it is the policy of the United States that BLM should manage the public lands in a manner that will provide “food and habitat for fish and wildlife and domestic animals”. In most instances, the DEIS recognizes the requirement to provide habitat and forage for the first two, and forgets the third. A typical example is found in the wording for Issue 7: Vegetation Management, which discusses the requirement to provide habitat for wildlife, but fails to mention the requirement for BLM to provide habitat and forage for domestic animals, as well. All areas of the DEIS should be reviewed to ensure the FLPMA policy of managing to provide food and habitat for fish and wildlife and domestic animals (emphasis added) is correctly discussed.

Response: See updated text in FEIS concerning domestic animals.

Comment: Some portions of the planning area will receive considerable and extensive surface disturbance due to O&G and CBNG development activities. To meet the goal of healthy rangelands, healthy watersheds, fugitive dust reduction and reduce the proliferation of invasive weeds, we recommend the BLM fully disclose and reassess its interim stabilization and reclamation standards under the preferred alternative. It is unclear from a review of the document what the BLM will consider to be the reclamation and interim stabilization standards or BMPs. We understand this is not an activity assessment, but clearly a description of the overall policy and standards should be appended to the document to guide future planning, (such as was done with the PRB CBM EIS). Appendices 1 and 13 provide some overview of current reclamation practices and policies; however, there is no clear description of the minimum reclamation standards that will be expected for future operations under the preferred alternative. This office urges the BLM and other land management agencies to reassess BMPs for topsoil salvage and storage, interim stabilization, backfilling and contour operations, topsoil

application, appropriate seed mixtures, need for fertilization and erosion control. We would be willing to work with you on a workgroup to re-examine BMPs for these and lands.

Response: See the updated reclamation plan in FEIS.

Comment: Page 3-108, last paragraph “Perennial weed species, such as knapweeds, spurge, and saltcedar, usually spread regardless of management methods.” Comment: We acknowledge these weed species are difficult to control; but a statement of this nature can be taken to mean that weed control will be directed only to those species that are “easy” to manage because some will spread regardless. This rationale defeats the purpose of IPM and the dedicated efforts of many who attempt to halt the spread of undesirable weed species on Wyoming's ranges.

Response: See clarified text in FEIS, Section 3.15.5, on weed control.

Comment: Treated acres of noxious and invasive plants under this alternative are totally inadequate for proper control or eradication. [Page 4-178, Section: 4.15.2, Para.2]

Response: See the preferred plan, Section: 4.15.5, for recommended increase in treatment of weeds.

Comment: In the definition of “Canopy”, please include grasses in this definition: Grasses contribute to the “canopy” of rangelands.

Response: See the updated definition of “canopy” in the Glossary.

Comment: Page 3-92 The total acreage shown in Table 3-33 adds up to 11,657,242 acres. It is stated throughout the DEIS that the RFO includes approximately 11.2 million acres, this results in a discrepancy of about % million acres. Comment: Ensure consistency within the DEIS.

Response: See updated text in RMP FEIS, Section 3.15.2. Table 3-33 has been deleted.

Comment: The sagebrush category (p. 3-93) totals about 4.2 million acres and is described as “communities frequently dominated by big sage in the desert to mountain foothills”. Comment: The generic term “big sage” is dated and is out of place in a contemporary document of this nature. The big sagebrush complex is actually composed of several distinct sub-species and two varieties. The other 5 sagebrush taxa described in Table 3-33 are distinct species and are not “big sage”.

Response: BLM agrees that the term “big sage” is outdated. Table 3-33 has been deleted, which contained this usage. Please refer to Section 3.15.2.6 for description of sagebrush communities within the RMPPA.

Comment: Would disagree that “Insufficient acres of vegetation treatments would allow invasion and proliferation ...” The contrary may very well be true. Although many treatments may be valuable and necessary, the threat the disturbance poses to the spread and/or establishment of noxious and invasive vegetation needs to be recognized. [Page 4-107, Section: 4.13, Para. 6]

Response: Vegetation treatments, in this instance, refer to chemical treatments for weeds.

Comment: Pages 4-260/261, Vegetation Management: Comment: This paragraph states “Under all RMP alternatives, impacts to these communities would not be considered significant;” the discussion goes on to disclose that oil and gas provides the greatest impact but states (second full paragraph) “Overall, the amount of disturbance is negligible compared with the amount of total vegetative resource within the

CIAA...” How then on Page 4-255 (second paragraph) can it be stated that reduction in forage removal will have a significant impact on livestock grazing operations?

Response: The criteria for significant impacts are described for both livestock grazing and vegetation and are different because of the resource values versus uses that are described.

Comment: Page 3-99, “Basin big sagebrush often increases in density and cover with poor livestock management and interruptions in the fire cycle.” Comment: The lead sentence of this paragraph states that, “Basin big sagebrush is not a palatable forage.” According to Rosentreter (2000)[see footnote 7] and others, this is a true statement. However, midway in the paragraph it is stated that, “Basin big sagebrush often increases in density and cover with poor livestock management and interruptions in the fire cycle.” Because Basin big sagebrush is not browsed by wild ungulates and livestock don’t actively seek out Basin big sagebrush as a food item, it seems reasonable to assume it would increase in density regardless of livestock management. If BLM is inferring that Basin big sagebrush is increasing in density as a result of a lack of competition from other plant species (removed by poor grazing practices), it should be scientifically demonstrated. Because Basin big sagebrush and Wyoming big sagebrush often occur in the same area, it appears that Basin big sagebrush with a fire return interval of 30-75 years (last sentence) tends to burn more often than its nearby Wyoming big sagebrush neighbors with a fire return interval of 25-100 years (last sentence of preceding discussion of Wyoming big sagebrush/Grassland). In a wildfire situation this seems unlikely.

Response: See updated text in Section 3.15.2., Basin Big Sagebrush Shrubland.

Comment: There are a variety of vegetation restoration methods that can be used to restore and promote a natural range of native plant communities in the planning area. BLM must prohibit methods and projects that do not achieve the objective of restoring and promoting a natural range of native plant communities. Consequently, we believe BLM should establish the following standards in the RMP: [see comment letter]

Response: The recommendations you provide are evaluated as appropriate or as needed and are incorporated into activity plans on a site-specific basis.

Comment: These comments also apply to: Page 2-8 (livestock management actions common to all alternatives), Page 3-26 (Livestock Grazing), page 4-44 (Livestock Grazing, Impacts Common to All Alternatives), and Appendix 8 – “Wyoming Standards for Healthy Rangelands.” The BLM must manage vegetation to sustain properly functioning ecosystems on public lands in order to comply with 43 CFR 1701(a)(8) (protection of ecological and environmental values); 43 CFR 1712(a) and 43 CFR 1702(c) (multiple use and sustained yield) and other statutory mandates. The referenced “standards” for healthy rangelands provide only conceptual and qualitative guidance regarding the ecological conditions in which vegetation is to be maintained. The RMP does not provide numerical standards and monitoring procedures. Instead, the document stipulates, “quantifiable resource objectives and specific management practices to achieve the standards will be developed at the BLM Field Office level ... The objectives shall be reflected in site-specific activity or implementation plans as well as in livestock grazing permits/leases for public lands.” Appendix 8 is intended to provide methods to monitor and assess Wyoming Standards and Guidelines for Healthy Rangelands. However, Appendix 8 is only a reprint of the Wyoming Standards, plus a brief list of general types of monitoring data that may be collected. Appendix 8 does not identify specific monitoring procedures, nor does it provide quantitative objectives for acceptable resource conditions. The current version of statewide “standards” does not contain sufficient direction to assure the management concepts therein are properly interpreted and consistently administered. Rangeland standards and monitoring procedures are planning level considerations that must be quantitatively defined and incorporated into the RMP. Otherwise, these considerations become

discretionary and open to interpretation, leading to inconsistent administration. This has been a huge problem, even when more quantitative standards were applied. The Rawlins Area RMP needs to include quantitative rangeland standards and objectives, and specific monitoring procedures to guide project- and permit-level planning. The current system of monitoring has not provided the types of data needed to document that management criteria are being met, or to demonstrate they are not. BLM has a responsibility to demonstrate to the American public that resources on BLM-administered lands are being managed in accordance with public laws. Finally, the grazing management provisions should provide for adjustable stocking rates and season of use to maintain properly functioning ecosystems during various environmental conditions including drought cycles. [Page ES-12, section: Vegetation]

Response: See updated text in Table 2-1, Section 3.7, and Section 4.7. Most of the level of detail you request is incorporated into activity plans and management criteria on a site-specific basis to maintain or achieve resource objectives.

Comment: Need to reference where the Gibbon's Blue-tongue site is with a map or legal description. [Page 2-15, Line/Para: 2]

Response: Only threatened and endangered species are mapped on public land.

Comment: Disagree that low seral stage stream vegetation is an indicator of PFC. Loss of woody vegetation is well known to decrease stream bank stability, fish hiding cover, increase stream temperature, etc. Agree that managing aspen for earlier seral stages is a good approach and a tactic that should be aggressively pursued. [Page: 4-179, Section: 4.15.3, Para. 7]

Response: Although woody vegetation is an important component in many riparian systems as you describe, and having mixed-age, diverse species of shrubs and trees is a good example of a desired plant community, in some situations it may take many years to restore such communities. In many grassland riparian plant communities as well as in willow-waterbirch riparian plant communities, grasses and sedges often provide for stable and proper functioning condition in these sites, whether or not woody plants are present or at their desired levels.

Comment: Suggest emphasizing the progressive loss of aspen and the recent explosive proliferation of cheatgrass within the RMPPA in the segments entitled broadleaf communities – aspen and noxious and invasive weed management (See comments 1 and 3 of this section). [Page 3-90, Section: 3.15.2.3 3.15.5]

Response: See Section 3.5 and 3.15.2 for aspen forest status description; see clarified text in Section 3.15.4 for cheatgrass.

Comment: Page 3-110, The DEIS claims BLM and WGFD are responsible for managing a wide array of wildlife and associated habitat types, including sensitive plant species located within the RMPPA...

Comment: The Wyoming Game and Fish Department manages wildlife populations - the BLM manages habitat and sensitive plant species. This split management role continues to be a dilemma for both agencies. § 3.19.3 (p. 3-141) correctly identifies this division of responsibility and this should be stated at this point, not 31 pages later. It is also appropriate in a document of this scope to acknowledge the management role of the Forest Service within the RMPPA in respect to sensitive plants. USDA-FS Region 2 covers a sizeable portion of the planning area but no mention is made of sensitive plants in Region 2 (primarily the Medicine Bow National forest). Note that several of the BLM designated sensitive species occur at higher elevations normally associated with FS lands (e.g., Weber's Scarlet Gilia occurs at 8,500 to 9,600 ft.). If emphasis is placed on listed plants outside of the Rawlins BLM Management Area (i.e., Ute ladies'-tresses in Converse, Goshen, and Niobrara Counties) and the

Colorado Butterfly Plant in Laramie and Albany Counties, it is appropriate to mention special status plant species that occur within the RMPPA, regardless of agency jurisdiction. Consistency throughout the DEIS is necessary.

Response: See updated text in Section 3.15.8, BLM Wyoming State Director’s Sensitive Species List for Plants.

Comment: The fire interval of 35-75 years cited here for Basin Big Sagebrush seems short. Is there data to support this short cycle, and is it specific to habitats within the RFO? [Page 3-99, Section: 3.15.2.6, Para 6]

Response: BLM monitoring of a prescribed burn, conducted in 1989 in a basin big sagebrush community along Muddy Creek, indicates a 40 to 50–year recovery interval to preburn canopy cover levels (50 to 60 percent). However, sites with low herbaceous cover often seed back in more quickly with big sagebrush and return to preburn canopy levels in as little as 20 to 30 years (personal observations of wildfires and prescribed burns).

Comment: Page 3-98, “The GAP data represent sagebrush as black sagebrush, mountain sagebrush, and Wyoming big sagebrush plant cover types, which are mapped collectively as sagebrush on Map 3-10. These three categories cannot readily be partitioned into the species of sagebrush actually found in the RMPPA, which species are discussed below.” The section goes on to describe Basin big sagebrush (p. 3-99) in 3 paragraphs. **Comment:** In actuality, WY-GAP data does not show Basin big sagebrush present in eastern Sweetwater, Carbon, Albany, or Laramie Counties (see Land Cover Map Analysis report that accompanies the GAP report (Merrill et al. 1996)[see footnote 5]. In fact, LandSat imagery classified Basin big sagebrush as a primary cover type on only 44 ha and 1,651 ha as a secondary cover type for the entire state for a total of 1,695 ha (4,187 acres). In contrast, Beetle and Johnson (1982)[see footnote 6] calculated that Basin big sagebrush occupies about 5,000 square miles in Wyoming (3,200,000 acres). This major discrepancy illustrates that the LandSat cameras were incapable of differentiating the spectral signature of the various *Artemisia* taxa and caution is advised when using this data, even on the regional scale for which it was intended. BLM needs to amend the above discussion in accordance with our comment.

Response: The GAP data presented were the best data available at the time to depict general types and abundance of vegetation communities across the entire RMPPA. You very clearly depict one example of the lack of accuracy in using these data for other than broad-level descriptions. The following section of 3.15.2 of the FEIS, beginning with “Forest and Woodland Communities,” is used to more accurately describe (primarily from professional experience in this area) the plant communities, site characteristics, and species found in the RMPPA.

Comment: The Summary Comparison of Impacts, under Impacts on Livestock Grazing (page 2-83), states under Alternative 4, “Impacts under this alternative would be similar to those under Alternative 3, except vegetation and noxious and invasive weed treatment would be slightly reduced.” The comparable section under Alternative 3 includes the following statement, “The loss of up to 30,000 AUMs resulting from a lack of predator control and the increase of wild horses in the Lost Creek HMA would create a significant impact.” Based on the narrative in Chapter 4 (page 4-208), the statement on page 2-83 appears to be in error. If it is not in error, WSGA strongly objects both to the removal of predator control and to the increase in wild horses in the Lost Creek HMA.

Response: See clarified text in FEIS, Table 2-1, concerning predator control and wild horses.

Comment: Increase the target limit to provide opportunity for adequate acres of vegetation treatments to create the diverse plant community seral stages needed to decrease the potential for wildland fires. [Page 4-28, Section 4.4.2, Para.3]

Response: The target is increased under the other alternatives for comparison to the continuation of existing management.

Comment: Invasive plant species pose incredible threats to Western landscapes; it is irresponsible to encourage further invasions and landscape degradation by emphasizing development and industrialization over careful extraction and preservation. Invasive species are adept at colonizing undisturbed lands and in disturbed areas they are unstoppable.

Response: See updated text in Table 2-1, Detailed Comparison of Alternatives, Vegetation Section, for weed treatment priorities.

Comment: NEPA requires the BLM to consider strong and effective mitigation measures for noxious weeds in at least one alternative; to this point, the agency has failed to do so.

Response: See Appendix 31 for BMPs that are common to all alternatives.

Comment: The Draft EIS Fails to Rigorously Explore and Objectively Evaluate Adequate Preventative/Mitigation Measures for Noxious Weeds BLM must consider weed-free gravel requirements and the pressure-washing of heavy equipment to prevent the spread of weed seeds that may be embedded in mud on vehicles.

Response: See Appendix 31 for BMPs that are common to all alternatives.

Comment: I disagree that areas can be and are successfully rehabilitated after they are impacted by industrial extractions. In the realm of human activities, roads are especially effective in reducing patch size and landscape continuity as well as acting as conduits for exotic species invasions. Moreover, anticipated increases in traffic will inhibit existing recreational opportunities for people seeking to use the landscape in less destructive ways. Future management plans should heavily weight the importance of maintaining large segments of the landscape intact, and they should emphasize the preservation of the natural landscape and its attendant ecosystem processes.

Response: The BLM manages public lands for balanced multiple use. The term “multiple use” as defined in FLPMA means “the management of the 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.” Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (see Summary of Changes between RMP DEIS and FEIS at the beginning of each chapter in the FEIS). The RMP DEIS and FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure that resource values are protected, while allowing for acceptable levels of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents.

Comment: [I Encourage BLM to consider the following points] Streamside vegetation must be protected and priority must be give to limiting damage to habitat.

Response: Appropriate actions are implemented on allotments that are not in compliance with the Wyoming Standards for Healthy Rangelands (Section 2.4 and Appendix 8). Such measures may include, but are not limited to, the following: reduction of permitted AUMs, modified turnout dates, development of range improvements, shorter grazing periods, growing season rest, the use of riparian pastures and/or exclosures, implementation of forage utilization levels, and the use of livestock conversions.

Comment: This paragraph under summary does not seem to make sense. What is referenced in regard to the 5000 to 7000 is not clear. [Page 4-52, Section 4.7.5, Para.9]

Response: See clarified text in FEIS, Section 4.7.5, Summary; the acreage is compared with Alternative 3.

Comment: While bitterbrush is important to mule deer, and may be selected as forage, sagebrush makes up 70% of the winter diet for mule deer on Powder Rim (DeBolt 2000). Sagebrush may be an important component of over-winter survival for mule deer. [Page 3-98, Section: 3.15.2.6, Para 2]

Response: See updated text in Section 3.15.2 in the RMP FEIS. BLM agrees that sagebrush is a very important component of winter mule deer diets, and in this region, both sagebrush and bitterbrush are both considered key species to manage to benefit and support mule deer populations.

Comment: We ask that BLM ensure the RMP provides for compliance with Executive Order 13112, which established requirements and procedures Federal agencies are to adhere to relative to invasive species.

Response: Executive Order 13112 is included in Section 1.4.

Comment: Page 4-217 Vegetation Management: fourth paragraph; Comment: The discussion of treatments in upland areas and the need to divert livestock and wildlife away from treated riparian and wetland areas only applies if access is still allowed to the treated areas. Often BLM does not allow grazing in treated areas for a few seasons until vegetation is reestablished and can withstand grazing pressure. Short of the use of non-BLM standard fencing how does the BLM intend to keep wildlife out of treated areas?

Response: This paragraph discusses upland treatments as a way to improve the palatability of these sites to reduce grazing and browsing use of adjacent riparian habitat and to expand cover and composition of desirable woody species. Precluding wildlife use of upland treatments is not usually feasible; instead, treatments are made large enough so that wildlife use is distributed at a light level across the treated area, which normally does not affect reaching resource objectives for the specific plant community.

Comment: The EIS should fully analyze the extent of the invasive species problem in this area, the causes, and options for both restoration and prevention in the future. It does not currently fully do this.

Response: See updated text in FEIS, Section 3.15.5, for the occurrence of invasive species in the RMPPA. The options for prevention are listed as BMPs in Appendices 13 and 31.

Comment: We believe BLM should consider whether it is more effective and efficient, ecologically and economically, to simply avoid certain ground-distributing activities so as to ensure the requirements of the Executive Order are complied with. For example, not building certain roads or authorizing certain oil

and gas drilling activities may be a very cost effective, as well as ecologically effective, means to prevent the spread of invasive species, and the RMP should establish guidance as to when avoidance of ground-disturbing activities is preferred and appropriate. Similarly, the effect of ground disturbance resulting from rangeland management actions, including grazing itself, on invasive species status should be fully considered, and again the RMP should establish standards as to when these activities may be inappropriate due to invasive species considerations.

Response: The BLM manages public lands for balanced multiple use. The term “multiple use” as defined in FLPMA means “the management of the 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.” Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (see Summary of Changes between RMP DEIS and FEIS at the beginning of each chapter in the FEIS).

Comment: The BLM should conduct surveys to determine the location and characteristics of native plant communities and rare or special status species. The survey results should be presented in the EIS, and the RMP should establish standards for protecting native plant communities and rare or special status species. BLM's grazing regulations and the PRIA establish that native species and plant communities are to be given preference over non-native species and communities (whether invasive or intentionally created), so the RMP should establish standards to ensure these requirements are met.

Response: BLM is involved in ongoing inventories of all vegetation communities, which are used to develop management actions for their protection or restoration. See Appendix 8 and Section 1.4 for relevant statutes, limitations, and guidelines.

Comment: To prevent invasive species dominance, and to favor native species and plant communities over non-natives, we make the following specific requests: [see letter]

Response: The recommendations you provide are evaluated as appropriate or as needed and are incorporated into activity plans on a site-specific basis

Comment: Suggest that acreages of invasive species control could be greatly increased through support of the Southeast Wyoming Cheatgrass Partnership, of which the BLM is a member. Cheatgrass needs to be identified as the most common and widespread of the invasive weeds and subsequently addressed with all the resources available to the participating agencies. Less than a very aggressive approach to eradicating/controlling this species could have catastrophic ramifications for both wildlife and the livestock industry. [Page 4-52, Section: 4.7.5, Para. 5]

Response: See clarified text in FEIS, Section 3.15.5, regarding cheatgrass priority.

Comment: Page 3-109, paragraph 2, “...Section 6840 of the BLM Manual sets guidelines for Special Status Plant Species...” **Comment:** The BLM has many manuals and there is no such thing as a Section 6840. However, there is a BLM Manual 6840 - “Special Status Species Policy” that sets guidelines for Special Status Plant Species. This Manual is not referenced in the Literature Cited section.

Response: See corrected text FEIS on manual name and the Literature Cited section.

Comment: [page 4-43 last paragraph] Vegetation Management Actions should always consider using livestock as a tool to improve forage production. BMPs used to create grazing plans can be incorporated so that there is no net loss of AUMs.

Response: Changes in AUMs would be determined on an allotment basis and would be developed in conjunction with permittees, interested parties, and the BLM-based site-specific analysis.

Comment: [page 4-170 4.15 Vegetation (noxious and Invasive Weeds)] SERCD believes that the opportunity for invasive species will increase due to extensive mining and road construction activities. To mitigate this impact SERCD believes the BLM should enforce heavier fines and penalties on Developers to ensure compliance with both the BLM's and Carbon County's Weed Plans. SERCD believes that weed control should begin with the start of any project and be considered a success only when after two years of monitoring has shown no new weeds be considered a successful plan.

Response: Fines and penalty amounts are beyond the scope of this document. See Appendix 13, Reclamation section, for reclamation policy.

Comment: Table 3-34 indicates that halogeton is most dangerous during the fall and winter seasons. Comment: Actually the plant is most dangerous during the spring and summer months when it is actively growing. The amount of soluble oxalates in halogeton varies by season, locality, and part of plant eaten [see footnote 9]. As a halophyte, halogeton makes excessive amounts of oxalic acid in response to excessive uptake of sodium ions [see footnote 10]. While halogeton is growing, oxalates are highly concentrated; 17 to 30 percent of dry plant weight is soluble oxalates [see footnote 11]. During the winter season, the plant is dead.

Response: Halogeton is poisonous year-round, whether it is alive or dead. Domestic sheep use in the RMPPA is primarily made during the months of November through May, with most deaths from Halogeton occurring during the winter, when snow cover reduces forage availability. Halogeton is commonly found in disturbed areas along roads, on drilling pads, and soil piles, where it may be the dominant species and more readily available to grazing sheep.

Comment: pp. 3-109; 3.15.7.2 2nd sentence reads: "...It [Ute ladies'-tresses}. is a perennial orchid known in western Nebraska, southwestern Wyoming..." Comment: The closest Ute ladies'-tresses population to southwestern Wyoming is in eastern Utah along the Green River. It is not known to exist in southwestern Wyoming. The four known Wyoming populations are located in Converse (BLM), Goshen (State), Laramie (private land), and Niobrara Counties (private land). Note that only Laramie County has any lands managed by the Rawlins BLM. The other three counties are within the Casper BLM Field Office management area. It is suggested that the location of the species be corrected to be in central and southeastern Wyoming.

Response: See corrected text in FEIS, Section 3.15.7, southwestern to central and southeastern.

Comment: pp. 3-109; The 2nd paragraph states: "...Section 6840 of the BLM Manual sets guidelines for Special Status Plant Species..." Comment: The correct reference should be BLM Manual 6840 - "Special Status Species Policy" that sets guidelines for Special Status Plant Species. This Manual is not referenced in the Literature Cited section and should be. for the FEIS

Response: See corrected text in FEIS, Section 3.15.7, concerning manual name and Literature Cited section.

Comment: pp. 3=108; Table 3-34 Comment: This table indicates that halogeton is most dangerous during the fall and winter seasons. Actually the plant is most dangerous during the spring and summer months when it is actively growing. During the winter season, the plant is not alive.

Response: Halogeton is poisonous year-round, whether it is alive or dead. Domestic sheep use in the RMPPA is primarily made during the months of November through May, with most deaths from Halogeton occurring during the winter, when snow cover reduces forage availability. Halogeton is commonly found in disturbed areas along roads, on drilling pads, and soil piles, where it may be the dominant species and more readily available to grazing sheep.

Comment: Once again, mere control of noxious and invasive weeds is not an adequate objective. Only seeking to control weed infestations will ensure that these plants will stay in the ecosystem forever and will continue to degrade the environment and be a drain on personnel time and money. [Page 2-95, Section: Impacts on Vegetation, Para. 3 Alt. 1]

Response: Some weed species, like leafy spurge and houndstongue, once established, cannot be eradicated in all instances, and control then becomes the primary objective.

Comment: pp. 3-108; 2nd paragraph reads: “The current untreated, weed-infested acreage in the RMPPA is estimated at about 20,000 acres (not including areas infested with cheat grass). However, the RMPPA has not been mapped for noxious and invasive species, thus the number of acres needing treatment has not been established.” Comment: If mapping of invasive and noxious weed populations has not been done on the RMPPA, how (or who) would be able to estimate the acreage needing treatment on 11.2 million acres? The estimate of 20,000 acres may be 80,000 or 200,000 acres and will remain only a guess until the infested areas are located, identified, and mapped. It is important that the County Weed and Pest Control Districts, UW Extension, Wyoming Dept. of Ag., WDOT, USFS, and other county, state, and federal agencies work together to map noxious and invasive species which can be provided to BLM.

Response: The BLM shares information on inventory of weeds with other agencies and individuals. Inventories, conducted by BLM and other agency personnel and individuals, were used to estimate the acreage needing treatment.

Comment: Suggest BLM address aspen retention as a vegetation management goal. By their own admission, in the Forestry section of the RMP, these tremendously important habitats are being lost to conifer encroachment and disease, however, the BLM makes not mention of any concerted retention effort. The loss of the regions aspen communities will be far more damaging to native wildlife and livestock than will be the combined loss of Ute ladies tresses, blowout penstemon and Colorado butterfly plant. [Section: Mgmt. Goal]

Response: See Section 2.4 Vegetation, Management Actions Common to All. Aspen stands would be managed to increase distribution and improve seral structure.

Comment: pp. 4-267; Unavoidable Adverse Impacts, 2nd paragraph, 3rd sentence Comment: The statement is made that “Permanent conversion of vegetative resources to other uses such as transportation or energy development reduces the quantity of vegetation resources.’ It is recommended that the term “energy development” be deleted because it is not a permanent conversion of land as discussed above.

Response: See clarified text in FEIS, Section 4.22, and updated the Glossary for definition of “long-term.”

Comment: This statement appears in conflict with the statement in comment 7 above. However, it is probably more consistent with good PFC management than the above mentioned strategy. BLM needs to clarify the approach being proposed by their seral stage management. [Page 4-180, Section: 4.15.3, Para.4 Line 1]

Response: See clarified text in FEIS, Section 4.15.3, for discussion on seral stage.

Comment: pp 3-105;.3:1.5:4; Vegetation Health Comment: Despite drought conditions that have severely impacted Wyoming, especially the southwestern and south-central counties, there is no mention of it in the RMP DEIS as a factor in vegetative health. This is somewhat surprising considering the amount of attention this issue has received from the Western Governor's Association, the State of Wyoming and numerous federal agencies (including the White House) all working toward developing drought management and contingency plans. Extended drought has the potential to alter every alternative in this document, including (but not limited to): • Fire: The planned role of fire will need to be seriously curtailed and the BLM must address it in some type of overall plan. • Drought related shrub die back and die offs: This situation exists in many of the western portions of the RMPPA. The areas should be mapped and inventoried along with having BLM specify whether these areas (acres) be subtracted from the proposed short- and long-term fire acreage goals. • Understanding the effect on reclamation and revegetation plans: BLM must respond to this situation in terms of effects on mitigation timing/planning, monitoring, and reclamation bond release. • Invasive plant species: Extended drought has promoted a rapid invasion and establishment of invasive plant species (especially halogeton) throughout most of the western portion of the RMPAA. This serious issue must be addressed in the present RFO Noxious Weed Prevention Program as described in Appendix 31. • Air Quality Impacts: Extended drought may seriously impact visibility standards, Wyoming and National ambient air standards (esp. PM2.5 and PM10) particles, regional haze standards, increased erosion rates and decreased watershed qualities, just to list a few possibilities. BLM must analyze how smoke from the periodic late-summer and fall wildfires in the California chaparral ecosystem or large catastrophic local wildfires (i.e., Yellowstone -1988) further elevates airborne pollutants in the RMPPA and affect planned activities (i.e., prescribed burns, vehicle traffic on unpaved roads) given wind patterns favor smoke drift to the RMPPA.

Response: Drought is a variable to be incorporated into all management scenarios, many of which you have described. However, it is a natural component of the environment within the RMPPA, and not a factor that BLM has some control over, like grazing or other vegetative treatments. The level of detail you request is incorporated as needed into activity plans on a site-specific basis.

Comment: Page 3-10, “The current untreated, weed-infested acreage in the RMPPA is estimated at about 20,000 acres (not including areas infested with cheatgrass). However, the RMPPA has not been mapped for noxious and invasive species, thus the number of acres needing treatment has not been established.” Comment: If mapping of invasive and noxious weed populations has not been done on the RMPPA, how (or who) would be able to estimate the acreage needing treatment on 11.2 million acres? The estimate of 20,000 acres is simply a guess (not even an estimate) and will remain only a guess until the infested areas are located, identified, and mapped. It seems odd, given the high profile status of undesirable plants and current technology, that the County Weed and Pest Control Districts, UW Extension, Wyoming Dept. of Agriculture, WDOT, USFS, and other county, state, and federal agencies have not mapped this growing threat. We suggest this data does exist and would be available for BLM's use. Cheatgrass and halogeton invasion have the potential of creating an ecological disaster in portions of the RMPPA.

Response: The BLM shares information on inventory of weeds with other agencies and individuals. Inventories, conducted by BLM and other agency personnel and individuals, were used to estimate the acreage needing treatment.

Comment: [page 2-83 Summary Comparison of Impacts (Impacts on Livestock Grazing)] Under Alternative 4 SERCD believes that any reduction to weed control, even slight is unacceptable.

Response: There is a proposed increase in weed control from the current level of 2,800 acres average per year to 25,000 acres in the Proposed Plan (Section 4.15.5).

Comment: pp. 3-108; The DEIS states: “Perennial weeds species, such as knapweeds, spurge and salt cedar, usually spread regardless of management methods.” Comment: It is acknowledged the difficulty that exists in controlling these weeds species; however the statement infers that regardless of the techniques used, some will still spread. BP makes a concerted effort to control these species and such statements do not lend credibility to the efforts underway to halt the spread of undesirable weed species. We would recommend the sentence be revised to acknowledge the efforts that Integrated Pest Management Programs can have in controlling these species.

Response: See clarified text in FEIS, Section 3.15.5, on weed control.

Comment: In Appendix 24, the BLM acknowledges the difficulties in mitigating impacts to Special Status plants because of specific habitat requirements or lack of necessary biological information. Most of the common techniques, such as compensation mitigation or habitat restoration, have proven largely unsuccessful.” This discussion also acknowledges that any impacts to rare plant populations or habitat should be considered significant: “...because of the difficulties of providing successful mitigation options, impacts to special status plants are considered less than significant only if no net loss of population size or habitat quality results.” This section finishes by quoting direction from the BLM Manual (6840): “BLM shall not carry out any actions that would cause any irreversible or irretrievable commitment of resources or reduce the future management option for the species involved.” Unless lands are withdrawn from leasing and protected from disturbance, the BLM cannot meet this directive.

Response: See changes in FEIS, Table 2-1, and Appendix 24.

Comment: The BLM clearly acknowledges the impossibility of effectively mitigating impacts to rare plants (Appendix 24; see discussion in next section), but at the same time, proposes no real protective measures. The agency then concludes that impacts to these species will not be significant under the preferred alternative. This is not a valid conclusion. Effective protection is offered by none of the alternatives.

Response: See changes in FEIS, Table 2-1, and Appendix 24.

Comment: The most cumulatively significant effect on vegetation management is from livestock grazing. This needs to be acknowledged in the RMP. Livestock grazing impacts forage availability, plant vigor, plant species composition and diversity, plant community structure, soil and root structure, nutrient cycling (cows don’t die and recycle on the rangeland), and ecological processes such as fire intervals. [Page 4-261, Section: Vegetation]

Response: See updated text in FEIS, in the Cumulative section concerning impacts on vegetation from grazing.

Comment: Cumulative effects on aspen management. A cumulatively significant effect that has not been discussed is the impact of current management practices (fire suppression, livestock over utilization, lack of active management) on regeneration and vigor of aspen stands throughout the RMPPA. Aspen clones are an exceptionally important habitat for wildlife. [Page 4-260, Section: Vegetation]

Response: See updated text in FEIS, in the Cumulative section concerning aspen management.

Comment: Page 3-109: “It [Ute ladies'-tresses] is a perennial orchid known in western Nebraska, southwestern Wyoming...” Comment: The closest Ute ladies'-tresses population near southwestern Wyoming is actually in Daggett County Utah, along the Green River. It is not known to exist in southwestern Wyoming. The four known Wyoming populations are located in Converse (BLM), Goshen

(State), Laramie (Private), and Niobrara Counties (Private) [see footnote 12]. Note that only Laramie County has any lands managed by the Rawlins BLM. The other three counties are within the Casper BLM Field Office management area. The correct term is “southeastern Wyoming”.

Response: See corrected text in FEIS, southwestern changed to central and southeastern.

Comment: The DEIS approves oil and gas leasing, which will commit certain rights to lessees. In the process, stronger options for protection of values such as Sensitive species are eliminated from consideration. By opening areas to leasing, but deferring analysis of impacts to the project stage, the BLM is not analyzing the direct and cumulative impacts of its decisions on Sensitive species.

Response: See Appendix 24 for the process that would take place at the project level.

Comment: None of the alternatives provides concrete direction for protection of Sensitive plant species, especially with regard to oil and gas development. Management decisions for sites with Sensitive plants and potential habitat are to be considered on a “case-by-case” basis, or addressed through “intensive management,” which does not guarantee protection, as explained above. At one of the public meetings, I discussed this issue with a representative of the company that contracted to prepare the DEIS, who claimed to be an expert on NEPA compliance. I was told that impacts to Sensitive species are to be analyzed at the project level. With decision-making deferred to project analysis, it is impossible to assess impacts of any of the alternatives on Sensitive species.

Response: See Appendix 24 for the process that would take place at the project level.

Comment: The discussion of impacts of alternatives (Chapter 4) includes some protective measures for Special Status plant species. For example, proposed ROWs (Right of Way) would be rerouted to avoid populations (p. 4-172). Although Special Status Species include Sensitive species by definition, the remainder of this paragraph suggests that the agency is proposing protection only for federally listed species. In addition no protective measures for Sensitive plant species are included in Table 2-1 (summary of management actions by alternative). Similar confusion was found elsewhere in the document. In other cases, Sensitive species are to be “intensively managed” or decisions made on a case-by-case basis (for example, in discussion of actions common to all alternatives, p. 12-15).

Response: See Table 2-1, Special Status Species, Row 1, and clarified text in Appendix 24.

Comment: Page 4-264: Third paragraph, eighth line: “the impacts to vegetation are not anticipated to be significant as a result of the adaptability of wild horses and the small amount of vegetation actually removed by development activities.” This statement coupled with our comments on Vegetation Management (pg 4-260/261) further support our question regarding the finding of significance in the “Livestock Grazing” section, pg 4-255.

Response: The criteria for significant impacts are described for both livestock grazing and vegetation and are different because of the resource values versus uses that are described.

Comment: The plant resources of BLM land west of Wyo 789 and south of I-80 is not very well documented. There may be another *Yermo xanthocephalus*, out there, and the chance of discovery is about the same as destruction in some location construction. The same with archaeological sites. Hopefully, what is lost will be made up by a few good discoveries, but we will never know what is lost.

Response: Plant resources in this area are inventoried on either a broad basis or on a species specific/habitat basis. Gibbens identified and collected plants in the Powder Rim region in 1967–68, and

BLM personnel did the same over the entire area during the early 1980s when conducting soil-vegetation mapping. In both cases, duplicate samples were sent to the Rocky Mountain Herbarium for identification and to expand their database for the State of Wyoming. Defined inventories have been completed by Dorn (*Penstemon gibbensii*) and Wyoming Natural Diversity Database (WYNDD) (cushion plant communities and Sandhills) and would be the most likely method to continue in the future, as specific needs or habitat of interest are identified.

Comment: Page 3-108, last sentence of paragraph one; "Prickly poppy and mullein are two newly discovered invasive species that are increasing in localized areas." Comment: •mullein should be mullein. •There are three species of "mullein" that occur in Wyoming and two are introduced species [see footnote 6]. Common mullein (*Verbascum thapsis*) is very common in southeast Wyoming. Moth mullein (*Verbascum blattaria*) is also widespread in the western U.S. Turkey mullein (*Eremocarpus setigerus*) is native to the Pacific Coast and would be considered invasive in Wyoming. It is unclear which mullein species of the 3 was recently discovered. •Prickly poppy is more correctly referred to as annual pricklepoppy (*Argemone polyanthemus*). The plant is native to the Rocky Mountain area and is quite common throughout Wyoming.[see footnote8]

Response: See corrected text in FEIS, Section 3.15.5, on species and their presence

Comment: pp. 3-92.3-93; 3.15.3, Table 3-33 total acreage shown in Table 3-33 on page 3-92 adds up to 11,657,242 acres. It is stated throughout the DEIS that the RFO includes approximately 11.2 million acres, this results in a discrepancy of about 1/2 million acres. Table 3-33 should be corrected for the FEIS

Response: See updated text in RMP FEIS, Section 3.15.2. Table 3-33 has been deleted.

Visual Resources

Comment: 2-64 BLM rightly recognizes that it will be very difficult to fully regulate visual impacts in the railroad checkerboard area. Pages 3-113, 4-187. But in comparing Map 4-50 to a map of land ownership (Map 1-2), it appears a ' significant amount of Class IV designation would extend to areas where BLM owns large tracts of the surface estate. We believe BLM should carefully evaluate whether it is appropriate to designate any areas where BLM is the dominant surface owner as Class IV. If it is assumed many areas in the checkerboard will not be subject to strong BLM control relative to visual quality, which BLM repeatedly states is the case, in our view this increases the need to fully protect visual resources in areas where BLM is the dominant surface owner. What does BLM think about this proposition?

Comment: [Page 3-111] Statement: "The RMPPA has been inventoried using BLM VRM classification system." When was this done and is the study available?

Response: The VRM inventory was completed several years ago. See VRM Inventory Classes Map, Map 2-51. Also see VRM Management Classes, Maps 49-50 and 52 and Appendix 25, Visual Resource Management, in RMP FEIS.

Comment: Another VRM Class 2 management area is being proposed outside the Adobe Town WSA. This would not be consistent with BLM guidelines for wilderness study areas. Creation of this VRM Class 2 is simply not required to maintain the wilderness values of Adobe town.

Response: See VRM Management Classes Map in FEIS.

Comment: The BLM notes that "The highest-quality scenic views in the RMPPA are the WSAs, particularly the Ferris Mountains and Adobe Town WSAs because of their unique geological formations." DEIS at 3-111. While BLM notes that the highest-quality visual resources in the planning area are Adobe Town and the Ferris Mountains, the BLM has not made the effort to provide baseline data on the viewsheds of these visual resources of paramount significance. And yet, despite the importance of the Adobe Town viewshed, the BLM has not mapped and presented this viewshed in the DEIS to determine what areas require protection of visual resources in order to prevent further degradation of wilderness

Response: The viewsheds within the Ferris Mountain and Adobe Town WSAs are protected by VRM Class I designations and by the Interim Management Policy (IMP) for Lands Under Wilderness Review. There is no directive to protect the viewsheds outside the boundary of the WSAs and, therefore, no requirement to do viewshed analyses within or adjacent to the WSAs. Congress looks within the WSA boundary for suitability for designation as wilderness. See H-8550-1.

Comment: In the management of communication sites, the BLM should require the construction of towers that have low visual impact.

Comment: BLM needs to identify a greater proportion of the planning area to manage for high-quality visual resources, to accommodate the ever-increasing demand for beautiful landscapes and wide-open spaces.

Response: Ideally, communication sites would be mitigated for location off the top of ridges, but they require unobstructed transmission, so they must be located atop hills. Other techniques to reduce visual impact are not effective in many situations (i.e., when the impact is above the skyline and there is insufficient vegetative cover to hide communication structures), particularly if safety coloration is required.

Comment: Page 4-187, section 4.16.5, paragraphs 2 & 3: “Portions of the checkerboard and intermixed land ownership areas would be designated VRM Class III because of the lack of BLM control on adjacent private property... This alternative would solve some VRM conflicts associated with the checkerboard and isolated BLM parcels within VRM Class II. It also creates VRM Class IV in heavily developed areas where it is appropriate.” Comment We are concerned that BLM does not address the possibility of lease stipulation medications on the maps for the Preferred Alternative 4. BLM should ensure the maps and statements such as these coincide in the document.

Comment: [Maps 2-49 and 2-50] The maps show 2 and 5 mile bands around the trails as VRM Class II and nearly everything else as Class III. Have studies been performed to determine there are not Class II areas within the extensive Class II areas? It is our understanding that VRM classifications are determined by analysis, not declaration.

Response: VRM management classes are based on the visual resource inventory as well as on management considerations for other uses. VRM management classes may differ from VRM inventory classes, based on management priorities for land uses (H-1601-1, Appendix C, page 11, I. Visual Resources). Management priorities for much of the RMPPA call for multiple use, including mineral development, in preference to preservation of existing landscapes. Please see the updated VRM Management Class Map. VRM is not just a stipulation; it is an RMP-level management decision. Impacts on adjacent nonfederal lands do not dictate a reduction in VRM class on federal lands. The document states BLM has no control over private surface. See VRM Management Classes map in RMP FEIS. VRM in checkerboard lands has been addressed. Standard mitigations apply to all leases, regardless of the VRM Class. VRM Class II in checkerboard lands has been addressed. See Appendix 15 and the VRM Management Classes map in RMP FEIS.

Comment: Page 3-113. What is the basis for the statement, “Although visual sensitivity is clearly not the highest priority for many residents and visitors...”? Many “visitors and residents” would disagree.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: 1-9 It is stated special attention is needed to address energy development, with consideration being given to a number of values that could be negatively affected. To this list should be added visual quality, and this concern should be carried forward throughout the EIS.

Comment: Current management practices are doing too little to maintain and protect scenic areas and visual resources; indeed, the current rate of degradation is unacceptable; using present methods at six times the pace of drilling and bulldozing will cause catastrophic visual resource degradation in developed areas of the RMPPA.

Response: See updated Appendix 15, Best Management Practices, and Section 3.16 in the RMP FEIS.

Comment: You should exclude from the RMP visual criteria from any temporary use such as seismic data acquisition.

Comment: Page 3-113., Visual Resource Trends and Issues: The citation for support of these statements is an e-mail message from Krystal Clair, Rawlins Field Office Recreation Specialist to the contractor responsible for preparing the draft EIS. Without more information regarding the underlying analysis supporting these statements, they are little more than speculation and/or personal opinion and have no place in an objective analysis of this nature. BLM should revise the document to either provide support for the statements or delete them. In particular, APC believes the following statements should be deleted,

“the need for more effective mitigation on seismic projects, the need for more effective mitigation on all wells and it has proven difficult to change existing mitigation precedents”

Response: Some seismic projects have had long-term visual impacts. Repeatedly driving vehicles over the same route destroys vegetation and creates new vehicle routes, which are often visible for several miles. Oil and gas developments have very strong visual impacts caused by not only the facilities but also by the road network developed to access them. All activities with the potential to alter the visual setting must be mitigated to meet the criteria of the VRM classes designated in the RMP. See H-1601-1, Appendix C, page 11, I, Visual Resources, and updated BMPs in FEIS.

Comment: In order to comply with the laws and regulations, the visual, qualities of all lands within the RMP area must be inventoried, and VRM classifications for such lands must be analyzed in the EIS. We submit that all areas proposed for wilderness designation, whether citizen-proposed or otherwise, must be designated as VRM I “to preserve the existing character of the landscape.” This would also be true for any visual ACECs identified during the RMP revision process. Visual sensitivity within these areas is very high; the visual quality of these areas is of deep concern to thousands of individuals and local and national organizations; and any action that would impact visual resources within these areas would be extremely controversial and typically unnecessary or undue.

Comment: ES-12 Visual Resources. Comparison to old RMP. The document does not reveal either statutorily required or scientifically justifiable reasons for these large changes from less restrictive VRM classes to more restrictive. It appears to be a simple way of further restricting oil and gas and grazing activity without specific reasons. Class I Old RMP New RMP % Change 51.03 33165 67730 Class II 160640 589530 72.75 Class III 3582195 2275080 36.49 Class IV 224000 619140 63.82 Total Acres 4000000 3551480 Recommendation: Review the new designations by evaluating the changes to determine either statutorily required or scientifically justifiable reasons for these large changes from less restrictive VRM classes. Make sure that they do not restrict oil and gas activity in the high potential areas.

Response: VRM Class I is assigned to those areas where a decision has previously been made to maintain a natural landscape. This includes wilderness areas and other congressionally designated and administratively designated areas where decisions have been made to preserve a natural landscape. BLM has applied Class I to WSAs to support WSA management objectives. Class I VRM acreage has not changed. The use of GIS has updated the acreage within the same boundaries. See VRM Management Class Map in FEIS.

Comment: 4-185 to 186 In this section BLM should specifically analyze the impacts of oil and gas development on visual resources. Oil and gas development will clearly be one of the most prominent impacts on visual quality, so it should receive specific discussion. Otherwise the BLM and the reader are left with no clear understanding of the impacts and consequences of this dominant activity; its effects are merged into some nebulous discussion of “facilities” which is a totally unilluminating term.

Response: See revised Section 4.16 in FEIS.

Comment: Strongly disagree with wind power development within the viewshed of the North Platte River. This would severely degrade the recreational value of the area. [Page 4-160, Section: 4.13.20.1, Para.4]

Response: The cited text acknowledges the impact wind power adjacent to the river would have on recreationists.

Comment: pp. 3-113; bullet #7 Comment The statement is made that: “The need for more effective mitigation on all wells.” This statement is included without any supporting analysis or information and as such we recommend that the BLM delete this statement from the final document. The need for this bullet is not necessary considering the fact that the mitigation must be “cost effective and realistic” as described on page A1-5 of this document. Regardless, industry will continue to implement Best Management Practices and new technology where applicable to minimize our impact on sensitive resources.

Response: Please see Appendices 15 and 25.

Comment: P. 4-186 Second paragraph (top of page): This paragraph implies a mosaic created by fire is good for some but bad for others. Similar arguments can be made for energy development where the mosaic created by facility construction also short term, and the seeding and reclamation accelerates the healing of disturbance. Some hot fires many require 30 to 50 years for vegetation to reclaim naturally; whereas induced reclamation with oil and gas development can show results in less than five years.

Response: The text (Section 4.16.2) explains that prescribed fire usually has short-term visual impacts, depending on several variables. Impacts from energy development are an entirely different matter. The visual impact of facilities, pads, and roads is long-term.

Comment: It is BLM policy that visual resource management (VRM) classes are assigned to all public lands as part of the Record of Decision for RMPs. The objective of this policy is to “manage public lands in a manner which will protect the quality of the scenic (visual) values of these lands.” BLM Manual MS-8400.02. Under the authority of FLPMA, the BLM must prepare and maintain on a continuing basis an inventory of visual values for each RMP effort. 43 U.S.C. § 1701; BLM Manual MS-8400.06. In addition, NEPA requires that measures be taken to “...assure for all Americans...aesthetically pleasing surroundings.” Once established, VRM objectives are as binding as any other resource objectives, and no action may be taken unless the VRM objectives can be met. See IBLA 98-144, 98-168, 98-207 (1998). The RMP must make clear that compliance with VRM classes is not discretionary, but currently the EIS does not make that clear.

Response: See VRM Inventory Classes/VRM Management Classes, Map 2-51. There are no requirements for a specific percentage in a RMPPA to be designated VRM Class I or II. VRM management classes are based on the visual resource inventory as well as management considerations for other uses. VRM management classes may differ from VRM inventory classes, based on management priorities for land uses (H-1601-1, Appendix C, page 11, I, Visual Resources). Management priorities for much of the RMPPA call for multiple use, including mineral development, in preference to preservation of existing landscapes. Determining the VRM management areas takes into account both the inventories as well as the management goals. Refer to Appendix 15 for BLM’s BMPs.

Comment: Page 3-113, bullet 7: “The need for more effective mitigation on all wells.” This statement is included without any supporting analysis or information. Comment: We recommend that BLM delete this statement from the final document as unsupported by any information in the document. If BLM chooses to leave the sentence in the final document, PAW requests clarification as to BLM's idea of “more effective mitigation” keeping in mind that BLM recognized on page A1-5 of the Draft EIS that “mitigation must be cost effective and realistic.” Industry will continue to implement Best Management Practices and new technology where applicable.

Response: Please see Appendices 15 and 25 in FEIS.

Comment: 4-185 to 186 The summary on page 4-187 is totally unhelpful in terms of understanding impacts. It states what VRM designations will be applied (i.e., it describes the alternative), but makes no

attempt to state whether impacts to visual quality will be significant, non-significant, etc. It states BLM will “solve” some VRM “conflicts” but doesn't explain how these problems are solved. A comparison of Maps 2-50 and 2-51 shows they are “solved” by designating areas lower VRM classes (especially Class IV where any kind of development is possible), not by managing or reducing the impacts. BLM should explain what impacts are likely to occur to existing visual conditions (regardless of what the area is designated in the RMP) given the anticipated levels of development and what the nature of the development is likely to be. BLM should be able to make a statement of what the landscape will look like if its plan is implemented (VRM classes provide no indication of what a landscape will actually look like; they only provide an indication of what will be permitted if it is desired).

Response: See VRM Inventory Classes/VRM Management Classes, Map 2-51 in FEIS. Simulations of what specific project developments may look like when constructed is done on a site-specific basis. VRM Management Classes are based on the visual resource inventory as well as management considerations for other uses (H-1601-1, Appendix C, page 11, I, Visual resources).

Water Quality, Watershed, and Soils

Comment: Ensure clean water by prohibiting surface discharge of wastewater produced from coalbed methane drilling in the North Platte River drainage and the Red Desert (instead require underground injection of wastewater), carefully regulating coalbed methane development, and ensuring that Best Management Practices for the control of water pollution are mandatory.

Comment: The low flows and wide disparity between spring flows and base flows are what keeps the Little Snake free of non-native fishes that threaten the survival of Sensitive and Endangered species, and an increase and steadying in flow amounts could lead to the invasion of this last bastion of native fishes by non-native competitors and predators. Thus, the surface discharge of coalbed methane wastewater must be strictly prohibited in the Little Snake watershed.

Comment: Wastewater should have to be injected into aquifers of similar qualities or treated to match surface water qualities. In addition, in cases where changes of temperature, flow pattern, or water properties might cause impacts to rare native fishes or otherwise threaten the viability of native species, subsurface wastewater injection must be mandatory.

Response: The impact analysis for CBNG development has been updated in Section 4.17 for the RMP FEIS. Onshore Order #7 specifies that “all produced water from federal/Indian leases must be disposed of by (1) injection into the substance; (2) into pits; or (3) other acceptable methods approved by the Authorized Officer, including surface discharge under NPDES permit. Injection is generally the preferred method of disposal.” Planning at the project level typically evaluates injection as an alternative (see Section 1.3 of the RMP FEIS). This is the appropriate level of analysis, and injection, in all cases may not meet the purpose and need for the project or be the most environmentally responsible option. The specifics at this planning level give the BLM the opportunity to accurately evaluate impacts from all these decisions, and this level of analysis is more appropriate than the management planning level for making these types of decisions. The RMP FEIS includes a range of alternatives that included restricting surface discharge in the Colorado River Basin and only allow surface discharge that met a specific BLM management goal. See Table 2-1, Detailed Comparison of Alternatives in the RMP FEIS.

Comment: P. 4-263 Third Paragraph: Implication that mineral development, and construction of livestock water developments, would deplete water from Colorado and Platte River drainages is without foundation. Many of the decisions regarding ground water and surface water are the responsibility of the Wyoming State Engineer, not BLM or private land owners. RECOMMENDATION: Clarify that the Wyoming State Engineer manages the waters in the State of Wyoming. If depletion is an issue, it will be resolved by the State Engineer, not BLM.

Comment: 2-66 Mention is made that water depletions in the Muddy Creek area would be allowed, with mitigation. What mitigation will be required? We would note that all water depletions in the Colorado River drainage jeopardize the endangered Colorado River fish species, and depletion fees must be paid to avoid jeopardy. Will part of the mitigation be to engage in consultation with the Fish and Wildlife Service and the payment of depletion fees? This is legally required for any depletion.

Response: Depletions are considered whenever a federal action is involved (i.e., a federal nexus). For depletions, this is any federal funding or the use of public resources and definitely relates to management actions with regard to federal minerals or surface lands. Some depletions may have already been considered in other planning processes (see Appendix 11 for more information on depletions). In general, the BLM determines if a depletion is likely to occur during the NEPA process. If depletions are anticipated, formal consultation with the USFWS is initiated. Most depletions resulting from oil and gas activities in the Colorado River Basin have been considered “minor depletions.” The State Engineers

Office will be actively involved in the depletion process in the North Platte River Basin in the future. Each project is considered on its own merits with regard to planning and agreements in the river basin in which it would occur.

Comment: Protect clean water by prohibiting surface discharge of wastewater produced from coalbed methane drilling in the North Platte River drainage area and the Red Desert, carefully regulating coalbed methane development and requiring “best management practices” for the control of water pollution.

Comment: As suggested in the WHA, require reinjection of produced water where appropriate in the North Platte River Basin and the Great Divide Basin to protect wildlife, recreation and agriculture. Will the BLM do so? Why or why not? Water quality is a huge concern in regards to coalbed methane (CBM) development. I'm confused about the labels for watersheds, where is the Colorado Basin in relation to the White-Yampa, North Platte or Upper Green. Where exactly will reinjection be required? Please provide analysis that states why “significant” degradation of water quality does not provide sufficient reason for requiring reinjection and state the specific location where water is likely to decline in quality and how exactly.

Response: The impact analysis for CBNG development has been updated in Section 4.17 for the RMP FEIS. All CBNG projects within the RMPPA require WYPDES permits, and the BLM actively participates in project design to ensure impacts to water resources downstream are identified, minimized, evaluated, and disclosed to the public during the NEPA process. At times conditions of the WYPDES permit will require water quality treatment before discharge to protect resources; these treatments may include reducing salts. Each proposed CBNG project is evaluated on a project-specific level. Water quality concerns are evaluated before project approval and are also regulated by WDEQ for potential contamination, regardless of the drainage basin. Projects and RFD forecasts in the Great Divide Basins indicates that the majority of new development will be conventional gas and not CBNG. The projects that have been evaluated to date are of a small scale (i.e., less than 50 wells) or involve re-injection of the water and therefore would not have surface discharge associated with the project. Extensive CBNG development projects are proposed in both the North Platte and Colorado River Basins. Under Alternative 3, the BLM considered approval of only surface discharge in the Platte and Great Divide Basins that met BLM Management Goals and prohibition of surface discharge in the Colorado River Basin. These alternatives were not selected to provide more flexibility in water disposal options under the Proposed Plan. Impacts of typical water disposal for CBNG projects are discussed in Section 4.17. Authorization of Onshore Order #7, will be considered on a project-specific basis throughout the RMPPA as projects are proposed (Appendix 11).

Comment: The effect of CBM produced water, although considered “significant” by BLM and obviously producing negative effects on stream ecosystems, is not discussed on p. 4-265 (Wildlife and Fish). Also CBM produced water is not discussed in section 4.21 or 4.22, given in Table 2-1 (p.2-73) or evaluated elsewhere. These omissions constitute a serious flaw in the EIS process, and should be corrected by providing additional information, data, and analysis.

Comment: [my concerns with the plan are] Significant degradation of water quality and accelerated soil erosion is anticipated as a result of the surface discharge of toxic coalbed methane wastewater in the North Platte valley and parts of the Red Desert, including he Great divide Basin it's self.

Response: The impact analysis for reasonably foreseeable CBNG development has been updated. and additional information has been added in Section 4.17 and Section 4.19 in the RMP FEIS. Because of the wide range of potential water disposal methods for CBNG, additional pertinent and detailed analysis will be done on a project-specific basis.

Comment: 3-139 In Appendix 11 BLM seems to indicate that oil and gas development will lead both to water production and water depletion. AI 1-8. Perhaps the oil and gas development being referred that will produce water to is just coalbed methane development but that is a bit unclear. Does BLM agree that conventional oil and gas development depletes water? We would note that both the Pinedale Anticline EIS and the Jack Morrow Hills Coordinated Activity Plan EIS recognize that conventional oil and gas development depletes water. See also 4-263 (stating depletions will occur)

Comment: A 14-1 to 7 Items 44 and 45 on page A14-6 need to make clear whether BLM will engage in consultation and ensure water depletion fees are paid as required by the Fish and Wildlife Service for the protection of the Platte River and Colorado River species.

Response: The BLM recognizes that water used for drilling, construction activities, and dust abatement for conventional and CBNG developments may deplete surface waters in the Colorado and North Platte River Basins, given the specifics of the water source for this use. Text has been added to Section 4.17.1 in the RMP FEIS to further clarify this issue. However, the BLM does not believe depletions to surface waters necessarily occur with water use for oil and gas development. Water sources are numerous in the RFO and are often from groundwater sources that are not likely to cause depletion to surface water. Given the uncertainties regarding the specific sources of water used at each oil and gas lease or the potential for operations on that lease to lead to water depletions, the BLM considers water depletions at the activity planning level (Section 1.3). At this level, operators are required to disclose their water source for operations, according to Onshore Order 1, and an assessment is made as to potential for water depletions. This assessment can involve several analytical approaches, including isotopic analyses and groundwater modeling. Whenever a potential depletion is identified during this process, the BLM initiates consultation with the USFWS and the State of Wyoming, at which time the BLM fully complies with existing intraservice BOs, law, and agreements.

Comment: While we agree with the BLM's commitment in the Preferred Alternative to require underground injection of produced water for all newly permitted projects in the Colorado River watershed, the Cow Creek pod, the sole CBM operation that currently utilizes surface discharge, has consistently contributed unacceptable levels of salt and other pollutants to the Colorado River system since it went online. In site visits on more than a half a dozen occasions over the past two years, the retention reservoir was discharging CBM effluent on every occasion (this, despite the fact that the BLM's own analysis stated that the reservoir had the capacity to handle all CBM produced water plus a 20-year flood event), and there was an evident and heavy buildup of salts in the streamcourse below the reservoir, salts which are liberated and move into Muddy Creek with each significant downpour or runoff event. Thus, for the Colorado River Basin, Alternative 3 offers the best approach, requiring subsurface injection of all wastewater, including from currently permitted projects. However, BLM notes, Impacts from surface disturbing and disruptive activities, water developments, and surface discharges from CBNG [coalbed methane] development would result in degradation of water quality beyond the designated use of receiving water bodies in the Yampa-White River subregion and potentially in the North Platte subregion (depending on development strategies). These significant impacts would occur under all alternatives. DEIS at 4-264. Because significant impacts to water qualities in the Yampa-White River subregion would jeopardize the four species of endangered native fishes, as well as three additional species BLM Sensitive fishes, this outcome is unacceptable. It points to the need for the BLM to consider (and implement) alternative(s) – particularly alternatives like the Western Heritage Alternative that minimize surface disturbance and disruption — which would not result in significant impacts to these critically important resources.

Comment: The DRMP does not adequately protect class watersheds, public health, agriculture, fisheries and water quality.

Response: A full range of alternatives were considered for the RMPPA, and the analysis for these alternatives was updated in the RMP FEIS (see Section 4.17, among others).

Comment: On page 4-201 of the DEIS, the BLM states that there will be fewer oil and gas wells that require the disposal of produced water, but on page 3-34 there is a statement that there is increased interest in developing CBM. These discrepancies need to be addressed. It seems as if BLM has understated the amount of water produced by CBM extraction and may be underestimating future CBM production.

Comment: Page 4-201: “Surface discharge of produced water would not be allowed in the Colorado River Basin, and there would be fewer oil and gas wells that require the disposal of produced water.” Comment This sentence does require clarification. There is no connection between the BLM stating, “Surface discharge of produced water would not be allowed in the Colorado River Basin” and “there would be fewer oil and gas wells that require the disposal of produced water.” Next, the sentence infers that the BLM is charged with regulating surface discharge of produced water. The BLM is not in the business of regulating water quality and therefore has no authority to prevent an Operator from discharging produced water if that Operator has an approved NPDES permit. The above-referenced sentence should be removed from the document. In the alternative, the sentence should be amended to make sense and then the BLM must acknowledge the fact that the WDEQ is charged with regulating water quality.

Response: Section 1.4 in the RMP FEIS acknowledges the primacy of the State of Wyoming to administer the Clean Water Act through the WDEQ. The RMP FEIS includes Common To All actions in Table 2-1, adds goals and objectives, and includes additional text in Chapter 3 to make this point clear. However, it should be noted that Onshore Order #7 obligates the BLM to authorize the method of produced water disposal from oil and gas activities. As part of this decision, potential impacts must be identified and disclosed to the public when this decision is made.

Comment: I urge you to ensure compliance with the Clean Water Act by prohibiting surface discharge of wastewater from coalbed methane drilling in the North Platte River drainage and the Red Desert by requiring underground re-injection of wastewater, carefully regulating coalbed methane development, and ensuring mandatory “Best Management Practices” for the control of water pollution.

Comment: Page 2-65, Alternative 4: “Surface discharge of produced water would not be approved for new projects in the Colorado River Basin. Existing surface discharges in the Colorado River Basin, approved under previous land use plans or authorizations, would be allowed to continue as long as they do not change or exceed water volumes or water quality specified during approval.” Comment This language implies that the BLM has the authority to regulate both water quality and quantity. Pursuant to the Clean Water Act, the Wyoming Department of Environmental Quality (WDEQ) is charged with regulating water quality. Under the Wyoming Constitution, the State Engineer's Office (SEO) is charged with regulating water quantity. The BLM should strike the language under Alternative 1 and replace it with the following: “Surface discharge of produced water that meets State of Wyoming standards for water quality and quantity would be allowed in the Colorado River Basin”. This language is appropriate for all alternatives and they should be revised as such.

Response: It is not up to the BLM to establish uniform criteria or procedures for disposal of CBNG-produced water. However, the BLM does analyze impacts and can require mitigation or develop alternatives to reduce impacts that have been identified during the NEPA process. Impacts can be in relation to water quality or quantity. See the updated RMP FEIS Section 1.4 for clarified language. The State of Wyoming has primacy (primary responsibility) for the protection of water quality; it issues WYPDES permits to operators considering surface discharge. The Wyoming State Engineer's Office

(SEO) has responsibility for administering water rights. It is not up to the BLM to propose methods of handling produced water. The BLM can develop alternatives to mitigate impacts related to proposed methods for handling produced water, if impacts are anticipated. For example, BLM may analyze and possibly select an injection alternative over a surface discharge alternative for a specific project. The impacts from these different alternatives and methods used for analyzing water quality are disclosed to the public and evaluated in site-specific NEPA documents for the project.

Comment: In order to restore and maintain sound watershed function, we recommend the BLM not develop any future stock pond developments that impede flows from tributary springs, seeps, and ephemeral draws that enter the Muddy Creek drainage upstream of the Weber Headcut. In addition, we recommend the BLM consider removing existing dams within the watershed for they are negatively impacting the hydrology of the upper watershed and the sensitive fish that depend on the habitats created by flowing waters.

Response: Large reservoirs that would lead to more than 1 acre-foot per year of depletion in the Upper Muddy Creek SD/MA area would not be allowed under the Proposed Plan. This action would reduce impacts from impoundments, if they were proposed, to surface hydrology in this watershed. Current impoundments in the Upper Muddy Creek Watershed are generally small and located in headwaters or in ephemeral systems and would not result in over a 1 acre-foot per year of depletion. New watershed developments below the 1 acre-foot per year would follow the current process, as described in Appendix 11, Section A11.2.1. Refer to items 44 and 45 in Appendix 14 as conservation measures that would directly address the concern raised. Under current management, impoundments could be removed, and this would not change upon release of the RMP FEIS. As ageing impoundments become unstable or lose their ability to function as originally designed, the BLM would consider all options, including dam removal, when major maintenance is proposed (Section A11.2.4).

Comment: 2-66 No mention is made of Sage Creek relative to mitigation. Yet Sage Creek is also shown on Map 2-20 as an area where there would be “management actions.” See also page 3-117 to 118. It would seem the mitigations that will be required in this area should be specified, too. Furthermore, there is no reference to the BMPs specified in Appendix 13, the water quality/depletion issues discussed in Appendix 11, or the Reasonably Foreseeable Developments and Actions in Appendix 33. These actions, mitigations, and conditions need to be factored into the water management provisions for Sage Creek.

Comment: Much of the Sage Creek drainage has similar concerns with naturally flashy flows. Recent Clean Water Act 319 projects in the drainage have addressed nearly all the roads and road crossings in the drainage to minimize erosion and sediment loading. The RMP states once again that this drainage will be intensively managed to reduce sediment loading to the North Platte River. BLM should clearly define what management plans will be implemented for these drainages of special concern. We cannot endorse plans of development that move us backwards in the restoration of waterbodies that are not currently meeting their designated uses.

Response: See Table 2-1, Actions Common to All Alternatives, in the RMP FEIS for actions specific to Sage Creek. The Rawlins Field Office has actively contributed to the effort to improve Sage Creek, mostly by working with permittees to develop grazing approaches and range improvements that would help with the overall effort. Since most of these efforts put the BLM in the role of one of the stakeholders and not the leader of the effort, it would be presumptuous to specify exactly what measures BLM could offer. The RMP FEIS commits us to “intensively manage” not just streams listed on the 303(d) list, but also to maintain management practices that contributed to the delisting in the first place. Please see the updated version of Appendix 11 in the RMP FEIS for a more detailed description of the history for Sage Creek and other 303(d) listed waterbodies.

Comment: All activities having the potential to impact groundwater quality should be identified, described and rated according to their potential to impact groundwater. We might suggest that the rating system should consider the volume of wastes and potential contaminants, contaminant toxicity and persistence in soils and groundwater, in addition to the inherent susceptibility of groundwater to impacts from releases at, or beneath the surface.

Response: The current level of analysis of the RMP is appropriate for the scale and time period considered. Please review the updated Appendix 32 in the RMP FEIS. There are many regulations and BLM policy requirements that are incorporated by reference that are designed to manage hazardous materials and practices to deal with spills in coordination with WDEQ.

Comment: Page 3-117, Section 3.17.11: Fecal coliform contamination in water bodies is a concern. A separate discussion about existing fecal coliform pollution and the potential for improvements or further degradation under each alternative would help the reviewer understand the severity of this problem in the RMPPA.

Comment: Section 4.17: (1) The EIS should disclose water quality impacts to aquatic resources more clearly and quantitatively. By not evaluating water quality impacts, the DEIS does not fully discuss significant environmental impacts and inform decision-makers and the public about reasonable alternatives that can avoid or minimize adverse impacts. This information should be supported by environmental analyses in the Final EIS [40 CFR 1502.1]. (2) Please indicate in the Final EIS what State standards are in place for aquatic life, so that reviewers understand whether sensitive aquatic life may be affected by livestock grazing. Please also discuss how future management direction will improve any streams that do not meet State water quality standards.

Response: Water Quality Impact Analysis and Affected Environment sections have been updated in the RMP FEIS (Section 3.17 and 4.17). Two tables describing water quality classifications were added to Section 3.17. The bulleted list of assumptions in Section 4.17 was revised, and a paragraph was added detailing BLM's management approach to nonpoint source pollution. Analysis for fecal coliform was updated in the RMP FEIS.

Comment: For priority watersheds and riparian areas, BLM must identify measures, including filing for water rights under state permit procedures, to ensure water availability for multiple use management and functioning, healthy riparian and upland systems." BLM Land Use Planning Handbook H-1601-1, Appendix C at 2. The new Rawlins RMP should provide strong measures for protecting riparian areas. We support the use of Properly Functioning Condition Criteria as under the preferred alternative. But it is not just livestock grazing that threatens riparian areas. In addition, coalbed methane wastewater discharge, road construction and wellpad construction, and toxic wastes also threaten riparian vegetation. Strong measures are needed under the RMP to minimize degradation of wetlands and riparian areas as a result of these impacts, and appropriate measures are not to be found among the four alternatives currently under consideration.

Response: Section 1.4 lists standard guidance for BLM, including E.O. 11990 and 11988, concerning wetlands. The method used by the BLM for assessment of riparian areas is described in Section 3.15.3, Riparian Proper Functioning Condition. This method is qualitative and is an excellent tool for management, since it uses a multidisciplinary approach. All known wetland/riparian areas in the RFO have been assessed at least once. Keep in mind that the assessment method is only valid for at most a few years after it has been done. The RFO does watershed assessments for healthy rangeland (USDI, BLM 1997) on about a 10-year rotation. All the PFC assessments are redone the year before in the area being assessed. PFC information is then used for the standards for healthy rangeland assessment. Avoidance of surface disturbance in wetland, riparian, and identified floodplains would help protect these areas from

direct impacts (Section A11.2.5). All project-specific planning would include the protection of these important areas, as outlined in the Land Use Planning Handbook and the executive orders mentioned.

Comment: Maintaining riparian buffer areas is a good common-sense management practice that applies to almost any activity. We recommend this as a BMP on all stream channels and especially on those streams listed as impaired or threatened for habitat degradation on the State 303(d) List and the Class 1 waters. It is usually not practical to expect complete avoidance of riparian areas, but disturbances should be kept to the minimum necessary. Whenever entry into a riparian area is necessary, the activity should be supported by an adequate monitoring plan to ensure a stable and healthy streamside zone.

Response: Management actions common to all include an avoidance buffer of 500 feet from perennial waters, wetlands, and identified floodplains (Section A11.2.5). See Sections 4.15 and 4.17 for a description of impacts for this action. When considering linear features, such as roads, pipelines, and electrical lines, there is a need to allow some types of surface disturbance to cross linear features, such as riparian areas. Therefore, avoidance of these areas altogether eliminates disturbance, and the application of mitigation measures reduces the disturbance in situations in which the disturbance cannot be avoided. Text has been updated in the RMP FEIS to better describe avoidance areas.

Comment: Hydrologic investigations would include an evaluation of potential impacts to other groundwater resources, such as shallow aquifers that would be used for drinking water supplies or stock watering. These investigations would result in modification of monitoring requirements and long-term modeling of the various aquifers. Documented impacts on the various aquifers would result in management actions such as modification of pumping rates, changes in disposal options, or compensation programs for loss of water wells.” Comment One can assume that the BLM is requiring Operators to comply with the WDEQ's groundwater guidance (Compliance Monitoring for Ground Water Protection beneath Unlined Coalbed Methane Produced Water Impoundments), which became effective on August 1, 2004. However, this paragraph is extremely vague and it leaves the reader with several unanswered questions. For example, what is the extent of a hydrologic investigation? Who determines whether groundwater is being impacted? What are the monitoring requirements? To what extent will the monitoring requirements be modified if groundwater is impacted? Also, the WDEQ's groundwater guidance is subject to change. We recommend that BLM delete the above-referenced paragraph and replace it with: “BLM will require that Operators comply with the latest WDEQ groundwater standards and monitoring guidance.

Response: The document cited addresses only one of the potential environmental impacts BLM is tasked with analyzing in NEPA documents. Other impacts may include impacts to springs, seeps, wells and surface waters as well as changes in groundwater aquifers. BLM, as a public land and mineral resources steward, approves activities to develop federal leases and manage public lands. FLPMA requires the BLM to disclose impacts to the human environment from these actions. It is reasonable to ask companies to provide groundwater modeling, water sampling, or other data that can better define their project and/or potential impacts from the project. BLM also collects data to better monitor or assess impacts. These data may allow BLM to mitigate an impact, determine if assumptions were correct, or find no significant impact for a particular project. This data-gathering process is typically a voluntary process with operators, but may be required as a COA. Typically Wyoming agencies such as the WDEQ participate in this process as cooperators.

Comment: 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.

Comment: Road sprawl associated with oil and gas development can also have major effects on watersheds. Eaglin and Hubert (1993) used culvert crossings of streams as an index of road density, and found that this measure was positively correlated with increased stream siltation.

Response: Thank you for your comment. This information has been incorporated into Section 4.17, Water Quality, Watershed, and Soils, of the RMP FEIS.

Comment: As you know, BLM and Forest Service lands were not originally intended as lands for commercial development but as regions for supplying water for agricultural and city needs. As such, such lands were intended to remain free of development and hence contamination of water needed for western cities. Industrialization of these areas puts water for our western cities and agricultural areas in grave risk.

Comment: Appendix 11: Appendix 11 contains information from WDEQ that briefly describes the water quality status of selected watersheds within the RMPPA. Information in Appendix 11 is not reflected in the alternative descriptions or in discussions about impacts to the environment. This leads to the concern that the DEIS has not identified and fully evaluated a reasonable range of alternatives to enhance and protect water quality. The EIS should demonstrate how this information was used in developing the alternatives and assessing their impacts to the environment.

Response: Refer to the Water Quality, Watershed, and Soils Management section of Table 2-1 in the RMP FEIS, where particular watersheds upstream of municipal water sources are identified for special management. Management actions, goals, and objectives are listed for protection of water quality.

Comment: Please note that the majority of Appendix 11 in the RMP is excerpted from the 2002 305(b) Report and 303(d) List. BLM should reference the most recent (2004) documents for an accurate list of impaired waterbodies.

Comment: Table A11-1: The North Branch of North Crow Creek is on WDEQ's list of impaired water bodies for fecal coliform as indicated in Wyoming's 2004 305(b) Report. This stream segment should be added to Table A11-1.

Response: Table A11-1 has been updated with the current list (see reference). The text in the RMP FEIS has been revised to include the new 2004 information. The RMP is designed to guide management for at least the next 20 years. Although the BLM has made every effort to update the document with the latest information, discussion of the 303(d) list is designed to be general enough to accommodate new listings and to allow for changes in management as a consequence of delisting.

Comment: Page 3-120, Section 3.17.2.2 (1) The Water Monitoring section discusses BLM's approach to water quality monitoring in the RMPPA. This section should be expanded by including more information about the how data and other information will be used to make resource management decisions. More information about the monitoring approach would also help the reader understand its adequacy in providing information for resource-use decisions. WDEQ has a 2004-2008 Water Quality Monitoring Strategy and annual monitoring work plans available on their website. BLM's monitoring approach should better complement WDEQ's monitoring strategy and should be discussed in the EIS. (2) We recommend an increased assessment frequency so that management of land-use activities can be modified prior to significant deterioration of water quality. A 10-year assessment frequency is not adequate to respond to water quality impacts from land-use activities.

Response: BLM is aware of WDEQ's 2004–2008 Water Quality Monitoring Strategy and annual monitoring work plans and believes that BLM's monitoring approach will complement WDEQ's monitoring strategy; this strategy can be found in Section 3.17.2, Appendix 8, and Appendix 11 (Section

A11.2.8) and Appendix 17 in the RMP FEIS. In some cases, BLM may have different purposes for data collection than WDEQ; however, it is BLM's intention that data collection efforts would be coordinated whenever possible.

Comment: Accurate and comprehensive baseline data on water quality and aquifer characteristics are necessary for monitoring data to be meaningful, and these should be required by stipulation as well. Again, it would be inappropriate for either BLM or lessees to rely on any baseline studies that might have been conducted as part of the Prototype Leasing Program over 20 years ago. Moreover, the effects from absorption of waste water or runoff from waste rock are not well understood and could be cause for concern. Oil shale activities could also have deleterious impacts on water quantity by creating new demands from local support communities as well as by using water for actual oil shale-related activities at facilities.

Response: Currently, there is no reasonably foreseeable oil shale development in the Rawlins RMPPA. See Appendix 33, Reasonably Foreseeable Developments and Reasonably Foreseeable Actions (RFD/RFA) Tables, in the RMP FEIS. If a project were to be proposed in the future, the RMP would most likely need to be amended or revised based on project-specific analysis of the proposal.

Comment: LPMA requires that land use planning and the resulting RMP provide compliance with "pollution control laws" such as the Clean Water Act (CWA). 43 U.S.C. § 1712(c)(8). To do so, BLM must ensure that all streams on its lands comply with federal and state water quality standards. The DEIS blithely acknowledges that actions authorized by BLM will "result in degradation of water quality beyond the designated use of receiving water bodies..." DEIS at 4-264. This would constitute a violation of state water quality standards. BLM cannot plan to violate CWA. Instead, BLM must ensure that its revised land use plan for the Rawlins Resource Area includes adequate measures to prevent these violations.[footnote 41]

Response: The BLM is not planning to violate the Clean Water Act; the RMP complies with all laws, including the Clean Water Act (Section 1.4). The BLM, in the RMP FEIS, has adequately disclosed potential impacts to the human environment from reasonably foreseeable actions. Cumulative impact analysis includes actions that are beyond the BLM's purview. CFR 1508.7 defines a "cumulative impact" as a impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions. BMPs become mandatory when they are proposed by the operator for a particular site or are attached as COAs in the authorization for a particular action (Appendix 13). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. It is our opinion that BLM-approved actions, along with other activities in these watersheds, incrementally would likely cause waterbodies to exceed State of Wyoming water quality standards sometime in the future. Where and when this could occur is impossible to predict. Exceeding these standards in itself is not a violation of the Clean Water Act. NEPA allows the consideration of foreseeable impacts, when the information needed to undeniably show these impacts would be exorbitant or the means are unknown. CFR 1502.22 says that evaluation should be made based on "theoretical approaches or research methods generally accepted in the scientific community." Roads and construction activities have long been known to increase nonpoint pollution, even when properly done. The best available science indicates that development associated with oil and gas activities will increase surface runoff and erosion rates and, in some cases and locations, will lead to the degradation of water quality beyond its designated use. This is based on the assumptions in Section 4.17, Methods of Analysis. These assumptions would be theoretical approaches generally accepted in the scientific community. Therefore, the level of analysis in this context is appropriate. There are many activities and events that, when combined, could potentially lead to an exceeding numerical standards set by the state to protect water uses. Many of these activities and events are not subject to BLM approval, such as mineral

development on private lands with private leases, storm events that lead to flooding, and a host of other potential factors that could result in an exceedance of state standards. The State of Wyoming is tasked with administering the Clean Water Act, if and when this exceedance occurs, and if it is determined to be chronic, the BLM and other potentially responsible parties would then participate in a 303(d) listing and hopefully a delisting process designed to address the problem.

Comment: Page 3-119, Third Paragraph: “Interstate agreements...Recovery programs and interagency agreements regarding water depletions in the Colorado and Platte River Systems (Appendix I)” Recommendation: The word “not” should be inserted between “are” and “limited.”

Comment: Please include our recommended definition of the term and concept of “rangeland drought” as follows. This definition comes from the SRM Glossary of Terms, 4th Edition. “A prolonged chronic shortage of water, as compared to the norm, often associated with high temperatures and winds during spring, summer, and fall. A period without precipitation during which the soil water content is reduced to such an extent that plants stiffen (physiologically) from lack of water”. Please note that this SRM definition of rangeland drought does NOT include situations of a shortage of winter precipitation. The growth and health of herbaceous plants is dependent on growing season moisture on Wyoming rangelands, NOT snowfall accumulation during the winter season.

Response: Thank you for your comment and your interest in the Rawlins RMP. All editorial, document content, and document adequacy suggestions will be reviewed, considered, and applied to the RMP FEIS, where appropriate.

Comment: Non-point-source pollution from siltation from oil and gas access roads is an important impact on native fishes. See DEIS at 4-264. However, these BMPs are completely at the discretion of the operator, and are merely encouraged, not required. DEIS at A13-1. In order to protect water quality, an important resource in desert lands, it is necessary for the BLM to require these BMPs in all permitted activities as a minimum measure to protect water quality. If better methods become available in the future, these methods can be implemented over and above the BMPs already noted, or the BLM can amend to Rawlins RMP to incorporate the stronger measures. There is nothing that can be implemented in the Rawlins RMP that would preclude the...

Response: BMPs are innovative, dynamic, and improved environmental protection practices applied to oil and natural gas drilling and production as well as to other surface disturbing and disruptive activities, to help ensure that development is conducted in an environmentally responsible manner. BMPs are not one-size-fits-all situations. BMPs need to be matched and adapted to meet the site-specific requirements of a particular project as well as the local environment. BMPs are incorporated into site-specific project proposals and supported by site-specific environmental analysis. A number of appendices in the RMP FEIS contain BMPs and mitigation measures that support the intensive management identified in the RMP FEIS in Chapter 2. The Rawlins RMP does not mandate BMPs for particular actions at the land use plan level but instead provides a range of BMPs that would be applied, where appropriate, at the activity plan or site-specific level of analysis. The Methods of Analysis sections under each resource heading in Chapter 4 of the RMP FEIS contain assumptions that appropriate BMPs would be used to reduce the impacts of the various management actions under each alternative.

Comment: In Table 2-1 (p. 2-65) the DEIS states that under the Preferred Alternative, existing discharges into the Colorado River Basin would be allowed to continue. What are these discharges, where are they occurring, what harm has resulted, and what are the cumulative impacts.

Response: These discharges were approved under the Great Divide RMP, Interim Drilling Plan for Atlantic Rim, and the Environmental Assessment for Cow Creek Pod. Surface discharges at the Cow

Creek Pod can be expected to continue through the life of the RMP, in accordance with WYPDES permits WY0042145 and WY0035858, which allow for 1.34 tons/day and 180,600 gallons/day of total discharge under both permits. These permits are an offset for an oil well (as defined and allowed by the Colorado River Salinity Control Forum), and the permit allows for the same volume of water and salt as was discharged by the oil well plugged (1X-12). Impacts are still “not significant” and within the scope of the Environmental Assessment for the Cow Creek Pod.

Comment: The RMP did not discuss management in Class I waters, such as the “Miracle Mile,” in order to ensure that these watersheds will meet Class I standards. Further, no defined practices or monitoring plans are set forth in the DEIS to guide the control of salinity for watersheds in the Colorado River system. The final RMP should incorporate management and monitoring actions to protect the quality of Class I waters and control salinity.

Response: The discussion of these waters was updated in Section 3.17.1 and in Appendix 11 in the RMP FEIS. BLM manages the land and some of the mineral resources above these waters, but the State of Wyoming manages the waters themselves.

Comment: The Wyoming Water Development commission is concerned that High Savery Dam continue to be managed per the existing Memorandum of Understanding it holds with the BLM. Specifically, mineral entry should not be allowed in those areas covered by the MOU. The MOU should be honored and adhered to by and through the DEIS.

Response: The MOU and management actions associated with it are described in the RMP FEIS (see the High Savery discussion in Section 3.13.2). Management actions change by alternative (Table 2-1), but BLM will honor the MOU with the WWDC under all alternatives.

Comment: Chapter 3: A map that indicates the grazing allotments and water bodies on WDEQ's 303(d) list and other water bodies with water quality concerns should be included in the EIS. The map should also show which streams flow from BLM's grazing allotments into Colorado where they become 303(d) listed. This would help the reader understand where grazing is of greatest concern for impacting water quality.

Response: A map cannot be generated of allotments that are in the headwaters of 303(d) listed streams in Colorado, since there are none that exist (see the RMP FEIS updated analysis in Section 4.17 and Appendix 11, Section A11.2.2. See the updated analysis in Section 4.17 and Section A11.2.2 in the RMP FEIS. Waterbodies listed on Wyoming's 303(d) list are shown in Table A11-1. Refer to Table A11-1, which lists the impaired or threatened waterbodies located in the RMPPA. There are no streams which flow from BLM grazing allotments within the RMPPA into Colorado, where they become 303(d) listed for bacteria. The Cumulative Impacts section looks at downstream implications for BLM activities outside of the RMPPA and State of Wyoming boundaries. This is done for constituents that are subject to loading from nonpoint sources, such as sediment or salts. For grazing management, specific guidance in Standards for Healthy Rangelands (USDI, BLM 1997) requires practices to not exceed state standards, meaning the State of Wyoming. If the State of Wyoming or EPA has a standard for a waterbody that is leaving the RMPPA and the State of Wyoming that could be improved by BLM management, this would be done as part of Standards for Healthy Rangelands (USDI, BLM 1997).

Comment: Page 2-26, Table 2-1: No documentation is provided to show that narrative or anti-degradation standards would be met. Cattle spend much time in riparian areas, including streams, springs, and wetlands, and they deposit manure and urine in those water bodies, threatening water quality. Assurances should be included in the alternatives to demonstrate that grazing activities will meet these

standards. Please include information on which streams or rivers in the RMPPA flowing from Wyoming to Colorado, where they become listed 303(d) in Colorado.

Response: Appendix 8 in the RMP FEIS describes specific guidance used to evaluate Standards for Healthy Rangelands (USDI, BLM 1997). Water quality impacts, as they relate to cattle grazing and other BLM- approved activities, are considered during these evaluations. Additional information has been added to the RMP FEIS to describe methods for monitoring water quality from BLM-approved activities (Section 3.17 and Section A11.2.8) and water quality conditions in the RMPPA. Also, see the updated Wyoming 303(d) list in the FEIS. The Cumulative Impacts section (4.20) looks at downstream implications for BLM activities outside of the RMPPA and State of Wyoming boundaries. BLM will adhere to State of Wyoming or EPA standards for a water quality within its management authority for any body leaving the RFO. An evaluation was done using information to determine any RFO watersheds that are upstream of waterbodies on the 303(d) list in other states, and none were found (Appendix 11). Those streams listed on the 303(d) list in Wyoming or another state would trigger the need for management action, according to Rangeland Standard 5 (Appendix 8).

Comment: Page 2-26, Table 2-1: Ensure that the intensity, duration, and frequency of permitted grazing are commensurate with maintaining and sustaining riparian and aquatic life habitats in all stream drainages and with improving upland vegetation and habitat. Reduced numbers of animal-unit months (AUMs) from current allotment management and rest rotation systems should be used to meet the standards listed in the Standards for Healthy Rangelands.

Response: Objectives and management goals have been added to Table 2-1 to address these goals. The Standards for Healthy Rangelands assessments evaluate if the intensity, duration, and frequency of permitted grazing are commensurate with maintaining and sustaining upland, riparian, and aquatic habitat. If current management is not meeting these standards, rest rotation systems and other grazing management scenarios would be used to achieve standards.

Comment: I ask the BLM to ensure local water supplies are not impacted by coalbed methane discharge wastewater. Where will all the wastewater from these 8000 proposed wells go?

Response: Of the anticipated 8,822 wells, an estimated 4,563 will likely be CBNG. Depending on the project and river basin, CBNG projects may inject or surface discharge produced water. Impacts from these alternatives are analyzed in Section 4.17, as they relate to local water supplies, and in other sections of the RMP FEIS, as appropriate.

Comment: It is impossible to tell how much CBM water has been produced in the RRPA in the past nor how much will be produced in the future. The BLM states that there has been little gas production in coal beds and that only: "...10.3 million barrels of water have been produced in the RMPPA as of January 2002." However, in Appendix 20 (p. A20-14) the BLM states: "For the last four years, starting in 2000, water production rates averaged 246,473 BWPD." My calculation of the amount of water yielded during this period based on your statistic would be $(246,473 \text{ BWPD})(365 \text{ days})(4 \text{ years}) = 359,850,580$ barrels of water in the last 4 years. This total of almost 360 million barrels of water in 4 years is 3.5 times the cumulative total through the year 2002. If these numbers are correct, this indicates a great increase in produced water and suggests that disposal of increasing amounts of water could be a major environmental issue.

Response: These estimates contain a high amount of uncertainty since the CBNG projects in the RMPPA are all in the pilot stage; there will be an unknown increase in produced water as projects are developed. Impacts from disposal options have been updated for the FEIS and are analyzed in detail in Section 4.17 among others.

Comment: [Page 2-66, Summary Comparison of Alternatives, Water Quality.] Recommend deleting “other” from the selected alternative. Without the deletion, some readers would interpret grazing management as a surface disturbing activity, which it is not. Also recommend changing “intensively managed” to “managed” and then describing the specific management you expect. A word count shows that you used the term “intensively manage” over 50 times with various management actions, resources, and resource uses. Unfortunately, the definition of this term in the Glossary provides few clues as to what you expect. If there are rigorous requirements above normal management, they should have been detailed so that those of us reviewing the DEIS would understand what you're expecting.

Response: The definition of intensive management has been updated in the FEIS, and the Summary of Impacts was changed for clarity.

Comment: Although the BLM claims that no surface water would be discharged into the Colorado River Basin (p.4-241), this is evidently not true, because under the Cumulative impacts section (p. 263), the DEIS states: “Cumulative impacts would likely be greatest in the Colorado River Basin and in the North Platte subregion above Seminoe Reservoir as a result of minerals development and surface discharge of produced water combined with other surface disturbing and disruptive activities.” Furthermore, it states: “Specifically, discharging produced waters into ephemeral drainages or not adequately considering water treatment options in the North Platte or White-Yampa sub-regions could result in significant impacts.” Finally, it states: “mineral development activities and construction of livestock water development would deplete water from the Colorado and Platte River drainages.” ... “These depletions would change the nature of flows, which could alter stream dynamics and cause overall degradation of the riparian corridor. Furthermore, wildlife and fish species not identified under the ESA for protection could be impacted by changes in flow in these systems.” Thus, the BLM recognizes a potential for significant impacts in both the Colorado and Platte river basins from future CBM aquifer dewatering, contamination, and produced water, but specific impacts and their potential magnitude are not presented nor discussed.

Response: Impacts for disposal of produced water from CBNG (CBM) development have been updated by alternative in Section 4.17 in the FEIS.

Comment: DEQ strongly recommends that the BLM coordinate with its various operating Divisions to update the list of water, air and soil BMPs. I concur. With the proposed level of development within the Field Office, the most up-to-date information and technology should be incorporated.

Response: Appendix 13, Best Management Practices for Reducing Non-Point Source Pollution, has been updated to include the latest BMPs developed by Department of Environmental Quality (DEQ), as well as a reference (see the updated RMP FEIS).

Comment: it is critical that the Clean Water Action Plan and Riparian-Wetlands Initiative be fully implemented by the RMP, and that riparian areas be afforded ACEC protection. The EIS fails to do this.

Response: A discussion of these plans was added to Section 3.17.2 and Appendix 11 in the FEIS. The watershed approach specified in the Clean Water Action Plan has been incorporated by providing specific management actions for the Encampment and Muddy Creek watershed (Table 2-1). The ACEC designation is only as meaningful as the management actions that are attached to it. The RMP FEIS identifies management actions that specifically provide protection for wetland/riparian areas, specifically under Surface Disturbance and Permanent Structures in Waterways in the Water Quality, Watershed, and Soils Management section of the table. Also, included in Table 2-1 are management actions for specific areas, such as the Laramie Plains Lakes Area, Upper Muddy Creek Watershed/Grizzly Area, North Platte River SRMA, and the Chain Lakes SD/MA under the SD/MA and Recreation and Visitor Services

sections. These management actions adequately address protection of riparian and wetland areas in these priority SD/MAs.

Comment: I understand that the BLM intends to pursue surface discharges of CBM product water in the North Platte Watershed, apparently with little or not treatment. I also understand that some areas in which SAR values are around 10, the BLM may use water in Seminoe Reservoir to dilute CBM product water levels that would be acceptable for agricultural standards. This needs to be discussed fully in the DEIS, because dilution of toxins generally is not an acceptable practice. Toxic substances would be introduced, assimilated by organisms, stored in sediments, and differentially incorporated in ecosystems, with predictable deleterious consequences. There is a potential for dumping large quantities of salts and toxic substances by going the dilution route. However this is still pollutions.

Response: BLM is not “pursuing surface discharges.” Project proponents submit plans for development that include, among other things, methods for water disposal. The BLM can analyze additional alternatives that mitigate impacts anticipated from the plan of development, and these alternatives can, and usually do, include different water disposal methods. Under Onshore Order #7, the BLM may approve, deny, or present alternatives for water disposal that meet the purpose and need of the project. Onshore Order #7 also states that injection is the preferred method of water disposal. See the updated analysis of CBNG development in Section 4.17 in the RMP FEIS.

Comment: EPA encourages BLM to be more assertive in the preservation of riparian habitat and water quality in grazing allotments. This DEIS states that if livestock grazing is considered to be a factor in violating the standards (i.e. Standards for Healthy Rangelands), the responsible livestock operator might be required to alter grazing practices. Mitigation should be required prior to conditions warranting a violation of the standards. If increased coalbed methane gas development leads to increased erosion and sediment loading (specifically for 303(d) listed streams), then prohibiting grazing in these allotments may be the best mitigation for protecting water quality.

Response: Review Section 3.15.3 for a description of Proper Functioning Condition (PFC), the method used to evaluate riparian areas by the BLM. The BLM has a long history of managing grazing in these areas and will continue to be assertive in the preservation of riparian habitat (Section A11.2.5). All mitigation is considered at the activity planning and project decision levels (Section 1.3) and may include grazing BMPs, as described in Appendix 13, Best Management Practices for Reducing Non-Point Source Pollution. A watershed could fail Healthy Rangeland Standards based on oil and gas activity (Appendix 8). If surface discharges from CBNG cause a watershed to fail Healthy Rangeland Standards based on impacts to water quality, then surface discharges would be mitigated based on current management direction. Livestock grazing would only be altered when the livestock grazing causes an allotment to fail standards. The BLM is responsible for the multiple use management of the public lands and is not to consider one use over any others.

Comment: EPA believes that the EIS should disclose water quality impacts to aquatic resources more clearly and quantitatively. By not evaluating water quality impacts, the DEIS does not fully discuss significant environmental impacts and inform decision-makers and the public about reasonable alternatives that can avoid or minimize adverse impacts. This information should be supported by environmental analyses in the Final EIS.

Response: The analysis for water quality impacts was updated in the FEIS. Quantitative and clear descriptions of impacts to water quality as a result of actions common to all alternatives are presented (Section 4.17.1) and in the cumulative impacts discussion in Section 4.20. At the activity planning level, the BLM provides quantitative impact analysis based on specific project proposals. When the BLM identifies impacts to water quality based on project actions at the activity planning level, mitigation is

often implemented that can moderate or, in some cases, remove the impact described. For these reasons the BLM believes that the updated water quality impact analysis is appropriate.

Comment: Protection of ground water has been a problem at many areas where oil production has been allowed and whatever drilling is allowed needs to be monitored to ensure that the ground water is protected from polluting activities.

Response: Impacts to groundwater are considered in Section 4.17 in the RMP FEIS. Drilling activities are regulated by the Wyoming Oil and Gas Conservation Commission (WYOGCC), in addition to the BLM. State requirements include cementing off portions of the well bore that are in groundwater resources. Additional requirements by the BLM include COAs that specify requirements, such as those relevant to construction of reserve pits and requiring spill hazard plans. All projects are evaluated for impacts on the human environment based on project-specific details using the NEPA process at the activity planning level.

Comment: The BLM needs to identify and consider native fish communities as valuable natural resources. Wherever potential conflicts exist, such as surface discharge of CBM product water, all alternatives must be considered to reduce impacts. At the very least, surface water discharge into streams should be released to approximate natural, seasonal hydrological regimes, and water quality of receiving waters should not be degraded.

Response: Native fish communities are described in detail in Section 3.19.3 of the RMP FEIS. At the activity planning level (Section 1.3), surface discharge of CBNG water is considered, along with potential conflicts with other resources. See Appendix 11, Water Quality and Watershed Management, for more information about how this process works at the activity planning level.

Comment: The BLM states that there are potential adverse environmental consequences associated with the disposal of CBM product water, but in the “Summary” section (p. ES-12) and several other pertinent areas of the document these consequences are not discussed. Only in Chapter 4, Evaluation of Impacts under Alternative 1, (page 4-220) does the BLM allude to potential impacts that may occur due to the disposal of CBM produced water. Furthermore, in section 4.19.4, “Impacts Under Alternative 4; Preferred Alternative”, the DEIS states that water quality, watershed, and soils impacts (p. 4-241) would be similar to those described under alternative 1, except for not allowing surface discharge into the Colorado River Basin. Clearly BLM anticipates the potential for significant impacts given [what’s stated on] on page 4-220, paragraph 5,6.

Response: Impacts for disposal of produced water from CBNG (CBM) development have been updated by alternative in Section 4.17 in the FEIS.

Comment: There is a need to standardize watershed terminology (e.g., basin, sub-basin, etc.) with those used by the USGS and EPA. Reference should be made of 6th - 8th level hydrologic units (HUC), which will become more commonly used during the life of the projected life of the RMP.

Response: Current terminology for hydrological unit codes (HUCs) in the RMP FEIS should be correct.

Comment: [I urge you to amend the preferred alternative to require oil, gas, coal, and other operations or development to take extraordinary precautions to] prevent, contain and clean contamination of groundwater and surface water from accidental spills, erosion and sedimentation, process water discharge or other sources.

Response: Requiring operational plans from the operator, state regulation, and other federal agency regulation will adequately protect water resources from accidental spills (review Appendix 32, Hazard Management and Resource Restoration Program, for more information).

Comment: In order to conserve native fishes in this watershed [Muddy Creek], barriers to fish passage and wastewater inputs into Muddy Creek must not be allowed.

Response: Management actions are included in the RMP FEIS. One of the management actions for the Upper Muddy Creek Watershed/Grizzly Special Management Area addresses instream structures directly and would allow for all barriers on public land to be removed that have not been placed for fish management actions.

Comment: Prior to permitting CBM produced water discharges, stream channel morphologic and hydraulic analysis of proposed discharges should be required to assess the likelihood that discharges would increase erosion and sediment transport resulting in headcuts, bank failure, and sediment loading of downstream waters. Where analysis indicates discharge would increase downstream erosion and sediment transport above current levels, impoundment of produced water and controlled discharge from the impoundment at level that will not increase erosion and sediment transport should be required. [Page 2-96, Section: Sum. Comp. Of impacts]

Response: These types of analysis would occur at the activity planning and project decision level (see updated Appendix 11 in the FEIS).

Comment: Produced water from Oil and Gas Activities. The preferred alternative should be a compromise between Alternative 1 and 4 defining that surface disturbing activities will be minimized in the areas specified. If surface disturbing activities are absolutely necessary the area of disturbance will be kept to the smallest area necessary to complete the project. [Page 2-66, Section: Produced Waters]

Response: The management actions under the Produced Water from Oil and Gas Activities heading in Table 2-1, Detailed Comparison of Alternatives, deals with the surface discharge of produced water alone and not surface disturbing activities.

Comment: Linear crossings should be constructed in such a way to allow free passage upstream and down of all aquatic wildlife. [Page 2-15, Section: 2.3.14, 3]

Response: Appendix 13 in the Methods for Designing Road Crossings section describes BLM's policy for linear crossing designs. Allowing the free passage of aquatic wildlife is a primary goal for all linear crossings built or approved by BLM.

Comment: 4) A more complete description and assessment of the groundwater environment and the effects of development on the groundwater must be provided in order to fully and accurately disclose the effects of oil and gas development, particularly the development of natural gas. It is certainly very possible to manage the production of CBNG and the co-production of water from CBNG in such a way as to be beneficial and protective of the resource, but without a description of the resource and an explanation of how produced water will be managed, it is impossible to understand and assess any potential impact.

Response: Potential groundwater impacts in Section 4.17 and the affected environment for groundwater in Section 3.17 have been revised for the RMP FEIS.

Comment: 2-16- It is stated that the best management practices in Appendix 13 (which are for reducing nonpoint source water pollution) will be applied under all alternatives for the benefit of wildlife. Yet a number of provisions apply to protection of wildlife, presumably in all or most cases, including the provisions in Appendices 1, 14, 15, and 24. It should be made clear these provisions apply to the protection of wildlife in all cases.

Response: Table 2-1, Detailed Comparison of Alternatives, has been updated in the RMP FEIS to include additional references, where appropriate, to appendices containing BMPs.

Comment: In the DEIS, the BLM recognizes the fact that Platte River endangered species “are highly susceptible to actions upstream in the Platte River system.” DEIS at 3-139. However, only “RMPPA actions that may cause water depletion in the Platte River system are carefully considered.” Id. However, in addition to water depletions, permitted actions which might affect the viability of downstream endangered species include any action which would add salinity or other pollutants to the Platte River, particularly the surface discharge of coalbed methane wastewater. BLM notes that all discharged water must be approved by the State of Wyoming through the National Pollutant Discharge and Elimination System. DEIS at A11-8. BLM appears to assume that NPDES limits enforced by the State will address water quality issues with respect to the pallid sturgeon and other Platte River endangered species. This is far from the case. NPDES pollutant levels for the Platte River were set based on the needs of downstream irrigators, not endangered fishes and birds, which may have a much lower tolerance to pollutants and salinity than domestic row crops. Because NPDES standards cannot be counted upon to provide adequate pollutant standards for endangered species, the BLM must provide in the Rawlins RMP EIS an analysis of reasonably foreseeable surface discharges for coalbed methane. Both Seminoe Road and Hanna Draw projects are currently before the BLM and are therefore reasonably foreseeable, and BLM’s analysis should also factor in reasonably foreseeable development based on oil and gas leasing in moderate- to high-CBM potential areas north of Saratoga and elsewhere in the Platte River watershed. The analysis should incorporate coalbed methane wastewater pollutant levels known based on discharges from the Seminoe Road pilot project and Hanna Draw exploration that has occurred on private lands. A full disclosure and analysis of potential pollutant and salinity loads in the Platte River system must be presented in the EIS in order to meet NEPA hard look requirements for direct and cumulative impacts.

Response: More detailed analysis of CBNG is included in the RMP FEIS. The State of Wyoming has primacy in issuing surface discharge permits and, as such, is responsible for setting permit conditions to protect uses downstream, including for wildlife. The BLM discloses impacts from approved actions to all resources downstream in project-specific NEPA documents.

Comment: Page 4-189, Section 4.17: This section contains information about impacts to water quality from land-use activities. In Section 4.17.1 (Impacts Common to All Alternatives), impacts from grazing activities are minimally described, and in the subsequent sections that are about specific impacts from each alternative, there are no descriptions about additional grazing impacts. Grazing impacts to water quality should be more thoroughly discussed in these sections.

Response: The impact analysis for grazing has been updated in the RMP FEIS (Section 4.17). Standards for Healthy Rangeland (USDI, BLM 1997) evaluations occur on approximately a 10-year cycle and are conducted by watershed. This BLM regulation requires that if water quality is not meeting standards, management that contributes to the nonattainment of the standard would be changed. Monitoring would determine the effectiveness of the change.

Comment: [page 3-118 Surface Water Quality] The discussions of Sage and Muddy Creek Watersheds fail to mention SERCD’s long-term and on going study of the Sage Creek Watershed and the many

improvements that have been done and are presently on going. These projects are done cooperatively between SERCD, Landowners, Wyoming DEQ and the Rawlins BLM.

Response: Conservation districts are mentioned in the list of agencies involved in managing and regulating water quality in Section 3.17.2 in the Water Management and Monitoring Section and Appendix 11 (Section A11.2.8). Section 3.17.1, Water Quality and Watershed, is meant to be a basic overview of water quality characteristics and not a description of watershed projects. In Section 3.17.2, the RMP FEIS states that “BLM participates in efforts to manage and monitor waterbodies listed on the 303(d) list. ...” The BLM is typically one of a number of stakeholders working on 319 projects, and therefore, specific projects are not mentioned. Appendix 11, Water Quality Within the RMPPA and River System Depletions, details, by area, efforts by all groups to protect or improve certain waterbodies. Two references are made to this appendix in Section 3.17.1.

Comment: Page 2-96, Alternative 4: “Similar to Alternative 3, reinjecting produced water into the Colorado River Basin and only allowing surface discharge in the North Platte and Great Divide basins that would meet BLM management objectives would result in the least number of water quality standards exceedances.” Comment This language presumes that (1) reinjection is the only water management tool available to Operators in the Colorado River Basin, (2) Operators will not be allowed to surface discharge in any basin other than the North Platte or Great Divide basins and (3) the BLM has the authority to regulate water quality. It is necessary for BLM to defer to the Wyoming Department of Environmental Quality when dealing with water quality issues. We recommend amending the above language as follows: As long as the WDEQ's or other participating agencies water quality standards/rules are not exceeded, Operators will be allowed to use the full range of water management tools available including surface discharge, storage, injection or treatment.

Response: Management actions are in Table 2-1, Detailed Comparison of Alternatives, and there is another summary in Table 2-4, Summary of Comparison of Impacts. Under Alternative 3, actions would restrict the options for produced water discharge.

Comment: Water discharge should not adversely affect the systems that the water is discharged into. Water should be purified/desalinized before discharge or reinjection in order to minimize over-salinization of the system.

Response: If adverse impacts are identified from BLM-approved activities, they must be disclosed (Section 4.17 for a more detailed analysis). Impacts are evaluated in more detail at the activity planning level (Section 1.3 of the RMP FEIS). The State of Wyoming permits injection water wells and issues surface water discharge permits. For groundwater injection, the state typically only approves permits into formations with lower quality water than the water that is being injected. Increasing salinity in injection formations is not likely and therefore should not generally require treatment of injection waters. If surface water quality or groundwater quality requires treatment before discharge, Wyoming DEQ will require this treatment before injection or discharge, and impacts will be identified during the activity planning NEPA analysis.

Comment: pp. 4-191; 4.17.1 Impacts Common To All Alternatives, 2nd paragraph. This statement apparently does not reflect Best Management Practices that can reduce these impacts, although a number of these can be found in Appendix 3. It has been shown that reductions of over 50 percent are achievable with the proper installation and maintenance of Best Management Practices (BMPs). Based upon studies conducted by the EPA on minimizing soil loss from construction sites; the effectiveness of BMPs ranges from 0 to 100 percent reduction in TSS, as shown in the table below. [See table in hard copy] It is not unusual to expect reductions of over 50 percent with the proper installation and maintenance of BMPs. Therefore, it is critically important that reductions in sediment reflect the use of

BMPs. Not including the effectiveness to the BMPs overstates the impacts from sedimentation; therefore all alternative and the cumulative impacts sections in the FEIS should adjust sedimentation figures for the use of BMPs.

Response: The impact analysis for water quality has been updated in the FEIS. The analysis assumes the full implementation of BMPs, as appropriate.

Comment: Page 4-262, Section 4.20, Cumulative Impacts: A more thorough analysis of cumulative effects should be presented in Section 4.20 Cumulative Impacts. The WDEQ 2004 305(b) Report (Appendix 11) provides a baseline description of water quality conditions within each watershed. The water quality impacts that would result from implementing each alternative should then be considered at a watershed scale by discussing how overall water quality within each watershed would be affected by resource-use activities.

Response: The supporting information for the conclusions in Section 4.20, Cumulative Impacts, was added for the RMP FEIS. Appendix 11 has been updated with the WDEQ 2006 305(b) report.

Comment: pp. 4-263; Water Quality, Water Sheds and Soils, 3rd paragraph, 1st line Comment: The statement is made that “Mineral development activities...would deplete water from the Colorado River and Platte River drainages.” Is this based upon hydrologic models that are built specifically for this basin? If not and there is a lack of scientific evidence to support this statement, this sentence should be deleted from the FEIS.

Response: At the activity planning level (Section 1.3), the BLM evaluates and discloses impacts based on the purpose and need of the project. Impacts from mineral development projects may include activities such as dust abatement, drilling, construction, and hydrostatic testing. Consultation with USFWS occurs as necessary. Modeling, isotopic analysis, or other appropriate methods are used at this planning level to estimate potential depletions from BLM-approved activities.

Comment: Page 4-190, Section 4.17.1: EPA recommends that the FEIS note how much riparian fencing and management practices are needed to fully protect riparian resources that are significantly impaired by livestock grazing and recreation. A proposed schedule and estimate of total resources that would be necessary to accomplish that protection also is recommended. A summary could be provided for both projected needs and actual implementation during the period covered by the DEIS. The following practices and their needs could be provided as part of that summary: (a) riparian fencing, (b) off-channel water sources for livestock, (c) prohibitions of livestock from using areas that contribute runoff to important aquatic areas, (d) changes in livestock utilization and the time and duration of use, and (e) prevention of recreation impacts to those areas.

Response: Appendix 33 lists the number of range improvement projects anticipated per year, including, in part, new water sources and fence improvements that would be needed to meet Healthy Rangeland Standards, as well as other livestock management goals. Specifics would be determined during site-specific planning each year. Appendix 8 details Standards for Healthy Rangeland and methods to implement goals described. The impact analysis for livestock grazing has been updated in Section 4.17 of the RMP FEIS.

Comment: Page 4-189, Section 4.17, third paragraph: This paragraph discusses effects on water quality from harvesting of minor wood products. The phrase “short-term effects” should be defined so that the reader can better understand the expected impacts.

Response: The FEIS has been updated to provide an estimated time period when the term “short-term” is used in Section 4.17.

Comment: You apparently don't know that national forests and wildlands were protected in the first place to protect the watershed and guarantee good and sufficient water for the western states.

Response: See Section 1.4, in which text from FLPMA is presented. This section includes the following: “...for multiple-use management on a sustained yield basis for the protection of scientific...water resource and archaeological values.”

Comment: I am concerned about the deep aquifer water that may be impacted by the coalbed methane well process. The Great Divide Basin is a desert, the water is the lifeblood and to down grade or destroy the deep aquifers would adversely affect the quality of the land.

Response: Types of groundwater impacts that can be expected from CBNG in general are described in Section 4.17. Impacts from specific projects would be determined at the activity planning and project decision level (Appendix 11) by using isotopic water samples, geology, groundwater modeling, and/or water quality sampling analysis.

Comment: In light of the potentially damaging effects of these projects, [dam diversions] special provisions must be made to safeguard the health of aquatic ecosystems.

Response: All projects proposed for dams or diversions on or crossing BLM-administered lands will require NEPA planning that evaluates the health of aquatic ecosystems, among others. Special management actions can be found in Table 2-1 for Muddy Creek in the section on water quality, watershed, and soils and in the special management section for the Muddy Creek SD/MA.

Comment: Air, water and land would be degraded much more rapidly with the nearly 70,000 projected petroleum wells in which the Great Divide Country administration proposes to play a part. This process should be reversed in favor of plans for improving air, water and land quality.

Response: The RFD scenario for fluid minerals projects 8,822 wells to be drilled in the RMPPA. Appendix 20, Oil and Gas Operations, has been updated in the RMP FEIS to include a description of the RFD process. The environmental impact of this level of new oil and gas exploration and development has been updated in Chapter 4 of the RMP FEIS.

Comment: 4-264. It is stated that various activities will “result in the degradation of water quality beyond the designated use of receiving water bodies in the White Yampa subregion and potentially in the North Platte subregion (depending on development strategies).” At least relative to the White-Yampa subregion, this is an explicit statement that BLM will violate the Clean Water Act, which it is prohibited from doing. BLM must not allow for violation of the Clean Water Act, and therefore the final EIS must impose greater levels of limits on development and/or mitigation than is apparent in this draft EIS, at least in the White-Yampa subregion, and likely in the North Platte subregion as well. Map 4-1, which apparently shows these watersheds, is not particularly clear; it is difficult to see what exactly the extent of these watersheds is. It appears that for practical purposes the White-Yampa subregion includes the Little Snake River drainage. Is that approximately correct?

Response: The Little Snake River drainage is in the White-Yampa subregion (see Map 4-1, Water Quality and Watersheds Cumulative Impact Analysis Area, in the RMP FEIS). The BLM does not plan to violate the Clean Water Act. As discussed in Chapter 4 of the RMP FEIS, with the amount of disturbance described in the RMP, and other factors described in the Cumulative Impacts section, reasonably

foreseeable future actions would likely result in water quality impacts beyond current numerical standards for designated uses, and this is most likely to occur in the White-Yampa subregion, specifically Muddy Creek, but could also occur in the North Platte subregion, depending on options for handling water from CBNG development. The impact analysis in Section 4.20, Cumulative Impacts, has been updated in the RMP FEIS.

Comment: BLM acknowledges its preferred alternative will lead to significant water quality impacts, and even loss of designated uses, particularly in the White-Yampa/Colorado River watershed. 4-202, 4-264. The vast majority of the 303(d) listed water-bodies are in the Little Snake watershed. Muddy Creek and Sage Creek have salinity problems and/or sedimentation problems. 3-118. This just adds weight to BLM's responsibility to affirmatively protect water quality so the streams no longer need to be listed on the 303(d) list.

Response: It is incorrect to state that the "vast majority of the 303(d) waterbodies are in the Little Snake Watershed." Sage Creek in the North Platte and Section 3.17, Water Quality, Watershed, and Soils, in the RMP FEIS has been updated to include a list of current 303(d) listed waterbodies and their associated watersheds. Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS includes goals, objectives, and management actions designed to protect water quality, including water quality in watersheds with 303(d) listed streams. Appendix 8, Monitoring Methods to Assess Wyoming Standards and Guidelines for Healthy Rangelands; Appendix 11, Water Quality Within the RMPPA and River System Depletions; and Appendix 13, Best Management Practices for Reducing Non-Point Source Pollution. describe evaluation processes and identify management actions that would be considered for inclusion in any authorized activity during implementation of the RMP. Appropriate BMPs were included as assumptions for analysis in the development of the impact analysis in Chapter 4 of the RMP FEIS.

Comment: I'm gravely concerned at the prospect of dangerously reducing our water tables and risking our water supply for the sake of methane gas wells. This is a very risky proposition. It is already compounded by the installation in the Summer of 2005 of the Integra gas pipeline that will require the use of thousands of gallons of water to test the integrity of the pipe before gas is pumped through it. We cannot afford to use up our water supply.

Response: The impact analysis for CBNG development has been updated in Section 4.17 of the RMP FEIS. The Entegra pipeline will use 56 million gallons (1,700 acre-feet) total for hydrostatic testing, of which the majority, mostly out of the Colorado River Basin, will be discharged after testing near the same location from which it is withdrawn in the Little Snake River. According to the NEPA document for the project, water withdrawals will be 10 percent less than the average August/September daily low flows in this system, of which only a small portion will be lost during testing.

Comment: The RMP does not address management of other drainages with listed waters in the planning area - the West Fork of Loco Creek and Savery Creek below Little Sandstone Creek. The RMP needs to include the same intensive management stipulations for these drainages as it does for the Muddy Creek and Sage Creek drainages.

Response: The Savery Creek watershed was not selected for special management, because there is no BLM land adjacent to Savery Creek below Little Sandstone Creek and only 17 percent of the watershed is public land. BLM management capability within this watershed is therefore limited. For more detail and an updated discussion of the Savery Creek drainage (see Appendix 11, Water Quality Within the RMPPA and River System Depletions in the RMP FEIS). West Fork of Loco Creek is listed on the 303(d) list for threatened and impaired waterbodies (Table A11-1). Under management actions common to all in Table 2-1, all waterbodies on the 303(d) list would receive intensive management. For the west fork of Loco

Creek, this means local coordination with the stakeholders on water quality improvements, through improved livestock management and planning for vegetation treatments.

Comment: Al 1-6 A number of impaired or threatened waters are listed. Having been designated as threatened or impaired under section 303(d) of the Clean Water Act, BLM has special responsibilities to protect these waters and see that their water quality is improved. By definition, the existing water quality management scheme is not working in these watersheds. Since the vast bulk of the land involved is federally owned surface estate and the activities occurring on these lands are mostly approved by BLM, BLM has direct control over many sources of impairment. Yet, in reviewing pages Al 1-1 to 5, it is apparent BLM is doing little to improve water quality. It is following not leading. Most of the activities discussed are being undertaken by various conservation districts, not BLM. BLM needs to lead not follow on all waters listed in Table All-1 where BLM is the dominant surface owner.

Response: The BLM disagrees with the statement, “the vast bulk of the land involved is federally owned surface estate and the activities occurring on these lands are mostly approved by the BLM.” Many of the stream segments listed on the 303(d) list have mixed ownership upstream and the reasons for listing often include activities outside of BLM control. The BLM typically actively participates in these processes for 303(d) listed streams. There is nothing in the BLM’s mandate that would give us the authority to “take the lead” in water quality. The State of Wyoming has primacy in the case of water quality regulation.

Comment: Other drainages below Sage Creek also contribute high sediment loads to the North Platte River above Seminoe Reservoir. We would ask the BLM to consider intensively managing these drainages to reduce sediment loading to the North Platte River.

Response: All drainages within the RMPPA are evaluated using Standards for Healthy Rangelands, which include a watershed standard that addresses water quality concerns. See Appendix 8, Monitoring Methods to Assess Wyoming Standards and Guidelines for Healthy Rangelands, in the RMP FEIS. The BLM is currently unaware of other drainages that contribute high sediment loads to the North Platte River below Sage Creek, since this drainage was singled out for listing on the state 303(d) list. If the State of Wyoming identifies other drainages that should receive special management, BLM would address them using the goals, objectives, and management actions in the Water Quality, Watershed, and Soils Management section in Chapter 2 of the RMP FEIS.

Comment: BLM should intensively manage all surface disturbances in the entire Muddy Creek drainage. For these special management areas, we must encourage BLM to more fully define “intensively managed” to include at a minimum, management in a manner which minimizes acres of surface disturbances, number of stream crossings, and miles of roads, especially in identified 100-year flood plains, areas within 500 feet of perennial waters, springs, wells and wetland riparian areas, as well as areas within 100 feet of the inner gorge of ephemeral channels. It should also specify that this includes designing surface disturbances to reduce high energy flows and sediment loading. BMPs should not be the “least restrictive measures” available (see pg. 2-9), but should be the employment of the best available and proven technology for resource protection.

Response: Management actions for the Muddy Creek SD/MA, under the Special Designations and Management Areas section of Table 2-1, Detailed Comparison of Alternatives, in Chapter 2 of the RMP FEIS, address the intensive management of sensitive resources within the Muddy Creek drainage. Water features would be managed as avoidance areas, whenever possible. See the Glossary definition for “avoidance areas” in the RMP FEIS. In addition, stream crossings would, whenever possible, use the methods described in Appendix 13, Best Management Practices for Reducing Non-Point Source Pollution. All channel crossings would be constructed during no- or low-flow periods, and low water crossings would be used whenever feasible.

Comment: The realistic options for handling CBM produced water in the Colorado River Basin appear to be limited to: 1. Alternative disposal, i.e., re-injection. 2. Treatment to less than 500 mg/l TDS. 3. Surface discharge accompanied by salinity offset projects, (salt banking). 4. Off-Channel storage provided surface and groundwater impacts can be minimized. The RMP should make an effort to identify potential areas of high saline soils and to prescribe adequate construction practices, sediment control and mitigation measures on lands under your jurisdiction. An effort should also be made to identify saline springs, seeps and abandoned and orphaned wells and recommend measures to address those sources of salinity within the Basin.

Response: Saline soils and project-specific mitigation measures would be determined during the project planning and NEPA process stage.

Comment: According to the U.S. Fish and Wildlife Service, “Surface discharge of produced water with selenium concentrations exceeding 2 ig/L may create a risk for bioaccumulation for fish and sensitive species of aquatic birds” (Long 2002 at unnumbered 11). And yet the DEIS does not present the selenium concentrations for coalbed aquifer groundwaters in the North Platte and Great Divide Basin watersheds. This is crucial baseline information.

Response: Impacts from surface discharge of produced water have been updated in Section 4.17 for the FEIS. Water quality from CBNG (CBM) fields in the RMPPA varies greatly; therefore, generalities have little value for analysis at this scale. All surface discharge of produced waters requires a WYPDES permit issued by the State of Wyoming that specifies limits and monitoring with regard to selenium. Selenium concentrations among other water quality parameters are evaluated with regard to specific project proposals during the NEPA process with consideration of specific WYPDES permit conditions.

Comment: A1-6 BLM apparently only intends to pursue 10 headcut remediation projects (“as needed”) and only plans to restore 25 miles of streams. A33-12 to 13. It is not even clear these projects will occur on the 303(d) waters. BLM needs to greatly upgrade the number of activities it will undertake in all 303(d) watersheds to protect them from further degradation, and to improve their water quality. For example, in these watersheds, BLM should commit to adopting allotment management plans for all allotments in these watersheds. It should commit to not allowing any exceptions to the surface mitigation guidelines shown on page A1-2 within these watersheds, particularly for oil and gas development. The provisions in Appendix 13 should be made mandatory in the 303(d) watersheds, and should be made stipulations so as to ensure their implementation. These are BLM's duties under the Clean Water Act and FLPMA. Will BLM implement these required practices? Why or why not?

Response: The 10 headcut remediation projects were estimated based on typical natural erosion or as a result of traditional land uses, such as livestock grazing, and may or may not be in response to 303(d) listed stream segments. If surface discharge of CBNG-produced waters results in a headcut, the headcut and required remediation would be analyzed within the scope of the CBNG project that led to the erosion or headcut. The BLM is committed to developing AMPs. Changes in AMPs would occur wherever Standards for Healthy Rangeland (USDI, BLM 1997) are not being maintained and the cause of the nonattainment of a standard is attributed to livestock grazing management. The BMPs in Appendix 13, Best Management Practices for Non-Point Pollution Sources, would be implemented, where applicable, as well as other BMPs during implementation of activity level planning. These BMPs could be incorporated into any watershed plans, habitat management plans, or AMPs as necessary to address the recovery of 303(d) listed streams.

Comment: Page 2-96, Alternative 4: “Similar to Alternative 3, reinjecting produced water into the Colorado River Basin and only allowing surface discharge in the North Platte and Great Divide basins that would meet BLM management objectives would result in the least number of water quality standards

exceedances.” This language implies that (1) reinjection is the only water management tool available to Operators in the Colorado River Basin, (2) Operators will not be allowed to surface discharge in any basin other than the North Platte or Great Divide basins and (3) the BLM has the authority to regulate water quality. Recommendation: The BLM should defer to the Wyoming Department of Environmental Quality when dealing with water quality issues. The above language should be amended as follows: As long as the WDEQ's or other participating agencies water quality standards/rules are not exceeded, Operators will be allowed to use the full range of water management tools available including surface discharge, storage, injection or treatment.

Response: Under Alternative 3, management actions in Table 2-1 would restrict options for produced water discharge; the description given is accurate. Under Onshore Order #7 the BLM may approve, deny, or present an alternative for water disposal that meets the purpose and need of the project and present these alternatives in the NEPA analysis. This Onshore Order indicates that injection is generally the preferred method of produced water disposal. The BLM may determine the method of disposal where federal resources are involved, and the State of Wyoming may or may not issue permits for surface discharge and/or injection, as necessary. It is appropriate for the BLM to make a management decision based on this authority, as is done in this document.

Comment: Page 4-263, Water Quality, Water Sheds and Soils: fourth full paragraph; the statement “even with proper oversight by BLM and the WOGCC...oil and gas operations could introduce contaminants into the ground water. Existing development combined with the RFD would increase the potential for such impacts.” Comment This is an extremely far-fetched statement; we question whether BLM has any examples of recent (last 5 to 10 years) events that may have caused such effects to the environment. These two sentences should be deleted. Third full paragraph, first line: “Mineral development activities...would deplete water from the Colorado River and Platte River drainages.” Unless there is scientific evidence to support this statement, it should be deleted.

Response: Cement operations during drilling routinely fail, and there are innumerable wells with casing leaks abandoned by past oil and gas developers scattered throughout the RFO. There have been spills associated with pipeline breaches in the last few years that have required WDEQ remediation and many cases where liners of reserve pits have failed. These impacts to groundwater from new development are not far-fetched; although these impacts are anticipated and disclosed, they are not expected to be significant. The FWS has been (and would continue to be) consulted on water depletions associated with water used for oil and gas development. Uses include drilling, construction, and hydrostatic testing of pipelines. There are no indications that CBNG water withdrawals would result in depletions.

Comment: Page 4-2 Determination of Significance. The following is a direct quote: Significance can be “real” and supportable by fact, or “perceived” and perhaps not fully supportable even with rigorous study. For this analysis, the approach for establishing significance criteria was based on, but not limited to, legal requirements, public perception, monitoring data, and professional judgment. A “perceived” significance that is not fully supportable even with rigorous study is extremely subjective. As a result, mitigation resulting from this unsupported perception cannot be statutorily required or scientifically justifiable. Recommendation: Modify this paragraph as follows: Significance can be real or perceived as long as it is fully supportable by law or fact. For this analysis, the approach for establishing significance criteria was based on legal requirements, public perception supportable by fact, monitoring data and professional judgment.

Response: This section was removed in the RMP FEIS. The text, related to real and perceived impacts, was paraphrased from the CEQ regulations and is appropriate. Consider CEQ regulations at 40 CFR 1508.27, which defines significance. For example, items (b) (4), “The degree to which the effects on the quality of the human environment are likely to be highly controversial”; and (b)(5), “The degree to which

the possible effects on the human environment are highly uncertain or involve unique or unknown risks.” These two items are clearly perceived and subject to value judgments and, therefore, cannot be “fully supportable by law or fact,” and yet 1508.27 recommends using them to determine significance.

Comment: The Western Heritage Alternative would protect wetland and riparian areas by putting floodplains under NSO stipulations, and we urge the BLM to adopt this provision under the Rawlins RMP.

Response: Wetland and riparian areas were not considered for NSOs because of linear features, such as pipelines, utility lines, and roads that may be required to cross these areas. These areas are managed as avoidance areas with a 500-foot buffer (Section A11.2.5). In some ways, this is a stronger protection with the buffer, since avoidance areas may require similar analysis and mitigation as what would be required with an NSO (see the Glossary definition of “avoidance areas”).

Comment: [Albany county Commission resolves to urge the Bureau of Land Management to incorporate the following management vision into its new long term management plan] Requiring that produced waters from coalbed methane drilling be injected into deep strata in ways that do not jeopardize important groundwater aquifers.

Response: Alternative 3 in the RMP FEIS would only allow surface discharge of produced water. This management action was not selected for the Proposed Plan. See the updated impact analysis in Section 4.17 for CBNG development.

Comment: Page 4-264 first paragraph: “Impacts from surface disturbance and disruptive activities would result in degradation of water quality...” Comment: This is followed by a statement of significance, which presumes that the regulatory agencies do not do their job and that the CBNG producers do not comply with the regulations of those agencies. Without supporting facts/citations this should be deleted.

Response: The impact analysis was updated for the RMP FEIS in Section 4.17. Based on information relevant to RFD, the analysis shows that the significance criteria are likely to be exceeded in some locations and at some times under all alternatives. A combination of surface disturbance from multiple operators within a watershed could very well lead to legal significant impacts, i.e., the degradation of water quality beyond the designated uses. NEPA requires the consideration of foreseeable impacts. CFR 1502.22 states that evaluation should be made based on “theoretical approaches or research methods generally accepted in the scientific community.” Roads and construction activities have long been known to increase nonpoint pollution, even when properly constructed. The best available science indicates that development associated with oil and gas activities would increase surface runoff and erosion rates, and in some cases and locations would lead to the degradation of water quality beyond its designated use. See the Muddy Creek watershed description in Section A11.1.1.

Comment: Page 2-26, Table 2-1: Stream improvement structures may need to be maintained, and failed structures that impede fisheries and other resources may need to be removed. Stock watering projects (spring, exclosures, pipeline, stock tanks) may need to be implemented or enhanced to reduce or eliminate riparian impacts in some areas and to provide livestock water in areas of riparian exclosures. If coalbed methane operations are contributing to erosion and sediment loading to streams, then the funding of livestock water impoundments would be one way to mitigate impacts resulting from coalbed methane development.

Response: It is inappropriate to expect one public land use to mitigate the impacts of another. There are situations that BLM attaches COAs that specify changes in fencing or other infrastructure, which represent an attempt to mitigate the direct or indirect impacts from an oil and gas activity. However, in

most cases it would be ineffective to use CBNG (CBM) funding for livestock impoundments. These needs can be met with other structures or facilities funded by the BLM and permittees. Where needed, fully contained livestock water structures can be approved at any time when the permittee requests them, and it is convenient for the CBNG producer, i.e., win-win solutions. These types of facilities are allowed and planned for in the RMP FEIS.

Comment: As you note on page 4-263, cumulative effects of oil and gas and CBNG development may result in significant impacts on water quality in some watersheds of the Colorado River and North Platte River system. These potential impacts should be quantified and disclosed so that we can ensure that development scenarios will meet in-stream water quality standards, both in Wyoming and adjacent states.

Response: Baseline water quality data was added to the RMP FEIS in section 3.17. There is not enough baseline data to quantify impacts completely in the RMP FEIS. The BLM is collecting baseline data where the BLM can, and NEPA requires the BLM to disclose potential impacts using best available information which has been done. The BLM would like to work more closely with all involved parties to establish better monitoring on critical waterbodies.

Comment: Under this alternative, the BLM would plan ahead for drought by establishing a Drought Contingency Plan complete with standards for monitoring drought conditions in order to diagnose the onset of drought conditions before they become severe, and adaptive management planning that allows range destocking in a manner that protects the land while also remaining sensitive to the challenges that may face grazing permittees during drought periods. We applaud BLM's past efforts in this regard, and urge the agency to formalize the requirement for Drought Management Plans for allotments as well as all other permitted projects.

Response: The BLM actively works with permittees in livestock grazing practices, especially during drought conditions. Rangeland health is assessed using Standards for Rangeland Health. If an allotment was failing during drought or at other times because of grazing practices, the amount, timing, and duration of livestock use can be changed to allow the allotment to meet Standards for Rangeland Health. Currently, the RFO does not see a need for specific drought management plans; however they could certainly be a part of an allotment plan under current guidance.

Comment: Water discharge should not adversely affect the systems that the water is discharged into. -- Water should be purified/desalinized before discharge or reinjection in order to minimize over-salinization of the system.

Response: The State of Wyoming permits injection water wells. Typically the state only approves permits into formations with lower quality water than the water that is being injected; therefore increasing salinity in injection formations is not likely and in most cases should not require treatment of injection waters.

Comment: My concerns about your preferred Alternative 4 is that significant degradation of water quality, along with accelerated soil erosion, is anticipated in the North Platte valley and parts of the Red Desert.

Response: Significant degradation of water quality is not anticipated under Alternative 4 in the RMP FEIS. See the Summary of Impacts Table, in which two points in the summary should be noted. The first is that local impacts would occur under any alternative, which does not constitute a significant degradation of water quality. The BLM can authorize activities that will change water quality; however impacts must be disclosed, which is what BLM has done in Chapter 4. Second, allowing surface discharge in the North Platte River Basin and the Red Desert would be subject to project-specific NEPA

and would require WPDES permits for surface discharges. These processes would evaluate significance again during the NEPA process at the activity planning level.

Comment: There are many communities in the planning area that are developing local source water protection plans. We suggest that BLM consult with the DEQ/WQD and the Wyoming Association of Rural Water Systems (WARWS) during the development of their planning document to ensure that drinking water supplies will be protected. To the extent BLM has authority over planning activities in these areas; BLM should minimize and/or mitigate adverse impacts on public drinking water supplies. Protection plans should address surface water, springs, wells, watersheds, or aquifers or any combination of the above.

Response: DEQ was consulted in the development of the RMP DEIS and again during development of the RMP FEIS. See the updated RMP FEIS section A11.2.6 - Source Water and Wellhead Protection for a description of communities in the planning area with water resources. Management actions common to all alternatives includes special protections in the Encampment Watershed, partly for municipal water sources (Table 2-1).

Comment: 3-139 On page A1 1-7 BLM states that depletions “are handled for individual projects and considered during the NEPA process.” Presumably this is true of both the Colorado River fish species and the Platte River species. Is that true? What does it mean that depletions are “handled” at the individual project stage? For what projects have water depletions been “handled” in RFO? Does this mean depletion fees have been paid, either for the Colorado River species or the Platte River species? When have depletions fees been paid, and how much was paid into the depletion fee fund? We have inquired of the Fish and Wildlife Service and the only records they have of depletion fees being paid are for a few wells in the Platte River drainage in the Casper Field Office and a few wells in the Pinedale/Kemmerer Field Offices. Have any depletion fees ever been paid in the RFO for any oil and gas project, or even an individual oil and gas well? Why or why not? What projects or wells? In our view BLM should simply establish a policy in the RMP that no well will be approved until the proponent of the well pays the required fee into the depletion fee fund and provides evidence of such. Will BLM do this or not? Why or why not? What will it do to ensure depletion fees are actually paid? If the 8,822 wells anticipated by BLM are actually drilled, depletions could easily reach 18,000 acre-feet. Does BLM agree with this estimate? Why or why not? What will it do to ensure it ESA obligations are met in the face of this level of depletions?

Response: The BLM cannot comment on other plans without knowing the assumptions used to determine if a depletion occurred. BLM does not concur that “depletions could easily reach 18,000 acre-feet.” This estimate is flawed on several grounds: (1) depletions are considered on an annual basis; (2) as stated in Appendix 11, Water Quality Within the RMPPA and River System Depletions, water depletions are typically calculated based on a monthly mass balance and can include water stored in headwaters and/or water lost through consumptive use or evaporation because of the activity in the year in which they occur; and finally (3) much of the water used for oil and gas activities comes from groundwater sources that may or may not be connected to surface waters. To identify these technical details requires data collection, and in some cases modeling, to make an informed decision. The BLM recognizes that oil and gas development activities use water. However, water use alone is not a depletion. Some projects use water sources unconnected to surface waters (i.e., groundwater aquifers isolated from surface sources) for drilling and construction activities. If water sources are anticipated to be connected to surface waters, such as shallow groundwater sources, or to be directly from surface sources, depletions are calculated and disclosed in the project-specific NEPA, and if applicable, depletion fees are paid by the project proponent as a COA. As stated above, all these decisions are subject to review by the USFWS during the consultation process. This is why the RFO considers depletions at the activity planning level.

Comment: We must strongly encourage BLM to not re-invent the wheel on each EIS. For example, in the PRB, a working group approach was taken to define groundwater protection strategies after it was realized that CBNG discharges had the potential to adversely affect high quality groundwater aquifers. From lessons learned, these kinds of strategies should be developed before intense development is underway. Several of the guidance documents for groundwater protection can be found on DEQ's web page at <http://deq.state.wy.us/wqd/groundwater/pollution.asp>

Response: The RMP FEIS provides for these types of coordinated activities through the use of APWGs (see Section 2.7.2, Activity Plan Working Groups) and available resources would be used to develop groundwater protection strategies, procedures, etc., that would be considered during project-level environmental analysis during implementation of the RMP.

Comment: The DEIS fails to describe the character, quality, and use of the groundwater resource within the planning area. DEQ's groundwater susceptibility maps should be used as a tool to identify areas where precautions are needed to protect groundwater. These maps can be accessed on the DEQ web page.

Response: Groundwater susceptibility maps are used during implementation of the RMP at the project decision level to evaluate the need for lined reserve pits, among other things. These data are based on a very limited number of wells and therefore have limited utility at this planning level.

Comment: The planning document should disclose how BLM plans to handle toxic or hazardous chemicals and pesticides around live water and drainages. We recommend that default buffer zones should be created with flexibility to approved storage and use of these chemicals within these buffer zones under special conditions, (see the Kemmerer draft RMP).

Response: The 500-foot avoidance areas around perennial waters, wetlands, and identified floodplains would effectively remove the possibility of chemical storage facilities. This would adequately protect these areas from chemical storage. Chemical use would follow requirements in BLM Handbook H-9011, which contains buffer guidelines, including no mixing of chemicals within 500 feet of open water. BLM implementation of guidance contained in BLM Handbook H-9011 would adequately protect surface waters. BLM manuals and handbooks are incorporated by reference in the Introduction to Section 1.4, Relevant Statutes, Limitations, and Guidelines.

Comment: A13-1 To this list of BMP websites should be added reference to BLM IM No. 2004-194 and the website it references. See generally <http://www.bhn.gov/bmp/>. Moreover, IM 2004-194 is mandatory, requiring BLM to impose BMPs whenever appropriate. See also IM 2004-110 Change 1. The effect of this is to make the requirement to use BMPs to reduce nonpoint source pollution mandatory, not “advisory rather than regulatory” as BLM claims. BLM must impose BMPs wherever appropriate, and the RMP should so require. Moreover, the RMP should provide guidance on when BMPs are “appropriate.” We believe they are appropriate whenever they aid in preventing unnecessary or undue degradation of the public lands, as required by FLPMA. Under what circumstances does BLM view the requirement to use a BMP as “appropriate”?

Response: BLM Instruction Memorandum No. 2004-194 and the BLM website are cited in the updated version of Appendix 13 in the RMP FEIS. BMPs for surface disturbing activities are described primarily in Appendices 1, 13, and 15. Appendix 13 deals with BMPs for nonpoint source pollution. Additional references to appendices containing BMPs have been added to the management actions in Table 2-1, Detailed Comparison of Alternatives. As stated in Appendix 13 BMPs, BLM policy allows for the application of BMPs as COAs for BLM-approved actions. Once the BMPs become COAs or are included in a plan of action for a project, they are mandatory, and BLM would enforce adherence to the BMPs and any other COA. Individual projects may specify different BMPs as part of approval because of unique

resources or local conditions. This is by design to allow for flexibility in the application of BMPs and the ability to adopt new BMPs as identified in the future.

Comment: Page A4-29, Condensate Pipelines: Condensate pipelines also run the environmental risk of leaking which results in potential soil and groundwater contamination. Comment: Include a discussion in the analysis regarding this aspect of condensate pipelines.

Response: All pipelines include some level of environmental risk of leaking during their design life. This potential impact was described in section 4.17 of the RMP FEIS in the Minerals section of Impacts Common to All Alternatives for Soils, Water Quality and Watershed Resources.

Comment: Chapter 2, Water Quality, Watershed, and Soils Management Table, Page 66, Third Column, Fourth Row. The DEIS states that, under the Preferred Alternative, new permanent roads or structures would not be allowed within the Encampment River Watershed. The Service suggests that the Bureau clarify what would be allowed in regards to structures within this watershed. In particular the Service suggests that the Bureau answer these questions regarding this statement: (1) Would all structures not be allowed or only new structures? (2) Would the exclusion of new roads or structures be coordinated with the Forest Service to preserve the integrity of other federal lands in this watershed?

Response: (1) The preferred management action selected for the RMP FEIS would be to intensively manage surface disturbing activities such as new roads and facilities as well as grazing management and forestry actions to meet watershed objectives. Therefore, new structures would be considered and evaluated for potential impacts to water resources within the watershed. (2) It is an assumption for the RMP FEIS that all decisions pertain only to management actions that are approved by BLM on BLM administered public lands. Appropriate coordination with adjacent landowners would occur on a case-by-case basis, as necessary.

Comment: Procedures for implementing corrective actions in the event of accidental spills or other activities (e.g. leakage from pits and ponds) that threaten to enter waters of the state should be described, including implementing agency responsibilities and contacts. Operators must comply with the spill response and reporting requirements contained in DEQ regulations, WQD, Chapter Four.

Response: BLM procedures for remediation of accidental spills and hazards are included in updated Appendix 32, Hazard Management and Resource Restoration Program, in the RMP FEIS.

Wild Horses

Comment: The RMP language referencing wild horses does not comport with the Consent Decree entered into by and between the State and BLM. In fact, the provided language essentially justifies the elimination of 30,000 AUMs because of increased wild horse numbers. Clearly, the State cannot abide any such reduction. The final RMP must follow and provide management in accordance with the Consent Decree.

Response: The approximate number of AUMs is 30,000 that would be unavailable to livestock grazing if the lack of predator control on public land forced every sheep operator in the RMPPA out of business, the number of AUMs is 1,140 that would be unavailable to livestock grazing, if the proposed increase in wild horse numbers in the Lost Creek herd in Alternative 3 were determined to be competitive and resulted in the need to reduce or suspend livestock grazing permits. The BLM does not propose to reduce the amount of livestock grazing use that is currently being authorized in the HMAs because of the increase of wild horses in the Lost Creek HMA. The management proposed in the RMP includes management of the populations within the parameters of the Consent Decree. The impact analysis in Chapter 4, Livestock Grazing, and the summary text in Table 2-4, Summary Comparison of Impacts, Impacts on Livestock Grazing, in the RMP FEIS have been updated to more accurately describe the impact of AUM loss to livestock grazing that could occur under Alternative 3.

Comment: APPENDIX 12 Wild Horse Management History in State of Wyoming and Rawlins RMPPA There is no discussion of the significance of the RSGA 1981 court order on the wild horse program in Wyoming. There is limited discussion of the impact of the State of Wyoming Consent Decree on recent events in wild horses program in Wyoming. The efforts and concern of RSGA, and State of Wyoming, have been the reason the BLM has had a successful wild horse program in Wyoming. Appendix 12 has good discussion of the program, but it has avoided giving credit to the RSGA and State of Wyoming for the litigation that has been the clout-for BLM management to maintain an aggressive wild horse program in Wyoming for almost 30 years.

Response: The reference to RSGA on page A12-4 is included in a general history of wild horse management in the State of Wyoming and is adequate for this document. The RSGA is not a landowner or grazing permittee in any Rawlins wild horse HMA.

Comment: The wild horse population should be gathered annually to maintain the current AML in Herd Management area. Changes in the class of livestock grazed within HMAs should not be determined by wild horses. --While maintaining the New Iberian phenotype is a commendable goal, increasing the herd AML in the Lost Creek HMA is not what is best for the resource. --Analyze the effect of wild horses on wildlife and range quality. --Wild horses should be managed to meet the Wyoming Standards for Healthy Rangelands

Response: Periodic gathering, rather than annual gathering, is the choice of BLM for the following reasons: The requirements in the Act to employ minimum feasible management, the tendency of horses to avoid being caught if pursued too regularly, the relative costs of periodic versus annual gathering, the lack of sufficient resources to conduct a program of annual gathering, and the limitation of the impact of gathering activities on other resources. Change in class of livestock in HMAs is an additional factor that is considered in evaluating the desirability of approving changes in class of livestock to be grazed on the public lands. The proposed increase in the AML in Alternative 3 is offered to address genetic concerns, not resource issues. The approach listed in Table 2-1, Detailed Comparison of Alternatives, under Alternative 4 responds to your concern. Wild horse management must also meet the Wyoming Standards for Healthy Rangelands, as referred to in Section 2.1, Introduction in the RMP FEIS.

Comment: Suggest that wild horses not be the focus when determining the effects of changing class of livestock, but rather strive to achieve healthy rangelands. Would prefer the more restrictive language presented for the same subject in Alt. 3 for the Livestock Grazing Section. [Page 4-181, Section: 4.15.4, Para.7]

Response: Change in class of livestock in HMAs is an additional factor that is considered in evaluating the desirability of approving changes in class of livestock to be grazed on the public lands. The proposed increase in the AML in Alternative 3 is offered to address genetic concerns, not resource issues. The approach listed in Table 2-1, Detailed Comparison of Alternatives, under Alternative 4 responds to your concern. Wild horse management must also meet the Wyoming Standards for Healthy Rangelands, as referred to in Section 2.1, Introduction in the RMP FEIS.

Comment: It is incumbent upon the BLM to educate officials of other governmental agencies and the general public about the importance and significance of wild horses and to ensure that their protection is not compromised in a rush to placate commercial/private interests.

Comment: FLPMA specifically acknowledges that if there are conflicts between resource uses, or a land use activity may result in irreversible or irretrievable impacts to the environment, the BLM may restrict or prohibit some land uses in specific areas. Hence, at least one alternative must analyze comprehensively the reduction and/or removal of livestock in the Lost Creek HMA as well as the elimination of other factors that would result in adverse impacts to this herd in order to ensure the protection and preservation of these unique animals. As mentioned previously, this HMA warrants consideration as a wild horse range.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: On pg. ES-13, we do not agree with the statement that AMLs were established in 1994 by “extensive monitoring”. Please define the term “extensive monitoring” and provide references to support that quantitative data that fit this definition is on file to support the AMLs.

Response: The AMLs were established in 1994. The extensive monitoring effort that was employed in their determination is described in the publication, Great Divide Resource Area Wild Horse Herd Management Area Evaluation, Environmental Analysis and Capture Plan (1994) and was reexamined in the Environmental Assessment, Maintaining Viable Populations in Herd Management Areas Within the Rawlins Field Office Management Area (2000).

Comment: The DEIS must provide the public with information concerning the recent amendment to the WFHBA that requires the BLM to sell wild horses older than 10 years of age or who have not been adopted after three attempts without restriction. Analysis of this change to the law requires a re-examination of how wild horses are being managed. In fact, this development should prompt the BLM to seriously consider one of the proposed actions outlined in the agency’s 1992 Strategic Plan for the Management of Wild Horses and Burros on Public Lands seriously viz., each BLM state office should identify at least one area where unadoptable animals can be returned to the wild. The EIS must analyze these issues and various alternatives that will guarantee the long-term humane treatment of wild horses removed from public lands.

Response: BLM thanks you for your comment. However, the content of the comments is not within the scope of the Rawlins RMP planning process.

Comment: Legally, wild horses can only be removed if it is determined that there is an “excess” of animals who must be removed in order to preserve and maintain a thriving natural ecological balance. Yet, the DEIS indicates that a routine gather cycle is under development (DEIS Appendix 12) and would occur about every 3 to 4 years (DEIS p. 4-203). The EIS must examine whether wild horse removals in the past were required to preserve/maintain a thriving natural ecological balance and/or whether other actions needed to be taken such as the long-term removal of livestock. Wild horses have often been used as the scapegoats for habitat degradation when BLM’s own Environmental Assessments and independent studies indicate that it is livestock, not wild horses, responsible for the problem. However, the BLM rarely takes action to reduce or remove livestock during either the short or long term until the problems reach crisis proportions. Instead, the agency often allows current grazing use and merely adjusts the grazing seasons or chooses to expend thousands or hundreds of thousands of dollars in range “improvements” to maintain a few hundred cows. The issue of whether grazing is an appropriate use of specific public land areas is rarely considered, despite the fact that the Federal Land Policy and Management Act (FLPMA) requires such consideration. The EIS must analyze various monitoring methodologies and provide a description of the one currently used by the BLM. The EIS must discuss how monitoring distinguishes (if it does with any certitude) forage consumption patterns between different species of animals -- specifically between wild horses, livestock and wildlife -- by analyzing their numbers and distribution at various times of the year; otherwise, the concept of managing for a “thriving natural ecological balance” becomes meaningless. And, the EIS must provide a comprehensive analysis of alternatives that will both reduce and totally remove livestock from wild horse HMAs.

Response: The conclusion that the RMP EIS must address certain things is well beyond the scope of an RMP update such as that being undertaken. The comments on range improvements and livestock grazing are reflective of one point of view regarding public land use. The suggestion that FLPMA requirements have not already been met in allowing livestock grazing to continue on the public lands in the RMPPA is misleading. Additionally, it is worthy of note that while there has never been a removal of horses in the RMPPA to any level below AML to respond to a resource concern, livestock actual use levels in HMAs have been limited through voluntary nonuse agreements.

Comment: Page 4-241, Wild Horse Management: “...there would be an increase in AML of 95 horses in the Lost Creek HMA.” Comment: There is no justification provided for adding 95 horses to the AML for the Lost Creek HMA? Given that forage conditions are already abused and the BLM intends to “intensely manage” all other activities to protect riparian areas, fisheries and wildlife, how can this increase in horse numbers be justified?

Response: Section 4-241 is the impact analysis. The reason for the proposed increase is discussed in Chapter 2 of the RMP FEIS and is not repeated in Chapter 4.

Comment: Major Land Uses. “Wild horse use” is not a defined, major land use under 43 CFR 1702(1). This should be deleted from the list of major land uses, noting instead, “feral horse management” is another significant activity carried out in the Rawlins RMPPA. [Page ES-2]

Response: The list under Issues and Conflicts in the Executive Summary in the RMP FEIS does not purport to be a representation of Section 103(l) Definitions, in the FLPMA (43 U.S.C. 1702). The list is an acknowledgement of conflicting demands for consumptive and nonconsumptive uses of the public lands that result from a variety of laws, regulations, and policies that influence management of the public lands by the BLM. The term “wild horse” has been established by law, while the term “feral horse management” has not.

Comment: When will “periodic gathers” be done? When the horse population is over objective? At objective? When resource damage is seen? “Periodic gathers” should be defined. [Page 2-16, Section: 2.13.15, Para 1]

Response: “Periodic gathers” is defined and discussed in Appendix 12, Managing Wild Horse Populations in the RMPPA. The section entitled Population Management Actions in the RMPPA states, in part, “The upper and lower limits of the AML would be reevaluated and adjusted to ensure that a thriving ecological balance would be maintained.”

Comment: This Final should also state a firm commitment to the resources necessary to maintain horse numbers at or below AML and state a continued support for the policy of prompt removal of any BLM horse found outside of HMA boundaries.

Response: The RMP FEIS is in conformance with existing law, and regulations. Policy and goals, objectives, and management actions in Chapter 2 of the document are adequate to ensure that those concerns are addressed.

Comment: The DEIS states that if evaluation of monitoring data were to indicate that wild horse management objectives in the land use plan were not being met, population adjustments may become necessary (DEIS, A12-1), further indicating that the EIS must examine AMLs and not arbitrarily adopt the socially and politically set numbers that are now more than a decade old. The EIS must clarify the criteria the BLM uses to establish AMLs and it must examine alternatives that will considerably increase the AML for wild horses. Moreover, the RMP must acknowledge that AMLs are subject to adjustment based upon rangeland monitoring. The AML set in a land use plan is not a final population objective; it is merely an initial number set at one point in time, subject to change based upon ongoing monitoring. It is a starting point only.

Response: The commenter asserts that the BLM must analyze a number of alternatives specific to wild horses and to some other aspects of public land use and management. To have analyzed this myriad of alternatives would have been inconsistent with the approach to alternative development described in some detail in Chapter 2 in the RMP FEIS. Management actions and monitoring listed in Chapter 2 of the RMP FEIS meet the goals and objectives identified in Chapter 2 consistent with current law, regulation, and policy.

Comment: Please explain why the term “Herd Area” is defined differently than the term “Herd Management Area” and provide the source authority for that distinction if the Final document continues to define both terms.

Response: The two terms are defined in the Glossary of the RMP FEIS. The distinction is necessary and will continue to be employed. The source authority for the use of these terms is found at 43 CFR 4700.0-5(d) and 43 CFR 4710.3.

Comment: Page 4-44 Livestock grazing and wild horses; “BLM would continue to monitor vegetation and habitat condition to ensure that a thriving natural ecological balance and the multiple-use relationship that existed in 1971 are maintained.” Comment: Conditions in 1971 did not represent “a thriving natural ecological balance.” It does not make sense to strive to attain the same range condition that occurred in 1971.

Response: The reader has misunderstood the statement. The multiple use relationship that existed in 1971 is what is to be maintained; no reference is intended to range conditions that existed in 1971.

Comment: In order to establish AMLs for these herds, the EIS must analyze the appropriate allocation of range resources between wild horses and other range values and other range users, especially livestock, in the context of the statutory mandate to engage in only “minimum feasible level” of management activities. However, the DEIS has failed to provide a comparison of forage allocation between wild horses, livestock and wildlife in HAs/HMAs. The DEIS indicates that livestock actual use has practically doubled for the RMPPA from 1991 to 2000 -- from 187,755 AUMs in 1991 to 316,184 AUMS in 2000. (DEIS, pp. 3-24-25) Yet, it is impossible to determine from the information provided in the DEIS how many of these livestock AUMs fall within the boundaries of wild horse HMAs. Thus, the public is unable to assess whether the interests of wild horses are indeed being considered comparably with other resource uses. Typically wild horses are allocated only a fraction of the forage that is allocated to livestock.

Response: The statutory mandate to engage in only the minimum feasible level of management activities is found in the WFHBA and is understood by the BLM to mean that horses within HMAs are to be managed as wild animals, rather than as domestic livestock, and is not understood to be connected to the relative allocation of forage among the various authorized uses of the public resources.

Comment: Despite the terms of the Consent Decree, the Rawlins DEIS provides for changes in AMLs based upon future monitoring (page 2-16) and notes increases in annual populations until gathers are permitted “every 3-4 years.” Given the current populations of wild horses, as noted in the DEIS, and given the DEIS predictions of an annual population increase of 16 percent for the Adobe Town HMA and 18 percent increases for the Lost Creek and Stewart Creek HMAs, the wild horse populations for these three areas will equal 1,757 in three years and 2,046 in four years. Those compare to a total AML of 920. Those projected populations violate both the spirit and the letter of the consent decree.

Response: The approximate number of AUMs is 30,000 that would be unavailable to livestock grazing, if the lack of predator control on public land forced every sheep operator in the RMPPA out of business, and the number of AUMs is 1,140 that would be unavailable to livestock grazing if the proposed increase in wild horse numbers in the Lost Creek herd in Alternative 3 were determined to be competitive and resulted in the need to reduce or suspend livestock grazing permits. The BLM does not propose to reduce the amount of livestock grazing use that is currently being authorized in the HMAs because of the increase of wild horses in the Lost Creek HMA. The management proposed in the RMP includes management of the populations within the parameters of the Consent Decree. The impact analysis in Chapter 4, Livestock Grazing, and the summary text in Table 2-4, Summary Comparison of Impacts, Impacts on Livestock Grazing, in the RMP FEIS have been updated to more accurately describe the impact of AUM loss to livestock grazing that could occur under Alternative 3. The calculations for future populations would be correct, if the populations were not first reduced to the lower limits of the AMLs. Such is the spirit and intent of the Consent Decree: first reduce the populations and then maintain them within the ranges established for them. Those ranges combine for totals of 795 to 1,057 with an average of 920. Proposed management assumes these lower limits as the starting points for the cycles.

Comment: The DEIS assumes that any wild horses above the current Appropriate Management Levels (AMLs) are “excess” as defined by the WFHBA, and are, therefore, subject to removal. Placing aside the fact that the current AMLs were established more than ten years ago, the RMP planning process presents the opportunity to revisit established AMLs according to agency officials. Each time wild horse advocates have challenged AMLs during environmental reviews of activity planning or specific projects, we have been informed by the BLM that AMLs are set during the RMP process, the purpose of which is to make land use allocations and to provide general future management direction for managing specific areas of land. The DEIS specifically states that the BLM monitors the wild horse population to ensure that the population meets the population management objectives set in the land use plan. (DEIS, Appendix 12) As stated in the 1996 Report of the Review Team on Forage Allocations for Wild Horses and Livestock, “... ‘good science’ can help define the extent of forage resource as well as the possible options for utilizing

that resource and for maintaining a ‘thriving, natural ecological balance.’ However, the ultimate decision on the balance between wild horses and livestock is a social and political one based on public perception of values.” Because values and demographics change and the general public (not merely local vested interests) is more engaged in planning efforts due to the outreach efforts of the BLM, it is imperative that agency officials utilize this EIS process as the opportunity to reassess AMLs for the herds in question.

Response: Wild horse numbers above the established AMLs are excess, as defined by the WFHBA, and therefore, subject to removal (see Section 1.3.2, Planning Criteria). Revisiting AMLs and HMAs in the RMP planning process does not require changing AML numbers or HMA boundaries. The alternative development process described in Chapter 2, which resulted in the alternatives selected for detailed analysis in the RMP FEIS, considered monitoring that has occurred between 1994 and now, in determining the need to adjust wild horse AMLs. Alternate levels of use for livestock were not analyzed, as they are not proposed.

Comment: The wild horse herd management area surrounding the Adobe Town Wilderness Area covers approximately 20 townships. What management guidelines is BLM proposing for this area? (Map 2-21)

Response: Please refer to the Adobe Town parts of the Wild Horse section of Chapter 2 and Chapter 3 of the RMP FEIS for the proposed management guidelines. Appendix 12 contains some additional definitions and details.

Comment: Page 2-16; Wild Horses; The DEIS discusses only the AMLs for the Adobe Town and Stewart Creek HMA. No information is provided for the Lose Creek HMA of 70. Comment: Add information regarding management of the Lost Creek HMA.

Response: The Lost Creek HMA management actions vary by alternative, and the Adobe Town and Stewart Creek HMA management actions are common to all alternatives. The Actions Common to All Alternatives and the Management Actions by Alternative are contained in Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS.

Comment: If certain herds have unique genetic characteristics such as the Lost Creek herd (DEIS, p. 3-125) or an outstanding opportunity for public viewing of the animals exists (as is the case with the Stewart Creek wild horse viewing tour), the EIS must analyze whether it is desirable to designate these areas as wild horse ranges specifically to serve as sanctuaries for the animals’ protection and preservation as provided for in the WFHBA. While this authority has yet to be exercised by the Wyoming BLM, the recently acquired information regarding the rare genetic types found within the Lost Creek herd and at least some horses in the Stewart Creek herd, requires such an alternative be comprehensively analyzed in the EIS.

Response: The commenter repeatedly asserts that the RMP FEIS must analyze a number of alternatives very specific to wild horses and to some other aspects of public land use and management. To do so would be inconsistent with the approach to alternative development described in some detail in Chapter 2. At present, special designation for the Lost Creek HMA is not considered under any alternative in the RMP FEIS. The impact analysis in Chapter 4 does not support a need for a special designation for the Lost Creek herd.

Comment: Despite the diversity, vulnerability and uniqueness of the resources affected by the RRMP and the controversy surrounding their management, the BLM has elected to analyze only four alternatives, including the legally required “No Action” alternative. With respect to wild horses in particular, the DEIS fails to analyze an alternative that would allow the boundaries of the three current Herd Management Areas (HMAs) to be expanded to encompass acreage within originally designated

Herd Areas (HAs) and/or to redraw the original HA boundaries in light of the current knowledge about migratory behavior and biotic needs of wild horses in the area, as provided for in BLM Manual 1622. The decision not to analyze such an option was based upon two criteria: (1) the conditions within the HAs have not changed significantly from when the HAs were originally evaluated (viz., checkerboard lands) and (2) establishing HMAs within these HAs would require allocation of sufficient forage to sustain a population of wild horses on public lands, thereby removing some or all of the permitted livestock from the HAs. (DEIS, p. 2-3) However at the same time, the DEIS acknowledges that land exchanges that would serve to consolidate ownership to form more logical and efficient management areas are possible. (DEIS, Appendix 6) The DEIS must analyze at least one alternative that identifies opportunities to improve the natural quality and quantity of wild horse habitat through acquiring essential areas via the land tenure adjustments/exchange program viz., land consolidation through acquisition efforts by means of purchases, swaps, and/or negotiation of conservation easements. Since passage of the Wild Free-Roaming Horses and Burros Act (WFHBA) in 1971, wild horses have lost literally millions of acres of habitat in Wyoming because of land jurisdictional issues. The DEIS must analyze at least one alternative that will work towards restoring wild horses into these areas.

Response: The commenter asserts that the BLM must analyze a number of alternatives specific to wild horses and to some other aspects of public land use and management. To have analyzed this myriad of alternatives would have been inconsistent with the approach to alternative development described in some detail in Chapter 2 in the RMP FEIS, which includes an alternative that was eliminated from detailed analysis, which specifically addresses many of the points raised in the comment. Appendix 6, Land Exchange, Acquisition, and Disposal Criteria, in the RMP FEIS states that land tenure adjustments would only be pursued with willing parties. The assertion that wild horses have lost literally millions of acres of habitat in Wyoming because of land jurisdictional issues is not supported by historical data. In 1971, horses occupied some areas not legally available to them. Since then, the amount of habitat legally available and the numbers of horses legally designated as wild and free-roaming in Wyoming has actually increased. Additional detail is provided in Appendix 12, Managing Wild Horse Populations, in the Rawlins RMPPA.

Comment: The BLM has indefensibly predetermined forage allocation in the DEIS by stating that one of the management actions that is common to all alternatives is that the current amounts, kinds and seasons of livestock grazing would be authorized until monitoring indicates a grazing adjustment is necessary. (DEIS, p. 2-8) The DEIS further states that the amount of livestock use on public lands is anticipated to remain stable at the 10-year average (DEIS, p. 4-203) and that the AMLs for the Adobe Town and Stewart Creek herds would remain at 700 and 150 animals respectively. (DEIS, p. 2-16) The pre-decisional nature of these determinations violate NEPA, and arguably, makes the case that the BLM has repeatedly misinformed the public about how and when AMLs are established.

Response: The purpose of the RMP EIS is not to analyze various allocations of forage, as the land use plan revision is not driven by any desire to reallocate that forage. The forage allocation is presented as one of the components of the baseline, against which the other changes in land use are being considered. That relationship is addressed in Issue 7 of Section 1.3.1 of the RMP FEIS. The BLM has repeatedly informed the public about how and when AMLs are established and explained the process in numerous planning and environmental documents produced by the Rawlins Field Office.

Comment: APPENDIX 12 Wild Horse Management History in State of Wyoming and Rawlins RMPPA The narrative is not clear if the numbers discussed are for wild horses in Wyoming, or just Rawlins. A reader familiar with the history of wild horses in Wyoming may understand, but others may not. This should be clarified.

Response: BLM feels that the differences are adequately noted, with references in the discussion and footnotes to the tables.

Comment: On pg. A12-5, Please provide an explanation for the information contained in the “bullet” statements on this page. Why has average herd size increased from 147 to 1971? How could areas of public lands available for horse use have increased since 1971. Where are these increases located? Why are 846,243 acres of private lands now considered “available for legal use” by horses? Where are these lands located?

Response: The numbers here come from an analysis of annual reports (Public Land Statistics and the annual Wild Horse and Burro [WH&B] reports) for the period. The increase in herd size is from 147 to 197, not 1,971. The increase in public lands comes from the comparison of the acreage in herd areas in 1971 with the present-day acreage in HMAs. In 1971, there were no agreements with private landowners to allow horses on their private lands. Now, there are some, most noteworthy, the RSGA agreement.

Comment: Page 4-255, Livestock Grazing: Comment: Last paragraph/last sentence -- The increased number of horses in the Lost Creek HMA eliminates 2445 permitted sheep AUMs. Again, no justification has been provided for increasing the horse herd objectives.

Response: Section 4-255 is the impact analysis. The reason for the proposed increase is discussed in Chapter 2 of the FEIS and not repeated in Chapter 4.

Comment: There are 316,184 livestock (table 3-5: 3-24) vs. 1,241 Wild horses (Table 3-38; 3-124) of which 143 are in Lost Creek (Spanish Colonial). In effect you have a 300 (livestock)/ 1 (wild horses) ratio. Therefore: with a 300/1 ratio, with livestock and horses in direct competition, which do you think will do the most damage to the vegetation? #1) Forage availability is met as far as significant criteria is concerned. Therefore, remove any and all livestock off the Lost Creek Wild Horse Sanctuary.

Response: The above ratio is calculated for the entire RMPPA and not just the HMAs and is therefore not representative. Regular, periodic monitoring—described in Appendix 8, Monitoring Methods to Assess Wyoming Standards and Guidelines for Healthy Rangelands, and Appendix 12, Managing Wild Horse Populations, in the Rawlins RMPPA—identifies site-specific concerns regarding competition among species for forage. Additionally, there is no Lost Creek Wild Horse Sanctuary, existing or proposed.

Comment: P. ES-13 We also comment that the identification of “New World Iberian” genetic genotype in the Lost Creek Herd Area is no justification by itself to increase the size of this AML by 95 head of horses. The current AML provides for a viable herd, and it is our comment that these AMLs should not be increased. (See BLM narrative on pg. 4-205). Also, on pg. 4-205, what does (BLM 2001b) mean? Support for our comment is found in this draft in the middle paragraph on pg. A12-4.

Response: Alternative 3 presents the possibility of increasing the AML in Lost Creek to 165 and analyzes the impacts of the AML increase on wild horses and other resources. The Proposed Plan in the RMP FEIS reflects more current information on the management needs of the Lost Creek population and does not propose an increase of the AML to 165. “(BLM 2001b)” is a literature citation.

Comment: Considering that the acreage for wild horse herds in Wyoming, the state with the second largest population of wild horses in the West, has been reduced by more than half since passage of the WFHBA and that the AML set for the entire state is a paltry 3,263 animals with a mere 920 animals for the HMAs (containing 929,000 acres) within the RMPPA, any alternative that would further reduce AMLs or HMA acreage is unacceptable and is a clear sign that the agency has lost sight of its mandate to protect these animals. Although the BLM is required to ensure that all actions must comply with laws,

executive orders and regulations, we have found the agency routinely sacrifices the interests of wild horses for those of other uses. Prominently displaying photos of wild horses on the cover of the DEIS does not camouflage the agency's abdication of its legal and ethical responsibility to protect as well as manage wild horses as integral components of the natural system of public lands. The BLM routinely appeals to its multiple use directive as a convenient ploy to further reduce wild horse numbers and habitat. It is time for the BLM to use the same mandate to eliminate other uses to protect wild horses. The welfare of wild horses depends upon the BLM fully exercising its authority to take action to afford these animals the greatest protection possible as Congress and the public clearly intended by enacting the WFHBA. Integral components does not mean token components. The EIS must comprehensively analyze alternatives that will accomplish this goal.

Response: There is no alternative in the RMP FEIS that proposes to reduce AMLs or to diminish the habitat available to wild horses.

Comment: The EIS must provide a cost-benefit analysis of livestock grazing, not merely an economic analysis of how grazing contributes to the economies of local communities. Such a cost-benefit analysis must also examine both the economic and non-economic costs and benefits to general taxpayers by itemizing revenue generated by the grazing program as well as costs of fence construction and maintenance, water diversion and development (construction of reservoirs, water catchments, pipelines, guzzlers or the placement of troughs or storage tanks), predator and "nuisance" animal control, fire management, drought relief assistance, vegetative conversion projects to correct livestock grazing-induced problems, including prescribed burns, plantings and treatments such as noxious weed control, market price supports, and any and all other assistance to ranchers underwritten by tax dollars. The cost-benefit analysis must also examine indirect costs of grazing such as how the aforementioned subsidies impact healthy ecosystem functioning, recreational opportunities, etc. In addition, the analysis must also include the costs associated with recovery programs for threatened and endangered species that are ultimately attributable to livestock grazing. Moreover, the analysis must examine how much food and fiber are actually produced on the leased lands and the impact to the local, regional and national economies e.g., would the nation suffer as a result of losing this production? The cost-benefit analysis must also indicate whether livestock permittees are personally profiting by subleasing their grazing permits to third parties. Likewise, the public is entitled to know whether grazing permittees are using public land grazing leases as collateral for obtaining bank loans or other forms of financial credit. Also, given that among the measures provided for by the FLPMA is the receipt of fair market value for the use of public lands and their resources, the EIS must disclose what the current comparable grazing fees are for state or privately owned land. This information must also be broken down in order for the public to evaluate the socioeconomic impacts involved for those grazing allotments, which overlap wild horse HMAs specifically.

Response: The socioeconomic analysis requirements for a BLM land use plan are included in Appendix D of H-1601-1 Land Use Planning Handbook. The analysis completed for, and presented in, the RMP FEIS complies with this guidance. A cost-benefit analysis of livestock grazing on public lands is beyond the scope of analysis for the Rawlins RMP.

Comment: There is no discussion of the level of wild horse movement between HMAs and to what extent there may be genetic exchange. Moving into another HMA does not necessarily mean that there will be breeding between bands. The EIS must provide more quantitative information about the degree of genetic exchange between herds, and whether there are geographical and/or artificial barriers that may impede movement between herds and/or metapopulations. The EIS must also examine what impacts routine removals have on the age/sex structure, health, reproductive success, and genetic variability and viability of wild horses.

Response: The discussion of metapopulations and interchange of individuals between HMAs is included in Appendix 12, Managing Wild Horse Populations, in the Rawlins RMPPA. The discussion in Appendix 12 is adequate for a land use plan analysis. Additional description and analysis of Rawlins metapopulations can be found in EA# 030 EA0 037, which is cited in the RMP FEIS.

Comment: According to the DEIS, geneticists usually define a population in terms of the effective population (N_e) that consists of the number of competent breeding age animals; therefore colts of the year, yearlings, a portion of the two year olds, and the very old would not be included as part of the effective population count. The AML necessary to maintain an effective breeding population of 100 would be about 165 adult animals, not including unweaned colts. The exact number would vary depending on the age/sex distribution of the particular herd involved. (DEIS, A12-2) The EIS must include an analysis of the composition of the herds in the RMPPA and examine alternatives that will maximize the long-term welfare of the wild horses, including the reductions and/or removal of livestock from certain areas, if deemed necessary. If anything, the BLM must adopt a precautionary principle of management, especially for horses with rare genetic markers.

Response: The reiteration of the appendix material is correct; the conclusion drawn that it requires certain analysis in the DEIS is not.

Comment: APPENDIX 12 Introduction: It is implied that BLM monitors the wild horse population. This should not be extrapolated to be more than field observations of herd numbers. There is little effort to monitor forage utilization and habitat. It is a goal of BLM to do these studies, but few have materialized. Professional judgment has been cited, rather than hard data. Monitoring data has been requested but not provided. The Conservation Districts or permittees have made independent utilization studies in herd areas, especially Adobe Town, to document habitat issues with over population.

Response: BLM has never suggested that the Adobe Town population was not over the monitoring established objective, when BLM's own inventories affirmed that an excess, in fact, has existed for some time. The BLM has not suggested that overpopulation does not need to be addressed. Extensive habitat monitoring was not necessary to affirm these things. No actions are envisioned for which additional habitat monitoring would be employed, either to support or refute the action. When AMLs are achieved (which will be in the summer of 2006), monitoring would become the basis for future evaluation and for adjustments in wild horse population levels.

Comment: The EIS must also examine emerging threats to wild horse populations such as West Nile virus by looking at recent epidemiological data pertaining to equine populations in Wyoming and Colorado. The EIS must analyze how management strategies, such as the current low population targets for two of the HMAs, including the unique Lost Creek herd, impacts the health and welfare of these animals.

Response: Animal health management and monitoring activities directed by BLM policy directives issued from the national level address concerns such as West Nile virus. It is not accurate to say that this DEIS (RMP update) must include this analysis.

Comment: APPENDIX 12 AML/Population Expression in the Rawlins Field Office The DEIS has population reference is the number of adults. Appendix 12 reflects the population includes adults and yearlings, not including unweaned colts. The DEIS should have similar reference. The inventory process is under study as apart of the Wyoming Consent Decree, and should those recommendations need to be apart of the DEIS. RSGA continues to support the winter inventories, because it is more comfortable to fly in aircraft in cooler temperatures, therefore the work is more accurate. Winter counts do not require the need to segregate colts from other horses. Rawlins initiated the summer inventories. These were often

out of step with Rock Springs inventories, in regards to Adobe Town, and made it difficult to understand the true population of Adobe Town and Salt Wells HMAs. This makes it difficult for RSGA to understand the true number of horses that utilize the private lands in the Checkerboard. The indication that AML of 165 is the minimum viable herd is different than the traditional AML of 100 that was used to establish and define herd areas. The addition of the term 100 breeding population is specific to Rawlins; it is not the accepted opinion of other BLM offices.

Response: The purpose of Appendix 12, Managing Wild Horse Populations, in the RMPPA is to provide additional information and clarification, and it is a part of the RMP FEIS—thus, the inclusion of the detailed discussion about the representation of numbers in the appendix. Should efforts being undertaken pursuant to the Consent Decree result in the development of standardized inventory practices, RFO will comply. At the present time, RFO practices are in conformance with existing policy. As to the contention that winter inventories are inherently more accurate than summer inventories, there are reasons to dispute that. The selection of the early summer time frame for Rawlins inventories was based on the following considerations: (1) Background colors provided improved sightability, particularly given the high percentage of gray- and other light-colored horses; (2) numbers and locations observed would be much more useful for planning and executing gathers than observations made 4 or 5 months earlier; (3) observations would note foaling progress, which is an important consideration in gather operations; (4) sun angle was provided for improved viewing conditions; and (5) more daylight hours were available for operation. The discussions in which the AMLs of 165 and 100 are mentioned are clearly specific to the Lost Creek herd and do not purport to represent the opinion of other BLM offices.

Comment: APPENDIX 12 Wild Horse Management History in State of Wyoming and Rawlins RMPPA This section contains population data without clarification if the data is based on the Rawlins definition of AML population, or what is commonly used. If the details of population are to be used it should be clear what age classes are included, especially in regards to populations outside of Rawlins.

Response: The best available data are employed at various places to put the RFO situation in national and regional contexts.

Comment: APPENDIX 12 Wild Horse Management History in State of Wyoming and Rawlins RMPPA The last paragraph of this section indicates 17,000 horses have been removed from Wyoming since 1978. This statement is grossly in error, the true figure is probably closer to 35,000.

Response: See the updated text in Appendix 12 of the RMP FEIS. The statement represents that the herds of Wyoming have sustained a significant amount of removal and that an excess still remains. The approximate number was 17,000, when the statement was originally prepared. Gather activities have continued, and as of December 7, 2005, Wild Horse and Burro Information System (WHBIS), which is BLM's computerized information system for wild horses and burros, records that 27,319 horses have been removed from the rangelands of Wyoming and been freezebranded.

Comment: We remind the BLM of its regulatory mandate that wild horses and burros shall be considered comparably with other resource values in the formulation of land use plans. CFR 4700.06 (b) The EIS must analyze alternatives that will examine increasing the AMLs for wild horses in HMAs in the RRMPA. With the changing demographics in the area and the decline in earnings from ranching operations (DEIS p. 3-57), the EIS must also examine comprehensively an alternative that will establish a pilot project within the RRMPA that will allow for the voluntary, permanent retirement of grazing permits in wild horse HA/HMAs by offering a one-time permit buy-out along the lines of the proposal being advanced by the National Public Lands Grazing Campaign. More information on this proposal can be found at <http://www.publiclandsranching.org>

Response: BLM is aware of 43 CFR 4700.0-6 and believes that the fact that no HMAs are being considered for elimination or diminishment and no AMLs are being proposed to be decreased is evidence that this mandate is not being ignored. The conclusion that the DEIS must analyze certain things, including ones that are not currently available to the RFO as management options, is not consistent with the alternative formulation process, which is described in Chapter 2.

Comment: 2.3.15 Wild Horses: There had been a change in the typical definition of numbers for AML. DEIS uses the reference to numbers of adults. Typically the numbers have not distinguished adults from foal. This definition could imply management actions to understate the true population of the horse herd, and this has been clearly demonstrated in the Rawlins Field Office. This definition would also imply that inventories would only count adults, which is very difficult if not infeasible. This approach will discredit any agency census. This paragraph differs from Appendix 12. RECOMMENDATION: Paragraph should highlight that the management objective is there will be no wild horses in the checkerboard and outside of herd management areas. RECOMMENDATION: The paragraph should define the age of adult horses, and the difficulty to identify specific age classes in aerial census. Creditable census must be provided to generate cooperation with private land owners, permittees, and interest groups.

Response: The definition of AML in the RFO has been consistent since 1994. The difficulty in understanding various numbers was the reason for including a whole section in Appendix 12, Managing Wild Horse Populations, in the Rawlins RMPPA: AML/Population Expression in the Rawlins Field Office. This section attempts to aid the reader in understanding this complex issue. Current efforts to develop and standardize inventory procedures being undertaken by Wyoming BLM in response to the Consent Decree will address this.

Comment: The reiteration of the Alternatives with emphasis on the apparent contrast of Alternatives 3 and 4.

Response: Unfortunately, this contrast is appropriate when drawn from the language in the table, which is a typographical error and should be positive, not negative. This is correctly portrayed in Table 2-4, Summary Comparison of Impacts, in the RMP FEIS.

Comment: the EIS does not discuss strategies for managing wild horses who may stray outside existing HMA boundaries during development activities or who may begin to use other areas to avoid ongoing disturbance. The EIS must analyze alternatives for how changes in behavior and movement patterns will be handled by the BLM. Our organizations find any effort to remove and dispose of these animals unacceptable. If commercial or recreational activities result in decisions to remove and dispose of horses due to changes in their behavior, then mitigation measures must be adopted, the activities must be eliminated or the HMA boundaries redrawn to accommodate the wild horses' altered behavior.

Response: The RMP FEIS does not propose to expand wild horse habitat any more than it proposes to diminish it. Monitoring of wild horse HMAs during implementation of the Approved Rawlins RMP would include monitoring that would identify changes in behavior and movement patterns of the type suggested in the comment. The assessment process described in Appendix 17, Monitoring and Evaluation, would ensure that the goals and objectives identified in the RMP FEIS would be achieved and maintained.

Comment: The BLM routinely ignores its mandate to manage wild horses at the “minimal feasible level,” deciding instead to set arbitrary population targets and intensively managing for those numbers regardless of adverse impacts on individual wild horses and wild horse herds. In many areas, the BLM allows predator control activities to benefit private domestic livestock operations to occur within wild horse HAs/HMAs, thereby eliminating a critical natural control that could help to stabilize populations, to

strengthen herd gene pools and to influence herd and band distribution within HAs. Not only do our organizations object to predator control due to its inherent cruelty and immensely harmful effects to the healthy functioning of ecosystems, but also because it results in the elimination of one means to naturally control wild horse populations. It is also costly to taxpayers. Mountain lions, coyotes and wolves are all effective wild horse predators. However, the DEIS fails to analyze the complexity of predator/prey dynamics nor the far-reaching, and counterproductive repercussions of predator control activities. The EIS must disclose this information and develop and analyze alternatives that both reduce, and preferably eliminate, predator control activities in the RRMPPA.

Response: This comment reflects fundamental differences in the meaning of “minimum feasible management” and the present and potential effect of predator control on wild horse populations and management. With regard to minimum feasible management, the statutory mandate to engage in only the minimum feasible level of management activities is found in the WFHBA and is understood by the BLM to mean that horses within HMAs are to be managed as wild animals rather than as domestic livestock and is not understood to be connected to the relative allocation of forage among the various authorized uses of the public resources. The assertion that predators could naturally control wild horse populations is not supported by the facts. Coyotes are the only one of the mentioned species that are found in the HMAs in any significant numbers. They are known to only take an occasional colt under unusual circumstances. While mountain lions can effectively take enough horses to limit or even eliminate population growth, they do not presently nor would they be expected to occupy the HMAs in sufficient numbers to affect such a control. There is very little ambush opportunity in any of the HMAs. The mountain lion is primarily an ambush predator and not known to overtake large prey in open country, such as is typical of the terrain of the Rawlins HMAs. Wolves cannot be expected to reach the HMAs in any significant numbers from the mountainous areas where they have become established. The conclusion that the EIS must develop and analyze alternatives that both reduce, and preferably eliminate, predator control activities in the RMPPA is incorrect.

Comment: While the BLM kindly invites the public to review all relevant policy and technical guidance contained in the Rawlins Field Office Wild Horse Management Handbook, we regret that we simply do not have the resources to visit remote field office locations to review documents, and we suspect that most members of the general public are similarly situated. Relevant policy and guidance must be outlined in the EIS.

Response: While the Rawlins Field Office has a tremendous volume of data on all of the authorized uses of the public land that is not included in the RMP FEIS, a great deal has been included. Relevant authorities have been presented in Section 1.4, and pertinent data describing the affected environment necessary for the analysis are presented in Chapter 3. The goals, objectives, and management actions presented in Chapter 2 meet the planning requirements, and the impact analysis discloses the impacts of proposed management actions on the resources of the RMPPA. All of these, taken together, will enable the BLM to proceed with responsible land management throughout the RMPPA.

Comment: BLM regulations and policy state that wild horses shall be managed as viable, self-sustaining populations of healthy animals in balance with other multiple uses and the productive capacity of their habitat. CFR 4700.06 (a) Yet, three of the four alternatives, including the preferred alternative, will not guarantee the New World Iberian (Spanish Colonial) genotype associated with horses from the Lost Creek HMA (DEIS, pp 4-203-208), and thus, violates BLM regulations and policy.

Response: Unfortunately, this contrast is appropriate when drawn from the language in the table, which is a typographical error and should be positive, not negative. This is correctly portrayed in Table 2-4, Summary Comparison of Impacts, in the RMP FEIS.

Wildlife and Fisheries

Comment: The BLM should adopt the Western Heritage Alternative as its final Rawlins RMP, with the following amendment: The new Rawlins RMP should place a moratorium on prairie dog poisoning and lethal predator control for federal lands within the planning area, non-lethal control methods could be used as a substitute.

Comment: The BLM should adopt the Western Heritage Alternative as its final Rawlins RMP, with the following amendment: All big game crucial winter ranges should be managed under No Surface Occupancy stipulations as far as future oil and gas leasing is concerned.

Response: The Western Heritage Alternative was determined to not be a reasonable alternative because of, among other things, the excessive acreage of the NSO restriction proposed in the alternative. See updated text in the RMP FEIS, Section 2.3.3, Alternatives and Management Options Considered But Eliminated From Detailed Analysis, Western Heritage Alternative.

Comment: pp: A15-1; 11th bullet, Reducing Impacts to Sage Grouse Habitat Comment: The twelfth bullet reads: “Avoidance of surface disturbance or surface occupancy within ¼ mile of the perimeter of occupied Sage Grouse leks.” As discussed in numerous other places in our comments, this BMP is worded differently than stipulations intended to provide the same protection to breeding Sage Grouse, as is the 12th bullet. We suggest the definition of “occupied lek” as provided by Connelly et al 2000.

Comment: pp. A9-3; Columbian Sharp-tailed and Greater Sage Grouse, 1st partial. paragraph, Comment: A sentence is written that reads: to a 112 mile radius of active strutting grounds.... We again request consistency in determining the avoidance area, see comment page 4-242, paragraph six. It appears that a mile radius is predominantly used in this context in the DEIS and for those reasons this reference of a mile should be changed for consistency. Also, a reference is made to the restrictions on hours of the day. There should be flexibility in the time frame restriction due to the types of activities that occur in the early morning hours per our comments in reference to 4-242. This is especially true when considering weather variability that apparently will be used to modify the actual timing of the stipulation.

Response: RFO follows the BLM National Sage-Grouse Strategy, the Wyoming Greater Sage-Grouse Conservation Plan, and when the local Sage-Grouse Working Group’s plan becomes available, the strategies in this document will be implemented for grouse protection as well. Around known lek sites, the National Sage-Grouse Strategy recommends a ¼-mile NSO as the best available, scientifically supported management to protect nesting grouse; currently the RFO follows these guidelines. RFO currently proposes changing the management action from ¼-mile NSO from the lek center, to ¼-mile from the lek perimeter, which will extend the protective NSO. In addition, once nesting and brood-rearing habitat has been identified, RFO will protect nesting and brood-rearing habitat even if suitable habitat is outside the current 2-mile lek timing buffer. Until such time as the strategies change, RFO (and BLM) will utilize these requirements as the best available, scientifically supported management to protect grouse. Also, using BMPs—such as centralized facilities, directional drilling, and avoidance of operations between the hours of 6 p.m. and 9 a.m.—RFO seeks to minimize impacts to grouse during the critical strutting and nesting season. As noted, RFO and WGFD are in the process of identifying nesting habitat. In the future, these areas (even if outside the 2-mile lek buffer) will have seasonal timing stipulations placed on them. The potential exists that in the future, as development expands, BMPs (recommendations) would become COAs (requirements) for projects.

Comment: All areas used by sage-grouse during both average or “normal” and severe winters should be located, mapped, and given special protection from wild fire, manipulation of sagebrush, and human-

induced disturbance. This is the minimum needed to maintain sage-grouse populations. At least 90% of these newly mapped areas should be designated as a network of ACECs.

Comment: Between the current verbiage in the draft RMP regarding winter habitat and nesting/early brood rearing habitat, areas of Wyoming supporting sagebrush would be off limits from November 14 to July 15 regardless of the presence of sage grouse. Recommendation: The current winter use stipulation is “avoid ephemeral draws dominated by basin big sage greater than 3 feet tall where possible.” This language would be adopted in the draft RPM to clarify the concept of winter use areas. This is more closely aligned with what is known about the limited severe winter relief habitat used by the birds during the deepest snows.

Response: RFO, industry, WGFD, and consulting firms are currently in the research process to identify appropriate vegetation characteristics of sage-grouse winter habitat. In areas identified as severe winter use for grouse (once in every 10 to 20 years), the RFO will attempt to use the NSO provision. Areas identified as winter concentration areas will be identified and have timing stipulations placed on them. Sage-grouse in normal winters do move frequently from sagebrush patch to patch; until these areas are identified, it is extremely difficult to determine which patches are most critical to grouse during a winter with normal precipitation. Radio-telemetry and flight studies are currently underway to determine which sage brush patches are critical to wintering grouse.

Comment: In Appendix 9, page 1 of the DEIS, BLM asserts that we, the public, are under a wrong impression about exceptions and waivers -- that despite our belief otherwise, they are allowed and are always done "in consultation with WGFD" using "professional judgment." We respectfully say to you that the two undersigned members of "the public" (and a good many more than we two) are fully aware of the use of exceptions and waivers by the BLM, and of Wyoming BLM's record of granting them to industry, which we will charitably describe as less than sterling in many cases.

Comment: The DEIS contains provisions for exceptions, waivers or modifications, however, the criteria for evaluating a request for exception is vague. Questar believes that specific criteria must be stated in the final RMP to provide operators a clear understanding of the reasoning behind a decision to approve or deny the request for exception. The criteria for analyzing an exception request must include confirmation that the resource value sought to be protected is actually present in the project area, that the project will actually impact that presence, and that the specific protection imposed will effectively achieve the desired result.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or FWS, depending on species, are completed. Exceptions are only granted if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant.

Comment: Page 4-242: Third paragraph; “Proposals for year round surface disturbing and other disruptive activities in seasonally sensitive habitats would not be considered.” This contradicts an earlier statement on Page 4-68, paragraph 1.

Comment: pp. 4-68, 1st paragraph, 1st sentence. While we are encouraged that the BLM will consider year round activities, we are very concerned about what it will take to obtain the ability to conduct these operations. Unfortunately, this statement is contradicted on page 4-242, paragraph 3. We would urge the BLM to consider year round activities in correcting the differences in these two references.

Response: The opportunity to consider year-long surface disturbing activities in sensitive wildlife habitat has been removed from the Proposed Plan in Table 2-1, Detailed Comparison of Alternatives. The impact analysis has been updated in the RMP FEIS in Section 4.8.5, Impacts Under Alternative 4: Proposed Plan. Under this alternative, the year-long surface disturbing and disruptive activities impact analysis has been removed.

Comment: ES-13 Wildlife & Fisheries. Mountain Plover was not listed and determined to not be warranted. Please provide reason for maintaining these restrictions. If the base reason is because it is a species of interest to BLM, provide the reason why it is a species of interest when the USFWS did not warrant consideration for listing. Recommendation: If the intent is protection of suitable BFF habitat, the statement should be made. This same level of protection is also found in BLM BMP's (Appx. 1). The use of this restriction must be consistent with the FWS BFF criteria and include should be conditioned with "avoidance as necessary to protect BFF habitat" and include a discussion of burrow density.

Comment: There is strong evidence of a link between the plover and prairie dogs. As such, I recommend that all areas occupied by prairie dogs be specifically withdrawn from consideration for development. Prairie dog colonies may provide optimal habitat for plovers, and as such should be the focus of conservation efforts to preserve this species.

Response: The mountain plover, the white-tailed prairie dog, and the black-tailed prairie dog are all considered BLM Wyoming sensitive species and are currently protected under BLM Manual 6840. In addition, habitat that has the potential to be black-footed ferret habitat is also protected under the ESA. The mountain plover uses habitat composed of short-grasses to bare grounds, in addition to white-tailed prairie dog towns; therefore, both habitat types are protected for this species using a combination of timing and additional restrictions.

Comment: Page 3-143: "Efforts are being made to map suitable nesting habitat, which may extend beyond the 2 mile buffer, because this would allow development to occur on suitable habitat within current existing buffers in the future. This causes severely fragmented habitats..." Comment: This sentence is awkward, misleading and should be re-written as follows "Efforts are being made to map suitable nesting habitat, which may extend beyond the current two mile buffer. This effort will provide protection for a greater percentage of the suitable nesting habitat and nesting sage-grouse while allowing development to occur..." Delete "This causes..." from the end of the paragraph as there is no scientific support for such a statement and most of the rest of the paragraph is not relevant to the discussion.

Response: Incorporation of specific habitat requirements into management objectives will be facilitated by the completion of local conservation strategies, which are being developed. Currently, the BLM National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan guide management of habitat for sage-grouse within the RMPPA. Section 3.19.3, Greater Sage-Grouse Habitat Management, has been updated to address the mapping of greater sage-grouse suitable nesting habitat outside of the 2-mile buffer.

Comment: All four alternatives in the Draft EIS contain mitigation measures that will fail to prevent permitted actions that jeopardize the existence of the sage grouse within the RRMPA which holds one quarter of all sage grouse leks in Wyoming and is therefore a globally significant sage grouse resource.

Comment: Recent important developments in the management of sage-grouse and efforts to ensure its ongoing conservation and improvement are largely missing from the EIS. While the sage-grouse is only one of many important wildlife species in the area, the current efforts to prevent listing of the species and the unprecedented cooperation between the State, local government, residents, and Federal agencies towards achieving these goals should be recognized in the EIS. At the least, the BLM Information

Memorandum regarding sage-grouse management should be appended. The collaborative approach evidenced by the effort on sage-grouse may very well be a harbinger of the future of resource management, and thus deserves a place in the EIS

Response: Currently, management of sage-grouse in the RMPPA is guided by BLM National Sage-Grouse Strategy and the Wyoming Greater Sage-Conservation Plan, as is reflected in the mitigations proposed in the DEIS. These plans were based on the best available scientific information. Additional consideration of local trends in populations and habitat of sage-grouse will take place within local conservation planning efforts, which are currently underway. Implementation of additional conservation actions from local planning efforts will not be hindered by the finalization of this RMP.

Comment: The BLM plan fails to protect critical winter range and birthing grounds of the Big Game that is such an important part of Wyoming's heritage. Evidence from other areas indicates that seasonal restrictions on construction and extraction activities do not mitigate the disturbances they cause. The excessive fragmentation of habitat, destruction of sagebrush communities and introduction of exotic species will not be prevented in the BLM's plan.

Comment: In my opinion, the Rawlins Resource Management Plan DEIS does not meet the "spirit " of the National Environmental Policy Act. There are critical omissions in the affected environment including vital parameters regarding big game animals and their habitats. The environmental consequences depicted in the document are uninformative largely because the BLM did not consider the temporal and spatial arrangement of well pads and roads associated with projected gas and oil development. Without this information, calculation of habitat loss and impacts to big game populations are unrealistic and do not accurately represent probable impacts.

Comment: Critical wildlife habitats—crucial winter range and birthing grounds are not protected in this plan. The plan relies heavily on limiting development activity during certain times of the year, such as over the winter or in the spring when animals are birthing—while evidence from other parts of Wyoming indicate that these kind of restrictions are not effective. It is known waivers are given too often and too easily during these vital times. Your own statistics for your office show this to be the norm in Rawlins, also.

Response: Proposed protections for big game crucial winter ranges, parturition areas, and migration corridors are identified within the Wildlife and Fisheries section of Table 2-1. In addition to timing stipulations, RFO has established BMPs (Appendix 15 in the DEIS) as additional protective measures for big game crucial winter range. BLM and WGFDD (as partners) have identified these measures as sufficient to protect big game species and their habitat, where surface disturbing and disruptive activities are authorized. Additional opportunities to manage the quality of big game crucial winter ranges and parturition areas will be identified and pursued in association with Standards and Guidelines assessments (BLM's land health assessment), which are conducted at the watershed scale. Additionally, as big game movement corridors are identified, opportunities to decrease habitat fragmentation will be pursued.

Comment: The BLM must survey for special status species before allowing any ground disturbance in lease parcels, must develop site-specific management plans for these species, and must monitor special status species populations within the lease parcels to ensure that the agency is promoting their recovery. The BLM must acquire baseline data and analyze the impacts of the four alternatives on these species. In the Draft EIS, the BLM has flouted its special status species obligations, which makes this safety net less meaningful and increases the need for Endangered Species Act protection.

Comment: Wyoming recently dodged a bullet when the US Fish and Wildlife Service announced the Greater Sage-Grouse was not a candidate for listing under the Endangered Species Act. But their

announcement also indicated they would continue to monitor the situation and could change their findings if the bird continues its decline in numbers. The proposed resource management plan encompasses an area that is home to a decimated population of these birds as well as the Mountain Plover, Swift Fox, and Columbian Sharp-tail. All four have recently been considered for listing under the Endangered Species Act. In all cases habitat destruction is listed as the main contributor to their decline. Possible, the only thing that kept the Greater Sage-Grouse from being listed, as this time, is that Wyoming has a relatively large population when compared to other states. Even though we have a decent population it is only a small fraction of what it was as recent as 25 years ago. If our population should decline to the densities found in other Western states, it is very likely the bird will become listed. The same holds true for the Swift Fox and the Mountain Plover. As I read the plan I find nothing that reassures me development will not negatively impact these animals.

Response: The BLM manages habitat for Special Status Species, as well as habitat for T&E species, and provides protection measures as stated in Table 2-1 under Species Listed on the BLM Wyoming State Director's Sensitive Species List and Endangered (E), Threatened (T), Proposed (P), and Candidate (C) Species. In addition, protection measures and management actions are located in Appendices 10, 16, and 24, providing additional protection measures for T&E and sensitive species.

Comment: Page 4-242: "Surface disturbance and other disruptive activities would not be authorized within 825 feet of active raptor nests or within 1200 feet of active ferruginous hawks' nests..." Previously an "active nest" was defined as a nest used in the last three years, the new definition is one that "could provide a nesting opportunity". The broad expansion of the term active nest should be changed to reflect use by raptors in the last three years. In addition, there is no consideration for site-specific factors such as nesting activity status, prey availability, topography, line of sight, etc. A six-week extension is excessive, especially with the overlapping use of much of Wyoming by the various raptor species.

Comment: Item: pp. ES-I 4; 2nd full paragraph on nesting raptors Comment: The setback distances in the DEIS for raptors has changed from 1/2 to 1 miles from Feb 1 to July 31 and, depending upon the species, to 3/4 to 1 mile from Feb 1 to August 31. The only justification provided in the draft RMP for this change is the burrowing owl; however; other species specific justification should be provided. Previously an "active nest" was defined as a nest used in the last three years; the new definition is one that "could provide a nesting opportunity". Absent scientific justification, we urge that the broad expansion of the term active nest be changed to reflect use by raptors in the last three years and avoid using non-specific terms such as "could provide a nesting opportunity".

Response: The raptor protection measures for both the distance restrictions and the timing restrictions are based on the most appropriate protection measures for each species. An active raptor nest is any identified raptor nest site that could provide a nesting opportunity for a raptor and does not preclude those nests that were used prior to a 3-year period. Site-specific factors, such as nesting activity status, prey availability, topography, and line of sight factors, are considered when implementing timing and distance restrictions. The extension of the timing restriction protects the burrowing owl and the goshawk, and Table 2 shows the exact timing restriction dates for each raptor species.

Comment: Wildlife needs receive short shrift, if any at all. Such restrictions as are in the plan are a sham, similar to what we've seen in the Upper Green River area, where winter drilling, intense road construction, and other manifestations of "industrial America" easily win the day over pronghorn, deer, elk, and other 'natives'.

Comment: In 2-68 to 2-78, Appendix 33, 4-218, the draft RRMP attempts to but fails to adequately reduce harms to wildlife resulting from the large scale industrial development. The BLM plan says it will authorize, particularly oil and gas development, by the use of stipulations on leases and permits, but it

will take few actions specifically intended to enhance wildlife populations, other than cooperating in efforts undertaken by the Wyoming Department of Game and Fish or the U.S. Fish and Wildlife Service. I ask that the RRMP not rely on seasonal stipulations and instead use NSO stipulations or any similar designation that lessens surface impacts to ensure that key wildlife areas are protected.

Response: The RMP has wildlife protection measures in place that are identified at the planning level and in coordination with other agencies. Big game crucial winter range NSO: In addition to timing stipulations (no development from Nov 15 to April 30 in big game crucial winter range), RFO has established BMP's (Appendix 15 in the RFO Draft RMP) as additional protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitats where surface disturbing and disruptive activities are authorized.

Comment: 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(0(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."). 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 Commission 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 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.[footnote 50] No mention of the guidelines for conservation of big game habitats is made in the DEIS.[footnote 51] We believe BLM must ensure that its revised RMP is consistent with these guidelines or explain why federal law precludes BLM from achieving consistency.[footnote 52]

Comment: We recognize that an RMP does not contain all the components necessary to manage habitats for wildlife. However, the RMP should identify major elements that are needed to be incorporated into subsequent activity plans. For pronghorn, and certain other wildlife, a paramount management strategy is the identification and delineation of crucial habitats: for pronghorn these include fawning areas, key winter rangelands, and seasonal movement corridors. Lack of documentation for these crucial habitat sites fails to provide information needed by land stewards to adequately manage these key areas impacted by other uses.

Response: The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species from all activities authorized on federal lands, including activities located within pronghorn seasonal ranges and migration corridors. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Seasonal stipulations can be used to reduce impacts from both surface disturbing activities and also disruptive activities. The BLM considers WGFD guidelines and recommendations (Minimum Programmatic Standards Recommended by the WGFD to Sustain Important Wildlife Habitats Affected by Oil and Gas Development) to reduce impacts where needed, a practice also applicable to individual herd units.

Comment: All habitat is "not created equal," thus the impact of habitat loss on big game populations would vary depending upon which acres were lost. A more accurate portrayal of impacts to big game habitats would be an assessment of acreages affected by vegetation type. Admittedly, exact locations of future development may not be known with certainty, but the BLM has databases that would allow more realistic predictions at a reasonable cost. The DEIS indicates that considerable acreages of private lands constituting big game habitat will also be impacted by gas and oil development. The spatial and temporal relation of development on these lands needs to be evaluated with that on public lands to accurately portray the magnitude of lost habitat. This may be especially true for bighorn sheep populations (p 4-265).

Response: The BLM continues to support the use of science, where appropriate, to conduct meaningful impact analyses. The RMP has attempted to identify the range of potential impacts from a myriad of activities that would occur on the public lands. The lack of specificity found in many impact analyses throughout the document is not a function of the BLM's lack of the consideration of science, but of the lack of knowledge regarding specific project details at this broad planning scale. At the activity, or project scale, the use of pertinent literature to identify and, where appropriate, quantify impacts from well-defined proposals enables more meaningful impact analyses that lead to the development of biologically significant mitigation measures or alternatives. Rather than the RMP or NEPA documents, Standards and Guidelines assessments (the BLM's land health assessment) are used as the primary vehicle for the assessment of habitat condition within the field office area. Where big game habitat, such as winter range, is determined to be in poor condition, management actions are identified to improve the suitability of these habitats.

Comment: Bison are a species of native wildlife that should be returned to the Great Divide Basin portion of the planning area as wild, free-ranging herds, not as domestic livestock. Reintroduction should be accomplished using only animals that are certified brucellosis-free to prevent the possibility of disease transmission to domestic livestock. While we appreciate the fact that the Wyoming state government has an interest in managing bison reintroduction, and that reintroduction may (or may not) be legal in the RRMPA at this time, the BLM still has the obligation to analyze alternatives outside the scope of its jurisdiction to implement. We recommend that bison be reintroduced as wild game animals in the Great Divide Basin, to be managed by WGFD. Because the Great Divide Basin has large expanses of suitable habitat that are free of fences, we feel that this would be a logical place for bison that minimizes conflicts with livestock permittees.

Response: Reintroduction of wild bison was addressed during consideration of alternatives. The justification for not considering the reintroduction of a wild bison population is found in detail in Section 2.3.3, Alternatives and Management Options Considered But Eliminated From Detailed Analysis, Reintroduction of a Wild Bison Population, in the RMP FEIS.

Comment: I do not feel that the proposed management plan offered by the BLM adequately protects the critical habitat areas for the elk, deer, antelope, and the sage grouse that call this area home. I urge the BLM to use today's technology to protect these critical habitat areas for our wildlife

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: Development plans should be modified so wildlife can flourish, while still allowing for oil and gas production in most cases. Wyoming's native wildlife is a treasure that we must conserve for our grandchildren to enjoy, and meaningful habitat protection should be a part of every land use plan.

Comment: Of the current slate of alternatives in the Rawlins RMP DEIS, not a single one will maintain "a thriving natural ecological balance" and "multiple-use relationships." In fact, each alternative seems designed to result in the demise of numerous populations of sensitive species, long-term reductions in big game populations, and an overall degradation in ecosystem health across vast swaths of the planning area to the point that ecological function is no longer maintained even at a basic level. In addition, multiple use under the four alternatives is destined to be replaced with the single use of oil and gas development over immense stretches of the planning area, to the exclusion of most other uses of the land.

Response: The BLM manages public lands for balanced multiple use. The term "multiple use," as defined in FLPMA means "the management of the 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.” This direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP FEIS reflect this provision. Not all areas would be open to all types of uses in the RMPPA. Additionally, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (see Summary of Changes between RMP DEIS and FEIS at the beginning of each chapter in the FEIS). The RMP FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the RMP FEIS allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands (see Section 1.4, Relevant Statutes, Limitations, and Guidelines, in the RMP FEIS) and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure that resource values are protected, while allowing for acceptable levels of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent program-specific or site-specific NEPA documents.

Comment: Item: pp. 2-69; Table 2-1; Alternatives 2, 3, and 4 Comment: The DEIS specifies that timing limitations will be applied from April 15-Sept. 15 for the burrowing owl and April 1-Aug. 31 for the goshawk. These are new restrictions and we are unable to find any documentation that provides scientific justification to implement these changes. With this being the case, these restrictions are inappropriate and should be removed from the FEIS.

Comment: There appears to be lots of information about how much gas, how many wells, how many roads will be required, etc., in the great divide area. Why isn't there also a wealth of information about the effect on wildlife? Do we have any science to show projected impacts? Do we have procedures in place to monitor the impacts of development? Will we use herd numbers from the prolonged drought to establish base populations? If there are impacts to game numbers do we have ideas how to mitigate these impacts?

Comment: All possible factors affecting sage-grouse and the impacts of these factors. The provisions (pages 96-106), specifically those concerning sage-grouse, are based on the published literature and have scientific merit versus the 4 alternatives presented by the BLM in the Rawlins Resource Management Plan DEIS, which are not scientifically credible.

Response: The impact analysis in Chapter 4 of the Rawlins RMP FEIS has been updated to include additional scientific literature citations for research considered and incorporated into the analysis, appropriate to the discussion, evaluated, etc. Research articles or available science has been considered by the BLM; however, recommendations, assertions, and opinion made in the literature are by no means required to be incorporated verbatim into management actions. BLM is required and has a responsibility, and a legislated mandate to evaluate and consider available research within the scope of its multiple-use mandate and to formulate management actions, mitigation measures, BMPs, and eventual decisions that are supported by law, regulation, and policy, as well as by available science. As an example, the management actions and mitigation measures in the Proposed Plan for management of greater sage-grouse and sagebrush-dominated habitat conform to the recommendations made in the BLM National Sage-Grouse Strategy (Strategy). The Rawlins RMP DEIS did not list the majority of the scientific citations referenced in the Strategy, because the Strategy recommendations and management actions were supported by the literature citations cited in the Strategy and by the BLM and multi-agency specialists tasked with developing the Strategy. The same applies to the National Forest Initiative and the Rangeland Health Initiative, among others.

Comment: We cannot agree with BLM’s statement that “the majority of [cumulative] impacts would be considered ‘moderate’ as a result of actions such as minerals development, OHV use, and livestock grazing that could result in the loss, alteration, and fragmentation of habitats and displacement of wildlife.” The cumulative effect of livestock grazing has had a highly significant, adverse impact on nearly all grassland and shrub-steppe wildlife. This needs to be recognized in the RMP. Oil and gas development within crucial and important wildlife habitats will have significant, adverse impacts unless densities of wells and roads are substantially reduced, human and vehicular activities are tightly regulated, and effective compensatory mitigation is required to restore and maintain habitat effectiveness when impacts are unavoidable. The RMP currently does not contain sufficient direction to assure these measures will be implemented. [Page 4-265, Section: Wildlife and Fish]

Response: In response to comments received regarding the Cumulative Impacts section of the RMP DEIS, BLM has updated Section 4.20, Cumulative Impacts, in the RMP FEIS to include enhanced descriptions of cumulative impact analysis areas, improved description of reasonably foreseeable future actions, and additional analysis of potential impacts.

Comment: P. 4-215 Forth paragraph: The discussions on impacts to sage-grouse tend to paint a picture that any loss of vegetation is negative for the sage grouse: Yet, there are numerous BLM land treatment projects that are designed to remove vegetation, similar to the effects of pipeline construction, where old sagebrush is removed and grasses are allow to return. RECOMMENDATION: Clarify the difference of results between BLM/Game and Fish land treatment projects for mowing of sage brush, and similar results related to pipeline construction.

Comment: : pp. 3-84; White Tailed Prairie Dog Area Comment: While we can concur the ecosystem within which the White Tailed Prairie Dog (WTPD) operates is complex and supports a large number of other species, disagreement exists however, that WPTD towns warrant being raised to the status of consideration as an ACEC. Therefore, we strongly oppose such an ACEC in the DEIS because it has no basis on which to raise it to the level of an ACEC. Further, the paragraph, last line of the discussion states: “Prairie dogs were once numerous on the prairies but have been reduced to a few complexes through poisoning.” This is an overstatement of the current status of the population of WTPD arid should be deleted.

Response: Thank you for your comment and your interest in the Rawlins RMP. All editorial, document content, and document adequacy suggestions will be reviewed, considered, and applied to the RMP FEIS, where appropriate.

Comment: Description of Existing Resource Conditions. The Rawlins RMP generally lacks quantitative descriptions of the existing condition of natural resources managed by the BLM throughout the area covered by this plan. There is no quantitative assessment, or reference to a quantitative assessment of the condition and status of ecosystems, rangelands, or wildlife habitats. This step is critical to support an effective planning effort. The CEQ Regulations specify, “Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements” [40 CFR 1502.24]. “Data and analyses in a statement shall be commensurate with the importance of the impact...” [40 CFR 1502.15]. With respect to incomplete information, “If the 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 CFR 1502.22(a)]. The descriptions of the existing resource conditions in the RMP are not adequate. The development of appropriate management prescriptions to achieve desired conditions must be based on an adequate assessment of existing conditions.

Response: The RMP FEIS includes sufficient baseline data necessary to meet the requirements of both NEPA and FLPMA and internal BLM guidance for a land use plan level document. Baseline information in Chapter 3 for various elements of the natural, physical, or human environment has been updated in the RMP FEIS. Appendix 17, Monitoring and Evaluation, has been updated in the RMP FEIS.

Comment: The establishment of a monitoring team composed of various federal oversight agencies, state fish and game department, state DEQ, conservation organizations, and other legitimate stakeholders should be undertaken immediately to track compliance with BLM standards, habitat mitigation, environmental effects, game impacts, etc.

Comment: We are concerned about whether monitoring budgets and activities are adequate to protect fish and wildlife resources and whether adaptive management protocols are established that will allow changes in management direction if fish and wildlife species impacts exceed expected levels or thresholds for their continued viability in the RMPPA. For example, on page 2-18 it is noted that the capability to conduct the process (monitoring and evaluation) will vary from year to year and actions to be monitored will be prioritized, which implies that certain resources will get more protection than others. Given the extensive resource impacts that are likely to wildlife, we recommend working closely with fish and wildlife agencies, perhaps considering a RMP Objective to coordinate fish and wildlife monitoring and evaluation with those agencies to assure protections for sensitive species. In addition, BLM could write stipulations for oil and gas development that requires operators to monitor for water quality impacts and for impacts to fish and wildlife.

Response: The RMP FEIS provides for monitoring of all resources to meet the identified goals and objectives of the RMP FEIS. The introductory text of Appendix 17 describes the process under which monitoring would be used to ensure that predicted impacts to environmental resources have not been exceeded and that mitigation measures are sufficient. Appendix 17 describes the various types of monitoring data that would be collected and evaluated during implementation of the Rawlins RMP, as well as the various triggers that would require consideration for management adjustments. BLM will coordinate with other federal, state, and local land and resource management agencies (WGFD, USFWS, NRCS, etc.), where appropriate, when issues of state or federal authority are evident. As an example, any monitoring of wildlife populations would be coordinated with the WGFD and USFWS, as appropriate. Appendix 17 of the FEIS also has been updated to stress habitat conditions in addition to animal numbers. See the revised Appendix 17, Monitoring and Evaluation, in the RMP FEIS.

Comment: Mitigations in the Draft EIS Violate WGFD's Mitigation Policy It is important to note that FLPMA requires the ROD to conform to established state policies and laws, including the Wyoming Game and Fish Department's Mitigation Policy. Currently, mitigation measures in the Proposed Action are not sufficient to prevent a net loss of habitat function for big game crucial ranges, prairie dog colonies, and juniper obligate songbirds. The Desolation Flats EIS therefore violates FLPMA's requirements to maintain consistency with established state policies.

Response: BLM thanks you for your comment. However, the content of the comments is not within the scope of the Rawlins RMP planning process.

Comment: much more careful management is needed of oil and gas development to ensure that full-field development does not entail complete obliteration of wildlife habitat function for many species of wildlife, as it does under current management and the four proposed alternatives in the DEIS.

Comment: The current network of protected landscapes is inadequate to ensure the long-term viability of wildlife within the planning area

Comment: Wildlife surveys should be conducted prior to any final decisions to determine habitat needed for sensitive species.

Response: The hard look at the effectiveness of mitigation measures, BMPs, and management actions is included in the impact analysis in the RMP FEIS. The impact analysis in Chapter 4, Environmental Consequences, has been updated in the RMP FEIS. The impact analysis in Chapter 4, Environmental Consequences, does not suggest that any of the alternatives would result in the demise of populations of sensitive species, long-term reductions in big game populations, or an overall degradation in ecosystem health across vast swaths of the planning area to the point that ecological function is no longer maintained even at a basic level. Appendix 17, Monitoring and Evaluation, identifies the process that would be followed and the types of monitoring data that would be collected and evaluated to gauge the effectiveness of management actions, mitigation, and BMPs and, in essence, the accuracy of the impact analysis. Implementation actions developed following the planning decisions in the Rawlins RMP will require, and be supported by, additional NEPA analysis conducted for all proposed surface disturbing and disruptive activities.

Comment: According to Holden and Stalnaker (1975a), introduction of non-native species to the Green River system was considered a primary reason for the decline of endangered fishes, and non-natives outnumbered natives almost 2 to 1 at that time. Lanigan and Tyus (1989) blamed the decline of razorback suckers in the Green River system in part on predation from non-native fishes on juvenile razorbacks. Karp and Tyus (1990) reached the same conclusion for roundtail and humpback chubs. Ingestion of non-native channel catfish by pikeminnows, and problems with catfish spines catching in their throats, may be a significant cause of mortality (Vanicek and Kramer 1969, Osmundson et al. 1996). The BLM must maintain the natural habitat conditions found in the Little Snake, namely low baseflows and large disparity between baseflow levels and peakflow levels that favors rare native fishes and discourages the invasion of nonnatives.

Comment: Colorado pikeminnows engage in annual spawning migrations which are necessary to ensure the perpetuation of the species. The timing of migration and spawning for the Colorado pikeminnow is linked to water temperature and flow rates, with warming body temperatures triggering the onset of spawning (Wick et al. 1983). According to Tyus (1990a), "Sexually mature Colorado squawfish spawned in declining flows and increasing water temperatures following spring runoff" (p. 1045). When the appropriate combination of temperature, flow rate, and photoperiod are not present, gonadal maturation and subsequent migration and spawning do not occur (Wick et al. 1983). In a study by Tyus (1990), migrations were associated with water temperatures rising above 9°C, and averaged 140 km in distance. In the Green River Basin, spawning typically occurs on or near the summer solstice each year (Tyus 1990a). The BLM must maintain the natural regime of flow change and temperature so that pikeminnow migration and spawning activities are not disrupted.

Comment: The Little Snake's unusually high peak flow to baseflow ratio, large sediment load, and extremely low base flow have been cited as principal reasons that the Little Snake still harbors a largely native fish fauna, including humpback chub and Colorado pikeminnow (Hawkins et al. 2001a). BLM actions must maintain this natural disparity between peakflow and baseflow.

Response: Thank you for your comments regarding native fish community management. BLM agrees that where native fish communities remain relatively intact, the goal of stream habitat management should be to provide those habitat conditions most favorable to native fishes.

Comment: It is important to note that FLPMA requires the ROD to conform to established state policies and laws, including the Wyoming Game and Fish Department's Mitigation Policy. Currently, mitigation measures in the Proposed Action are not sufficient to prevent a net loss of habitat function for big game

crucial ranges, prairie dog colonies, and juniper obligate songbirds. The Draft EIS for the Rawlins RMP therefore violates FLPMA's requirements to maintain consistency with established state policies.

Response: FLPMA requires that land use plans of the Secretary shall be consistent with state and local plans to the maximum extent he finds consistent with federal law and the purposes of this Act. State of Wyoming policy statements do not constitute state land use plans. Section 1.5, Relationship with Other Plans, in the RMP FEIS, provides that the Rawlins RMP must be consistent with officially approved or adopted resource-related plans of Native American tribes, other federal agencies, and state and local governments to the maximum extent practical. This RMP FEIS is being distributed to other federal agencies, state and local governments, and Native American tribes so that they have the opportunity to identify where specific inconsistencies may exist. See the complete text in the RMP FEIS.

Comment: We do not support off-site mitigation/compensation as a replacement for hard-and-fast standards which prevent unnecessary and undue degradation of lands and resources in the first place. The necessity of off-site mitigation measures under BLM's proposed system is an indicator of unnecessary and undue degradation of sensitive wildlife habitats, which violates FLPMA.

Comment: Appendix 18 contains almost no description of the types of projects that might constitute off-site mitigation. The DEIS includes no discussion of the efficacy of such projects. While we recognize that off-site mitigation is an appropriate tool in some circumstances to conserve wildlife, the strategy laid out in the DEIS is too vague to provide any real hope that the habitat needs of wildlife in the Rawlins Resource Area will be met.

Response: Appendix 18, Compensation (Offsite) Mitigation, includes examples of thresholds that could be used in specific situations for specific actions and states that additional thresholds could be developed over the life of the plan. The consideration of site-specific compensation mitigation and site-specific thresholds would be incorporated into the environmental analysis at the implementation level. The introduction to Appendix 18, Compensation (Offsite) Mitigation, states that offsite or compensation mitigation would be used as a tool to address loss of habitat effectiveness when reclamation, BMPs, and onsite mitigation measures are not adequate to mitigate the impacts of proposed actions. This is just one more tool in the tool box that would be considered. The introduction further states that compensation mitigation would be used as a last choice, not a first choice, when developing mitigation measures. The goal for compensation mitigation is to provide protection for "in kind" habitat or resources. The intent is not to create new habitat but to protect existing habitat offsite by possibly purchase or conservation agreements, etc. This could also include the improvement of habitat function of habitat that may have, through succession, moved beyond the age or condition when it is most effective as a particular wildlife habitat. See the updated Appendix 18, Compensation (Offsite) Mitigation, in the FEIS.

Comment: Land surveys and fencing modification can be extended to driving down the road, taking a photograph in the wild, surveying strutting leks, driving cattle or sheep, pumping a well, reading a meter or mapping surface geology. All of these things would cause a person to be in the field more than one hour. This term is used excessively throughout the document. Recommendation: Causing an animal to move or to be on the alert by human activity of a short duration is no more "disruptive" than a sage grouse hiding when it sees a raptor, or a female deer when it sees a coyote near its young. The definition must be modified to include only those activities where some harm is apparent. The term as presently defined is too inclusive and has onerous implications,

Comment: The protections discussed above involve "timing limitations" during actual exploration or drilling for oil and gas. The EIS should consider whether other types of stipulations are needed (including no surface occupancy), and also whether stipulations and protections are required for ongoing operations

so as to effectively protect wildlife. If additional, needed protections are identified, they should be adopted in the RMP.

Response: The term or concept of “disruptive activities” as part of management actions and impact analysis considers the non-surface disturbing impacts of human activities conducted on the public lands. The use of the term “disruptive activities” and management actions, stipulations, BMPs designed to reduce impacts from disruptive activities are not intended to preclude authorized activities but to influence how they are accomplished. Management actions to reduce disruptive activities in sensitive areas, found in Appendix 15, Best Management Practices, are designed to reduce the impacts caused by continued human presence in areas of sensitive habitat or resources. This increased emphasis on disruptive activities is the result of monitoring results and professional opinion, which indicates that increased human presence, caused by increased industrial development and recreational activities, has caused increased levels of stress to wildlife and has increased avoidance of preferred habitat. See the updated definition of disruptive activities in the Glossary of the RMP FEIS.

Comment: BA-29 Management Status Recovery and Conservation Planning: 1st paragraph, 2nd sentence “If habitat for the Preble's is destroyed or modified, populations in those areas will decline or be extirpated.” Upon what facts is such a broad statement made. If the words “or modified” are deleted it would be appropriate. 4th sentence is equally as broad and should be deleted, as it is not based on what is known about the mouse.

Comment: BA-76 Colorado Butterfly Plant: Habitat Conservation Measures: 2nd paragraph, intensively managing grazing in areas known to contain the plant from July through August to allow plants to bloom and go to seed is not adequate to protect a plant that flowers June to September. Previously the Service has suggested minimal spring grazing and no late season grazing, as the plants are highly palatable. This should be reconsidered.

Response: In the FEIS, the Biological Assessment was developed in coordination with the USFWS. Appropriate changes have been identified in coordination with the USFWS and can be located electronically. The BO contains Terms and Conditions that implement the Reasonable and Prudent Measures for identified species that are necessary and appropriate to minimize impacts of incidental take. The USFWS has determined that livestock may cause some degree of soil disturbance or compaction to the plant, although the population seems to withstand some grazing pressure and may actually rely on these activities for maintenance of their habitat.

Comment: BLM alludes to but fails to cite studies on pronghorn reactions to roads, fences, and other disturbances. However, there is substantially more research, some current, that does support the significance of these concerns and the measures required to avoid such impacts. This analysis should be updated and documented. [Page 4-266, Section: Pronghorn, 2nd Para.]

Comment: In addition to data available from the State game and fish agency, we also want to draw BLM's attention to the National Wetland Inventory, GAP analyses, State Natural Heritage Program databases, and various bird surveys (e.g., Christmas bird counts, breeding bird surveys, etc.). There are many other similar sources of data. BLM should seek out and fully utilize these data in the RMP revision so that it can adequately manage and protect the priceless wildlife resources in the RFO area. There is no indication it has done so in the EIS.

Response: The impact analysis in Chapter 4 of the RMP FEIS has been updated to include additional scientific literature citations for research considered and incorporated into the analysis, appropriate to the discussion, etc. Research articles and available science have been considered by the BLM, however, recommendations, assertions, and opinion made in the literature are by no means required to be

incorporated verbatim into management actions. The BLM is required and has a responsibility and a legislated mandate to evaluate and consider available research within the scope of its multiple-use mandate and to formulate management actions, mitigation measures, BMPs, and eventual decisions that are supported by law, regulation, and policy as well as by available science. As an example, the management actions and mitigation measures in the Proposed Plan for management of greater sage-grouse and sagebrush dominated-habitat conform to the recommendations made in the BLM National Sage-Grouse Strategy (Strategy). The RMP FEIS does not list the scientific citations referenced in the Strategy, because the Strategy recommendations and management actions were supported by the literature cited in the Strategy and by the BLM and multi-agency specialists tasked with developing the Strategy. The same applies to the National Forest Initiative and the Rangeland Health Initiative, among others.

Comment: In the document under Section 4.22 Unavoidable Adverse Impacts, the NAPF contends that the language utilized on page 266 in the paragraphs under the heading of “pronghorn” is understated to a fault. There are, in fact, a number of studies which all conclude that the proliferation of roads and infrastructure associated with extensive extractive industry activity adversely impact pronghorn populations by fracturing habitat and interrupting important seasonal movements. Similarly, fencing, even of a “wildlife friendly” variety also increase fragmentation of habitat. Moreover, displacement of pronghorn, while not thoroughly documented, certainly does exist in direct proportion to the extent of that human disturbance.

Comment: The BLM has failed to apply any of their past experience or existing scientific literature to estimate impacts. Cumulative impacts have not provided an adequate representation of impacts from gas and oil development and hardly mention combined effects of impacts resulting from other management activities such as livestock grazing, recreation or vegetation treatments including fire management. Albeit some mitigation is suggested, the majority of actions discussed will not mitigate impacts to big game animals.

Response: In response to comments received regarding the Cumulative Impacts section of the RMP DEIS, BLM has updated Section 4.20, Cumulative Impacts, in the RMP FEIS to include enhanced descriptions of cumulative impact analysis areas, improved description of reasonably foreseeable future actions, and additional analysis of potential impacts.

Comment: We are years behind in saving our fish and wildlife. Our environment should be our very first concern as our very health is involved with it.

Comment: After spending 6 years on the Wyoming Game and Fish Commission I came to one basic conclusion. Except for about 3 ranchers, everyone wants to see lots of wildlife, but only a handful know what it takes to raise wildlife as we have known it for years. We need unfragmented habitat, without it, wildlife will not survive. PLEASE INSURE THAT WE KEEP AS MUCH AS POSSIBLE!

Comment: It seems the BLM is totally out of touch with the public's views regarding wildlife and habitat as the majority of the public supports the protection of wildlife, habitat and sensitive landscapes. Your policy is to maximize development whether it is oil and gas wells or wind farms (draft EIS on wind energy development). The BLM's policy allowing year round drilling in the Pinedale area is just flat out irresponsible. You are catering to businesses and not the public. Wildlife and habitat protection has to be first priority. A no net loss of habitat rule is required for every approved project.

Comment: I urge you to move drilling away from sensitive wildlife habitats. Impose “no surface occupancy” stipulations for any oil and gas drilling on crucial big game winter ranges, prairie dog colonies, mountain plover habitat, floodplains, within three miles of sage grouse leks and one mile of raptor nests.

Response: The BLM manages a diversity of land uses and programs in coordination both internally and externally with other agencies, including the WGFD, the USFS, and the USFWS. The BLM works in coordination with the WGFD and with other agencies to minimize impacts to wildlife species, such as habitat fragmentation, by implementing BMPs, meeting Standards For Healthy Rangelands, implementing range improvement projects and vegetation treatments, and practicing forest health initiatives. In addition, the agencies work together cooperatively to protect, maintain, and enhance a diversity of wildlife habitat types.

Comment: The plan options need to be more sensitive to wildlife winter range, migration routes and sage grouse habitat.

Comment: Is it going to take the listing of the sage grouse as endangered for you to get the hint that our public wild lands in the west are in critical danger? What about the substantial decrease of mule deer numbers? Do we need them to be listed before you pull your heads out of the sand and see what impacts you are causing from these major developments i.e. Pinedale WY? The minor rewards from extracting what little CBM there is in the area are quite minuscule in comparison to the centuries of devastation that will be caused to the environment by drilling this many wells and spilling the potentially hazardous water onto the ground.

Comment: BLM's proposal to place seasonal timing restrictions on activities such a cultural, wildlife and land surveys will delay production and drive up the cost of finding and developing oil. Already many leases are issued with stipulations that restrict the time of year an operator may drill wells thus causing cyclical employment cycles within the oil and gas industry. This will exacerbate that problem. BLM has not shown that temporary activities such as surveys cause irreparable harm to wildlife or other resources. These uses must continue to allow operations to continue throughout the year.

Comment: I urge you to move drilling away from sensitive wildlife habitats. Impose "no surface occupancy" stipulations for any oil and gas drilling on crucial big game winter ranges, prairie dog colonies, mountain plover habitat, floodplains, within three miles of sage grouse leks and one mile of raptor nests.

Comment: The Atlantic Rim and is one of the last remaining open country in an area that is rapidly being overrun by the oil and gas industry. These landscapes are such spectacular vistas that they are worthy of National Park status. I was shocked to learn that no baseline data exists with which to compare wildlife movement studies today. Please give appropriate protection to the wildlife migration corridors, crucial winter range, and within three miles of sage grouse leks and mountain plover nesting areas and raptor nests. This will allow production of the mineral resources with directional drilling while protecting the sensitive lands surface.

Comment: Many critical wildlife areas (big game winter and birthing ranges, big game migration corridors, sage grouse strutting and brood areas, and raptor nesting areas to mention a few) are not going to be protected by seasonal limitations alone to the degree implied by the industry and fed to the public. This management plan needs to step back and allow the detailed investigations on the impacts of development and the effectiveness of seasonal limitations on wildlife in areas like the Pinedale anticline and upper Green River are to be brought forward before widespread leasing is allowed. At that point in time an honest assessment can be given to the citizens of Wyoming and the nation on what can be expected as resource tradeoffs for full energy development

Response: The RMP has wildlife protection measures in place that are identified at the planning level and in coordination with other agencies. For example, big game crucial winter range Total Licensing System: In addition to timing stipulations (no development from November 15 to April 30 in big game crucial

winter range), RFO has established BMPs (Appendix 15 in the RFO Draft RMP) as additional protective measures for big game crucial winter range. Calving stipulations are from May 1 through June 30 of each year. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitat where surface disturbing and disruptive activities are authorized. Another example includes the greater sage-grouse, with sage-grouse buffer and seasonal restrictions: RFO is currently utilizing the BLM National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan, and when the local Sage-Grouse Working Group's plan becomes available, the strategies in this document will be implemented for grouse protection as well. Around known lek sites, the National Sage-Grouse Strategy uses ¼-mile NSO as the best available scientific information available to protect nesting grouse; currently the RFO follows these guidelines. RFO is currently proposing changing this from ¼-mile protection from the lek center to ¼ mile around the lek perimeter, which will extend the protective NSO. In addition, once nesting and brood-rearing habitat has been identified, RFO will use the nesting and brood-rearing habitat boundaries, even if they are outside of the 2-mile lek timing buffer. Until such time as the strategies change, RFO and BLM are currently using these requirements as the best available scientific evidence to protect grouse. Using BMPs such as centralizing facilities, directional drilling, and no operations between the hours of 6 p.m. and 9 a.m., RFO seeks to minimize impacts to grouse during the critical strutting and nesting season. As noted, RFO and WGFD are still in the process of identifying nesting habitat. In the future, these areas (even if outside the 2-mile lek buffer) will have seasonal timing stipulations placed on them.

Comment: I would like to ask that you take the stipulations out of the plan that require needless wildlife mitigation procedures and that classify too many activities as disruptive, giving the BLM enough leeway to restrict any operations from being conducted at all in the RMPPA.

Comment: Many wildlife stipulations or management objectives are based upon inaccurate scientific data or assumptions and must be revised; i.e., sage grouse, mountain plover and white tailed prairie dogs.

Response: The BLM applies mitigation measures that are founded on the best scientific information available, in coordination with other agencies, to protect a diversity of resources.

Comment: In the Exception and Waiver Criteria of the Rawlins RMP the BLM states that the "Wyoming Game and Fish Department has the authority to set standards for exceptions and waivers to ensure that requests do not jeopardize wildlife populations." Giving the Wyoming Game and fish Department the authority to determine which requests will be granted would be a very poor decision on the part of the BLM. The BLM would make a severe mistake if it were to carry through with these criteria. It simply shows a lack of balance. The BLM would do a much better job of balancing these needs and goals if it were to work with the game and fish department to set appropriate standards. The BLM should then be solely responsible for upholding its multiple use mandate by being in charge of issuing exceptions and waivers.

Comment: The BLM needs to maintain authority over the granting of exceptions and waivers. This authority over federal land should not be granted to the game and fish department, as a state agency.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or USFWS, depending on species, are completed. Exceptions are only granted, if conditions warrant and wildlife will not be affected. Exceptions are not granted, if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests.

Comment: We believe that mountain plover nesting concentration areas must be protected from intensive development and the heavy vehicle traffic that accompanies it. The proposed Rawlins RMP provides for

“No surface occupancy in mountain plover concentration areas.” DEIS at A16-1. We agree with this course of action for the future management of these sensitive habitats, so long as waivers or exceptions are not granted for these NSO standards.

Comment: In the Western Heritage Alternative, we have provided locations of four plover nesting concentration areas, as documented by the research of Dr. Fritz Knopf and Regan Plumb, as potential ACECs: Eagle Nest Springs, Mexican Flats, and two areas in the Shirley Basin proposed as ACECs under the Western Heritage Alternative. We also know of mountain plover nesting concentration area in the Seminole Road CBM Pilot Project area and the Foote Creek Rim (which may have been destroyed by a wind turbine project). Based on our reading of the DEIS, these areas would be protected from drilling, road construction, wind turbines, and other activities, a policy that we support. Please confirm that these particular known mountain plover nesting concentration areas will be placed under No Surface Occupancy standards under the Preferred Alternative of the Rawlins RMP. In cases where lands would be placed off-limits to future surface disturbance in the form of oil and gas drilling wells are sited within ½ mile of concentration areas, a ground-level marker rather than a 4-foot tall marker with perch inhibitor would more effectively ensure that raptor predation near nesting areas is not artificially increased.

Comment: We remain deeply concerned about the continued viability of the mountain plover within the Rawlins Field Office boundaries, particularly in light of the heavy industrial development projected under all four of the BLM’s alternatives in this Draft EIS.

Comment: The exact nature of monitoring surveys for Mountain Plovers is not well described and will leave serious gaps in the information base from which to make decisions about plover management. In addition, it is not clear who will conduct the surveys, how they will be trained, and how frequently surveys will be conducted. I did not find any specific details about survey methodology, and I encourage you to again consider the points I raised in my comments on the Great Divide RMP.

Response: Mountain plover are identified as a BLM 6840 sensitive species and are discussed, evaluated, and protected in the RMP FEIS in Section 1.4, Wildlife; Table 2-1, Detailed Comparison of Alternatives; Section 3.19.1, General Wildlife; Section 3.19.3, BLM Wyoming State Director’s Sensitive Species List Habitat Management; Section 4.19, Wildlife and Fish; Appendix 15, Best Management Practices for Reducing Surface Disturbance and Disruptive Activities; and Appendix 16, Mountain Plover Stipulations: Occupied Habitat Protection Measures.

Comment: Cliffs provide important nesting substrates preferred by a broad spectrum of raptors. A study near Medicine Bow, Wyoming found that cliffs provided the single most important nesting habitat for raptor species in the region, and 93% of all prairie falcon nests were found on cliffs, despite the comparative rarity of this landform in the Medicine Bow area (MacLaren et al. 1988). In a Utah study, prairie falcons and golden eagles nested exclusively on cliff sites (Smith and Murphy 1982). Thus, in terms of value to nesting raptors, areas with cliff topography may be of heightened conservation importance. For this reason, cliff areas with a history of raptor nesting should be accorded the same nest buffers (2 miles) as ferruginous hawk nests.

Comment: 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 Great Divide; a more conservative approach is needed in order to safeguard raptor viability in 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). 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.

Comment: The BLM should establish adequate nest buffers (on the order of 2 miles in diameter) 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 from vehicle traffic that does occur during the nesting period.

Response: There are currently disturbance buffers around active raptor nests. Table 2-1, Detailed Comparison of Alternatives, identifies protection measures that the BLM will implement to protect nesting raptors. These buffers are based on scientific research and are sufficient to protect the raptors and their nests.

Comment: BLM's rationale that significant impacts will not accrue to big game are based upon a fundamental misconception that has been formally recognized as such by WGFD, the lead agency charged with the management of wildlife populations in the project area.

Comment: B. BLM Fails to Provide Scientifically Supported Mitigation Measures for Big Game Crucial Ranges

Response: BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species from all activities authorized on federal lands, including activities located within big game seasonal ranges and migration corridors. At the project-specific level, BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Seasonal stipulations can be used to reduce impacts from both surface disturbing activities and also disruptive activities. BLM considers WGFD guidelines and recommendations (Minimum Programmatic Standards Recommended by the WGFD to Sustain Important Wildlife Habitats Affected by Oil and Gas Development,) to reduce impacts where needed, which is also applicable to individual herd units.

Comment: The Preferred Alternative Fails to Ensure that Wildlife Populations Are Sustained. First among the Wyoming Game and Fish Department's (WGFD)- "Important Misconceptions about Wildlife Responses to Oil and Gas Disturbances" is the assumption that: "[w]ildlife relocate to adjacent, unaffected habitats, so there really is no impact (i.e., "they just move out of the way")." WGFD Recommendations at 6. The Department points out that the "[c]onsequences of such displacement are lower survival, lower reproductive success, lower recruitment, and ultimately lower carrying capacity and reduced populations." Id. WGFD also lists the "critical misconception" that: "[e]xisting seasonal use stipulations, standard operating procedures, and reclamation practices are adequate consideration for wildlife resources affected by oil and gas development." Id. at 7. [footnote 18]

Comment: In one of the areas for which BLM proposed some of its most intensive and complicated mitigation measures, the Upper Muddy Creek area, the agency claims: "Intensive management of surface disturbance activities, through BMPs, timing and distance stipulations, and other mitigations, would minimize impacts on wildlife by reducing disturbance to raptors, sage-grouse, prairie dogs, native fishes, and wintering big game." DEIS at 4-153. BLM provides no supporting evidence from credible sources to support this outlandish claim. But not only has the agency failed to establish any foundation in fact for its wildly optimistic claims, but its own language proves it to be a lie. The minimum impact to the wildlife and fish listed above is zero impact. Zero impact is easily achievable through placing the area off-limits to surface-disturbing activities. The agency's admission that the proposed mitigation measures can at best reduce, but not eliminate, these impacts is proof positive that same mitigation measures do not minimize

impacts to sensitive wildlife and fishes. But the BLM never considers the eminently reasonable alternative of eliminating these impacts entirely by eliminating their cause: surface-disturbing activities.

Response: Existing seasonal use stipulations and standard operating procedures are developed in coordination with the WGFD. BLM is always striving to improve reclamation practices to reduce erosion, improve forage, and cover for wildlife. BLM does not make the assumption that wildlife relocate to adjacent, unaffected habitat.. BLM analyzes short-term and long-term impacts to wildlife habitat and tries to mitigate impacts through the use of BMPs. Appendix 13, Reducing Nonpoint Source Pollution with Best Management Practices; Appendix 14, Biological Opinion; Appendix 15, Best Management Practices for Reducing Surface Disturbance and Disruptive Activities; and Appendix 16, Mountain Plover Stipulations: Occupied Habitat Protection Measures, all contain information to implement BMPs that BLM uses to reduce impacts.

Comment: Before the BLM can rely on these tiny buffers as a mitigation measure, it is “required to adequately study any measure identified as having a reasonable chance of mitigating a potentially significant impact of a proposed action and reasonably assess the likelihood that the impact will be mitigated to insignificance by the adoption of that measure.” Klamath Siskiyou Wildlands Ctr., 157 IBLA 332, 338 (2002). “NEPA requires an analysis of the proposed mitigation measures and how effective they would be in reducing the impact to insignificance.” Id. (quoting Powder River Basin Resource Council, 120 IBLA 47, 60 (1991)). The BLM should enlarge its buffers to be in line with USFWS and other BLM Field Offices.

Comment: The Continuation of Existing Management alternative impact analysis states that “Existing prairie dog towns would be avoided during surface disturbing activities, which would ensure that the species would not suffer any significant loss of habitat” (p. 4-155). How can the BLM show that current management is not resulting in white-tailed prairie dog habitat loss? There is no indication that the Wyoming BLM actually knows where prairie dog colonies occur on its lands.

Response: The BLM implements the BLM Manual 6840, which protects white-tailed prairie dogs and their habitat during the assessment, authorization, and implementation of proposed projects. Biologists complete onsite field investigations of all proposed activities to identify if and where white-tailed prairie dog habitat exists and implements protection measures to avoid and/or reduce impacts to this habitat.

Comment: Please do not open up Wyoming's Great Divide to oil and gas development and mineral leasing without having effective measures in place to conserve wildlife and essential habitats. Don't leave sensitive areas of Wyoming's high desert pockmarked with more than 8,000 oil and gas wells. You plan jeopardizes big game habitat and sage grouse as well as prime hunting and recreation areas.

Response: Under the previous Rawlins RMP, the majority of the field office has been leased. Once this occurs, the oil & gas industry has lease rights to obtain access to their leases. This limits the amounts and size of NSOs the BLM can require. In the RMP revision process, RFO will review areas in the field office that have not yet been leased to determine if these areas should be placed off-limits. Should any leases expire without activity, RFO may also reevaluate re-leasing these areas if sensitive wildlife issues are present.

Comment: In Table 2-1, page 2.75, it states that: “the use of malathion or other pesticides would be authorized near Wyoming toad occupied habitats...”. This is too vague. What does “near” mean? More specific protections measures need to be provided and reasons for the need to apply poisons given. Also, where are the potential impacts of such pesticide use discussed? The requisite analysis must include in situ research to be meaningful. In this context, it also states on p. ES-13, that animal damage control,

including the use of poisons toxic to vertebrate animals will be considered. Is the BLM causing situations in which it is then necessary to apply animal damage control measures and poisons?

Comment: First Column, Second Row. The DEIS states that, under the Preferred Alternative, “the use of malathion or other pesticide would be authorized near Wyoming toad occupied habitats, on a case-by-case basis.” The Service requests that the Bureau clarify under what circumstances the Bureau would permit the use of malathion in close proximity to occupied habitat of the federally endangered Wyoming toad. Additionally, we request that the Bureau identify which “other pesticide” would potentially be used near occupied Wyoming toad habitats. The service recommends against the use of a general insecticide such as malathion in this situation. Malathion could reduce the insect food source needed for survival of Wyoming toads and may also be toxic to the toads themselves. If it is necessary for the Bureau to authorize the use of pesticides for either mosquito or grasshopper control, we recommend the use of *Bacillus thuringiensis israelensis* (Bti) or diflubenzuron (Dimilion®). Both Bti and Dimilion® are more specific to the types of insects targeted (USDA 2002, USFWS 1998) and, consequently, their use would likely be less detrimental to Wyoming toads than would the use of malathion. The Service recommends that the Bureau notify the Service prior to the use of pesticides in close proximity to the habitats of listed species.

Response: The management action includes other pesticides which would include more than just Malathion and protection measures would be identified at the site specific level following an environmental analysis. Specific actions identified for T&E species are located in Appendix 14-Biological Opinion. This appendix contains conservation measures and best management practices that will be implemented to protect the Wyoming toad.

Comment: Depending on climate shifts from year to year, abundant vegetation associated with favorable growing conditions can decrease plover observation distance from 400m to 100m at the same site (Knowles et al. 1999). In Montana, surveys must be completed prior to mid-July fledging dates, and observability is higher during courtship and brood-rearing periods than it is during incubation of eggs (Knowles et al. 1999).

Comment: As in the Great Divide RMP, mitigation measures specific to the plover are not discussed. In particular (and as I stated in my comments about the Great Divide RMP), I believe you need to specifically outline methods for enhancing existing plover habitat and possibly restoring impacted habitat, especially when proposed development activities are likely to result in some loss of existing plover habitat.

Response: Appendix 17 Monitoring and Evaluation of the FEIS describes monitoring and evaluation, which measures the effectiveness of existing actions through monitoring and application of new scientific research, including that for the mountain plover. Monitoring and evaluation analyzes current resource conditions as a result of implemented actions and identifies and recommends alternatives or modified action when required. Appendix 16, Mountain Plover Stipulations provides further protection for the bird.

Comment: Under the Draft EIS, all alternatives appear to rely heavily on seasonal stipulations to “protect” big game crucial ranges. There is no alternative that would put these sensitive habitats off-limits to future surface disturbance. It is important to note that impacts to wintering big game are not limited to the construction phase of oil and gas development, but continue at a significant level throughout the production phase. Stipulations that limit only construction and drilling activities do little to prevent the long-term disturbance and displacement of big game from their crucial winter ranges and calving areas. Thus, these seasonal stipulations are inadequate to prevent major impacts to big game populations on their crucial winter ranges. Crucial habitat is defined as “the determining factor in a population’s ability to maintain itself at a certain level” (WGFD 2000).

Comment: Based upon current science regarding fragmentation of big game habitats, we believe BLM should adopt density standards for development in all crucial ranges and migration routes. This information is necessary in order to make an informed decision about the true impact of additional oil and gas development and/or other roads and rights-of-way on big game populations within the Resource Area.[footnote 30]

Response: The BLM utilizes BMPs to reduce and/or eliminate potential impacts to wildlife species. At the project specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Well density has been used in addition to seasonal stipulations as mitigation to reduce impacts to wildlife. The BLM considers WGFD guidelines and recommendations (Minimum Programmatic Standards Recommended by the Wyoming Game and Fish department to sustain important Wildlife Habitats affected by Oil and Gas Development) to reduce impacts where needed.

Comment: I've heard that nesting-season monitoring of ferruginous hawks and perhaps other raptors has been discontinued. Is this correct? What is your regimen for keeping track of population trends for (a) ferruginous hawks, (b) other raptors, (c) mountain plover, (d) burrowing owl, and (e) sage thrasher?

Comment: The RMP notes that BLM has conducted studies of nesting raptors for over two decades. Yet, there are no quantified data presented as to the number of nesting pairs known for specific areas with proposed development. This oversight is especially troublesome for ferruginous hawks, a species which has received national concern and attention. There is also no discussion as to environmental consequences of the widespread policy of the BLM to promote ferruginous hawk nesting on artificial nest structures as opposed to natural nest substrates that may be in the way of development or proposed human activity in the Rawlins RMP area.

Response: Monitoring of ferruginous hawks and other raptors has not been discontinued. BLM maintains a data base to track observations. RFO raptor monitoring data has shown that nesting activity and recruitment has remained relatively stable over the last 10 years. The 1200 foot NSO from a ferruginous hawk nest and the 825 foot for all other raptor species provided adequate protection from disturbance to raptor nests; this is the research that RFO has utilized for the raptor NSO areas. RFO personnel identified issues of concern for T&E species within the Biological Assessment located on the Rawlins RMP website. The BO is located in Appendix 14 in the RMP FEIS. Currently, BLM is working with the WGFD to obtain population trend information.

Comment: Affected Environment - Baseline conditions - The DEIS contains no population estimate, survival data, production data, or density estimates for big game populations residing in the planning area. Without these data, impacts to pronghorn deer and elk populations resulting from implementation of any management alternatives cannot credibly be evaluated. Appendix 17 of the DEIS indicates the "action trigger" is a "downward trend in animal occupancy" determined by annual, aerial monitoring of big game populations. How can the BLM determine if there is a downward trend with no baseline data? It is not possible to assess impacts resulting from implementation of any alternatives based on information presented in the current DEIS.

Comment: FLPMA requires BLM to conduct inventories of resources on the public lands. 43 U.S.C. § 1711(a); see also BLM Manual 1601 at .01. BLM's land use planning regulations require each RMP to include monitoring of public lands resources. 43 C.F.R. § 1610.4-9; see also BLM Handbook H-1601-1 at V-1. BLM has been working on this plan amendment for more than two years. The agency entrusted with the conservation of our public lands ought to have in its possession the necessary data to make informed decisions about the management of those lands. BLM should be prepared to share that information in this EIS in a format the public can read and understand. 40 C.F.R. § 1502.8.

Response: The BLM agrees that both NEPA and FLPMA require the use of baseline information. Baseline information in the form of wildlife population data, existing resource data, existing use data, etc. is all baseline information and was used to, as an example, develop all of the maps that appear in the RMP FEIS. The RMP FEIS includes additional baseline resource information in Chapter 3 as well as in various appendices. The amount of baseline information and the use of this information in support of the impact analysis in Chapter 4 of the FEIS has been expanded as well. Neither NEPA nor the CEQ regulations at 40 CFR 1500 require that baseline data collection and inclusion in NEPA documents be exhaustive collections of every conceivable source or reference 40 CFR 1502.15. The summary of big game population trend data and maps of big game habitat areas are sufficient to support impact analysis at the RMP level. However, as additional support to the analysis of impacts in the RMP FEIS and in support of comment responses, additional big game herd unit population data has been included in the RMP FEIS at various locations in Chapters 3 and 4.

Comment: Page 1-10; Issue 5 - Special Status Species Management: The DEIS fails to provide justification for providing T&E-like protection to “sensitive plant and animal species”. Comment: White Tailed Prairie Dogs, Black Tailed Prairie Dogs, as well as the Greater Sage-Grouse and the Mountain Plover were found to be not warranted for listing by the FWS because of a lack of threats. This kind of additional regulatory protection is in effect de facto listing which is inappropriate. BLM must provide scientific justification (references/citations) for these T&E-like protection measures.

Comment: pp. A14-1, 1st sentence Comment: As a general comment, we are concerned that conservation measures are being applied equally for T&E species and special status species. These two categories are legally different and should not be applied universally.

Response: The BLM Manual 6840 requires the agency to protect Special Status Species, which has provided reasons in some cases for the USFWS to not list a particular species. The proactive management of these species prevents the species from being listed and actually reduces the regulatory affects pertaining to protection of wildlife and their associated habitat.

Comment: Furthermore, I ask for an outline of how the Rawlins BLM intends to enforce seasonal protections. I ask that the Rawlins BLM provide evidence from previous land management actions that shows that seasonal protections are not waived (Biodiversity Conservation Alliance analysis suggests that during one year -80% of requests for waivers were granted.) I ask the Rawlins BLM to provide credible scientific sources that were used to make the assumption that seasonal protection is adequate because I think that assumption not accurate.

Comment: Some of the most important protections for wildlife are presented in Appendix 15 of the proposed plan, yet they do not apply in all cases and by the Rawlins BLM's own terms the provisions are not mandatory (they "should" be applied). Appendix 15. Since they are not stipulations required as a condition to receiving a lease, actually applying these protections may be problematic due to the contractual and property right BLM conveys when it issues a lease, which reduces its ability to condition development. This is an example of a place where the Rawlins BLM has some room to interpret the law. I urge the Rawlins BLM to outline a specific plan that can be applied at the EA, EIS or APD level that would guide actions.

Response: The BLM applies seasonal restrictions (stipulations when applied to an oil and gas lease) to protect a diversity of wildlife species during critical time periods throughout the year. Seasonal protection measures for wildlife are identified based on a combination of field site evaluations, experience and consultations with either the WGFD or the USFWS. In addition, BMPs are applied to reduce and/or remove disturbance to wildlife and associated habitat. These actions would ensure the long-term viability of wildlife and protection of habitat within the RMPPA. Exception requests would be considered for

approval only following site specific field evaluations and consultation with either the WGFD or the USFWS, depending on the wildlife species of concern, and is described in Appendix 9 in the RMP FEIS.

Comment: ...rigorous standards are needed for all existing water developments in order to sustain adequate habitat for viable populations of aquatic species downstream. Spring flushes of water are needed to remove silt deposited during artificially reduced summer flows; flushing flows at appropriate levels should occur during spring runoff in order to scour spawning gravels and prevent silt buildup that is harmful to both invertebrate and fishes “It is imperative that adequate instream flows be required in all streams proposed for water diversion in the future.” Thus, minimum bypass flow levels must be guaranteed for all trout-bearing streams to maintain the habitat effectiveness at 80% throughout the year to meet the need of adult fish.

Comment: Many federal projects have potentially disastrous effects on aquatic ecosystems when cumulative impacts are examined. Frissell and Bayles (1996, p.231) summed up the current state of affairs as follows: “For aquatic systems in the west, the management crisis arises from the cumulative and persistent effects of thousands of miles of roads, thousands of dams, and a century of logging, grazing, mining, cropland farming, channelization, and irrigation diversion.” In Colorado, Ryan (1994) noted that water diversion led to downstream dewatering during low-flow years, which may lead to inadequate depths or excessive temperatures that threaten the survival of populations of aquatic species. Wesche (1987, p. 14) assessed the effects of the Rob Roy dam on the stream channel dynamics of Douglas Creek in the Medicine Bow Mountains, and stated that “it can be estimated that natural processes will require upwards of 50 years to bring the channel back into equilibrium with the flow regime.” Moratoriums on new water diversion projects and the maintenance of minimum flows in streams affected by existing diversions will ensure that existing populations of this trout will have sufficient water to survive.

Response: Actions that may potentially alter instream flow would be considered on a case by case basis. The BLM would work in cooperation with state agencies to minimize and or mitigate impacts to fisheries. A primary goal of the BLM’s water quality, watershed, and soils management program is to “maintain or improve surface and groundwater quantity and quality consistent with applicable state and federal standards and regulations” (Table 2-1). However, authority of instream flow lies with the state of Wyoming.

Comment: The revised RMP attempts to provide planning efforts for many species of native flora and fauna, however, we note a significant amount of narrative devoted primarily to endangered and sensitive species. Adequate data regarding other species was woefully lacking. It was most disappointing to us that planning efforts were not sufficient to identify and document needs for sustaining or enhancing rangelands to meet the biological requirements of pronghorn. Then too, the need to identify procedures and practices for other land uses (e.g. livestock grazing, mining and oil or gas exploration, and others) relative to their impacts on pronghorn were limited and at times inadequate. Therefore, we recommend that additional input be provided to meet the biological requirements of pronghorn and the protection of crucial habitats. In addition, we suggest that specific management practices be provided to address the needs of other uses of the land (specifically livestock grazing, mining, and oil or gas developments) that have deleterious effects on the welfare of pronghorn.

Response: The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species from all activities authorized on federal lands, including activities located within big game migration corridors. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Seasonal stipulations can be used to reduce impacts from both surface disturbing activities and also disruptive activities. The BLM considers WGFD guidelines and recommendations (Minimum Programmatic Standards Recommended by the WGFD to sustain important

Wildlife Habitats Affected by Oil and Gas Development) to reduce impacts where needed, which is also applicable to individual herd units.

Comment: DEIS. Chapter 2, Water Quality, Watershed, and Soil Management Table, Page 66, First Column, Third Row. The DEIS states that, under the preferred Alternative, “activities in the Muddy Creek Watershed that result in water depletion would be allowed provided that depletions are mitigated.” The Muddy Creek Watershed is part of the Colorado River System. Formal consultation is required for projects that may lead to depletions of water to the Colorado River system. Federal agency actions resulting in water depletions to the Colorado River system may affect the endangered Bonytail (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), Humpback chub (*Gila cypha*), and Razorback sucker (*Xyrauchen texanus*) downstream in the Green and Colorado River systems. In addition, depletions may contribute to the destruction or adverse modification of designated critical habitat for these four species. A river Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) was initiated on January 22, 1988. Participation in the Recovery program was intended to be the reasonable and prudent alternative to avoid jeopardy to the endangered fish species by depletions for the Upper Colorado River. The DEIS should describe the Bureau’s participation in this recovery program.

Response: Thank you for your comments. Please see Appendix 11 for further clarification.

Comment: [We suggest that the BA be rewritten to...] The Bureau has stated that “the Preferred alternative [Alternative 4] of the DEIS represents the management actions recommended by the Bureau’s Rawlins Field Manager that best resolve planning issues within the RMPPA and that best promote balanced multiple-use objectives.” The Service has, therefore, focused its review of the DEIS on the environmental consequences of this alternative. The Service anticipates that the Bureau will initiate formal Section 7 consultation with the Service over this alternative.

Response: A Biological Assessment has been prepared and sent to the Service. The Service has responded with a letter stating that all information needed to complete a BO pursuant to Section 7 of the Act (50 CFR 402.14) has been provided. The BO is located in Appendix 14.

Comment: Many wildlife stipulations or management objectives are based upon inaccurate scientific data or assumptions and must be revised; i.e., sage-grouse, mountain plover and white tailed prairie dogs. In addition, BLM needs to assess the impacts of overlapping timing limitation stipulations on the oil and gas industry, increased impacts to resources and socio-economic impacts.

Response: BLM continues to support wildlife research that helps to direct our management practices. In addition, the impacts of overlapping timing restrictions are included in Section 4.8, Minerals, in the RMP FEIS.

Comment: The Service [Fish & Wildlife] realized that the Bureau is currently preparing a Biological Assessment (BA) which will analyze the impacts to species listed under the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et. Seq.), due to implementation of the Rawlins RMP revision. The version of the BA included with the DEIS is a working draft which has, at this time, already undergone some degree of revision. Service biologist Ales Schubert met with the Bureau biologists Mary Read and Frank Blomquists on December 10, 2004 and provided both with written and verbal comments directly to them on threat draft at that time. Therefore, the Service will not repeat those comments in detail herein. General comments on the current state of the working draft of the BA, as provided previously, are as follows: (1) the actual effects to the listed species analyzed are not identified in many of the effects determinations provided, and (2) the BA, as currently worded, often does not give a clear line of reasoning which leads up to the determinations provided.

Response: A Biological Assessment has been prepared and sent to the Service. The Service has responded with a letter stating that all information needed to complete a BO pursuant to Section 7 of the Act (50 CFR 402.14) has been provided. The BO is located in Appendix 14.

Comment: Wildlife Stipulations & Management: Numerous wildlife stipulations management objectives are not based upon sound science principles and data from current project-level NEPA documents in determining areas of concern and species-specific mitigation in the draft plan. Additionally, a localized approach is crucial to retain needed flexibility for BLM, operator, and other interested parties.

Response: The BLM applies mitigation measures that are founded on the best scientific information available, in coordination with other agencies, to protect a diversity of resources.

Comment: [We suggest that the BA be rewritten to...] To date, the Service has been updated periodically on the status of the RMP revision BA and has reviewed and provided to the Bureau both written and verbal comments on several drafts. The Service suggests that this coordination be continued until a final BA has been complete by the Bureau and the Service has determined that it has received all information necessary to complete a Biological Opinion (BO) pursuant to Section 7 of the Act (50 CFR §402.14).

Response: A Biological Assessment has been prepared and sent to the Service. The Service has responded with a letter stating that all information needed to complete a BO pursuant to Section 7 of the Act (50 CFR 402.14) has been provided. The BO is located in Appendix 14.

Comment: The only solution I see in the plan for protecting wildlife is seasonal work stipulations. These kinds of stipulations have been ineffective, both because wildlife avoids activity and infrastructure, whether people are there or not, and because there is very little base-line data with which to measure impacts. I have read wildlife biologist, Bill Alldedge's comments on the RMP, and he says that your way of measuring if development is having unacceptable impacts is if the herds decline. The problem with this is, the herds are already in decline in south-central Wyoming, and furthermore, there is no clear baseline from which to start that measurement.

Response: In addition to timing stipulations (no development from November 15 to April 30 in big game crucial winter range), RFO has established BM's (Appendix 15 in the RFO Draft RMP) as additional protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitat, where surface disturbing and disruptive activities are authorized.

Comment: [I urge you to amend the preferred alternative to require oil, gas, coal, and other operations or development to take extraordinary precautions to] avoid placing any roads, fences, activities or structures in or across wildlife migration corridors, including, but not limited to migration corridors for sage grouse, pronghorns, bison, elk and bighorn sheep.

Response: Presently, WGFD has not refined its data on big game migration corridors within the RFO. RFO is starting to quantify these crucial areas, as funding permits. For example, RFO is a cooperator with WGFD in identifying migration corridors on the Atlantic Rim area. This is just the start of this effort; more of this intensive work will be done in the future. As these areas are identified, appropriate protection measures will be applied.

Comment: As an aid to reducing effects on wildlife, please consider reducing the extent of the "Engineered" roads BLM is now requiring for access to even exploratory well locations. Roads should be allowed to be minimal in nature until a well is proven to be productive, at which time it could be

upgraded to a final configuration. This would allow for much smaller disturbed areas where such wells are not successful, and reclamation easier.

Response: The BLM is required to comply with regulations during road construction and does consider alternatives to minimize impacts during this time period.

Comment: Scientific evidence from other parts of the state indicate that mule deer change their habits in order to avoid drill rigs, roads, and well pads (see Hall Sawyer's work on the Pinedale Anticline in the Upper Green River Valley from the fall of 2004). Other scientific studies show that elk avoid roads, and that fences are known to fragment habitat for pronghorn. Given these well-known facts, I do not understand why the Resource Management Plan does not call for directional drilling and clustered well pads as a matter of course. This should be a standard operating procedure in any place where development is taking place in wildlife habitat, in order to minimize the amount of habitat encroachment created by increased infrastructure and surface occupancy.

Response: BMPs—such as remote sensing of wells to reduce visits, directional drilling to reduce habitat loss, and closing roads during critical time periods after development occurs—can all be adopted, if conditions warrant their application.

Comment: Wildlife needs receive short shrift, if any at all. Such restrictions as are in the plan are a sham, similar to what we've seen in the Upper Green River area, where winter drilling, intense road construction, and other manifestations of "industrial America" easily win the day over pronghorn, deer, elk, and other 'natives'.

Response: The RMP has wildlife protection measures in place that are identified at the planning level and in coordination with other agencies. The big game crucial winter range NSO is an example: In addition to timing stipulations (no development from November 15 to April 30 in big game crucial winter range), RFO has established BMPs (Appendix 15 in the RFO Draft RMP) as additional protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitat, where surface disturbing and disruptive activities are authorized.

Comment: The RMP should not support arbitrary and meaningless studies such as black footed ferret studies. This modern day equivalent of the "snipe hunt" wastes huge amounts of professional time, causes huge unnecessary delays in many projects not to mention a waste of valuable exploration dollars, all for nothing of public benefit. We don't do any studies for Red Parrots in Wyoming, and they certainly are rare in the wilds of Wyoming. Even if there were a black footed ferret in Wyoming, it is a huge stretch to claim any significant impact from exploration activities. Our country can no longer afford to waste its investment in environmental concerns on nonsense. The RMP should focus on real problems where dollars invested result in a public benefit.

Response: BFFs do occur in Wyoming because of reintroduction efforts. The Service and the WGFD are engaged in a cooperative effort to determine the potential of BFFs and their habitat in Wyoming. BLM, as well as exploration companies, must follow ESA requirements.

Comment: I would like to express my disappointment in the Bureau's proposed lack of protection of the above mentioned areas [Pedro Mountains and Cow Creek Areas]. This region represents a crucial wildlife migration corridor and deserves a higher degree of protection for the wildlife resources living thereon.

Response: In compliance with 43 U.S.C. 1712(c)2 and 1702(a), BLM reviewed all nominated ACECs as specified in BLM Manual, Section 1613-1. Nominations were evaluated based on relevance and

importance criteria in 43 CFR 1610.7-2 and BLM Manual 1613-1-.11 and .12. Areas that met both importance and relevance criteria were considered as potential ACECs in the RMP/EIS. A summary of the ACEC process is located in Appendix 22. Nominated ACECs that failed to meet both relevance and importance criteria were not considered in the RMP/EIS alternatives.

Comment: I would like to ask that you take the stipulations out of the plan that require needless wildlife mitigation procedures and that classify too many activities as disruptive, giving the BLM enough leeway to restrict any operations from being conducted at all in the RMPPA.

Response: The BLM is a multiple-use agency and applies appropriate mitigation to surface disturbing and other activities, in coordination with other agencies, to protect a diversity of resources.

Comment: Protect crucial winter ranges for elk, deer, pronghorn, woodland songbirds and do the right thing for our state.

Response: The BLM applies mitigation measures that are founded on the best scientific information available, in coordination with other agencies, to protect a diversity of resources.

Comment: Do you know anything about the burrowing owl? They are actually this really cool little bird that creates their nest underground by occupying tunnels dug by ferrets or prairie dogs. But they risk being wiped out if this plan goes through, sir.

Response: Please refer to Table 2-1, page 2-69, and Appendix 15, page A15-2, Reducing Impacts to Wildlife Habitat, in the RMP FEIS.

Comment: The sage brush and sage grouse are definitely in need of protection

Response: RFO is currently utilizing the BLM National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan, and when the local Sage-Grouse Working Group's plan becomes available, the strategies in this document will be implemented for grouse protection as well. Around known lek sites, the National Sage-Grouse Strategy uses ¼-mile NSO as the best available scientific information available to protect nesting grouse; currently the RFO follows these guidelines. RFO is currently proposing changing this from ¼-mile protection from the lek center, to ¼ mile around the lek perimeter, which will extend the protective NSO. In addition, once nesting and brood-rearing habitat has been identified, RFO will use the nesting and brood-rearing habitat boundaries, even if they are outside of the 2-mile lek timing buffer. Until such time as the strategies change, RFO and BLM are currently using these requirements as the best available scientific evidence to protect grouse. Using BMPs—such as centralizing facilities, directional drilling, and no operations between the hours of 6 p.m. and 9 a.m., RFO seeks to minimize impacts to grouse during the critical strutting and nesting season. As noted, RFO and WGFD are still in the process of identifying nesting habitat. In the future, these areas (even if outside the 2-mile lek buffer) will have seasonal timing stipulations placed on them. The potential exists that in the future, as development expands, BMPs (recommendations) may become COAs (required) for well development.

Comment: To limit development activities at certain times of the year and assure the public that this will solve any problems -- when this method (in the Upper Green River Valley and probably other areas of Wyoming as well) has already been shown to be unreliable, not to mention unenforceable -- is quite disingenuous; yet BLM's P.A. relies heavily on just such limitations.

Response: In addition to timing stipulations (no development from November 15 to April 30 in big game crucial winter range), RFO has established BMPs (Appendix 15 in the RFO Draft RMP) as additional

protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitat, where surface disturbing and disruptive activities are authorized.

Comment: Many problems have been caused across the United States by introduction of predatory game fishes into areas where they can prey on native fish species. This is a serious problem in altered systems such as the Colorado River basin, and elsewhere. On page ES-13, it states that BLM is cooperating with efforts to stock fish species. BLM should not encourage stocking in areas where sensitive native species (e.g., Colorado River cutthroat trout, bluehead and flannelmouth suckers) exist, nor upstream of areas supporting state or federally listed threatened or endangered species.

Response: Though the BLM does not have primary jurisdiction over the management of fish introductions, transplants, or stockings, BLM does actively cooperate in the management of sensitive fishes.

Comment: The BLM has failed to acknowledge that endangered Colorado River fish could occur in the RMPPA boundary area, when it is known that Colorado pikeminnow occasionally use the Little Snake River, and upstream movement into the vicinity of Baggs, Wyoming has been documented (Marsh et al. 1991). Other sensitive fishes that are protected by the states of Colorado and Wyoming also occur in that area, but there is not mention of potential effects of water management on other sensitive species, or on recovery efforts for the pallid sturgeon.

Response: BLM acknowledges that a single Colorado pikeminnow was collected from the Little Snake River in 1991. BLM would also add that subsequent attempts have failed to locate Colorado pikeminnow within the Little Snake River near Baggs, Wyoming. Please reference the Biological Assessment and the BO (Appendix 14) for the Rawlins RMP, for further clarification of management regarding threatened and endangered fishes.

Comment: The DEIS contains very little to suggest that measures would be taken to protect aquatic species, including sensitive amphibians and fishes, from CBM produced water. Impacts could range from toxic effects to aquatic biota from direct or subsurface discharge into streams, wetlands, and ponds, to indirect effects resulting from decreased aquatic vegetation. Even in cases where water quality standards are acceptable evaporation could result in accumulation of salt and other substances. Furthermore, sensitive species also could be affected if product water is used to create upstream ponds that are subsequently stocked with predatory, competitive or aggressive species.

Response: Surface discharge of produced waters will require a separate NEPA analysis. The remaining sensitive fish species, the hornyhead chub, occurs within the Laramie River in the Laramie Range. This population is unlikely to be affected by CBNG (CBM) discharges because of the area's low oil and gas potential (Map 3-5). Careful consideration of the toxicity of produced waters within the Platte and Great Divide Basins for activity-level NEPA analyses will allow for effects to sensitive amphibians to be mitigated.

Comment: The Wyoming Game and Fish Department reviewed the Best Management Practices (BMPs) that are included in the DEIS and found that the array of recommended wildlife BMPs is excellent. The problem however, is that there is not certainty as to when, where or if they will be applied. Although the word "intensively managed" is mentioned fifty-four times in the document and defined in the Glossary, as discussed previously, there are very few assurances as to how the BMPs will actually be applied.

Response: At the RMP level, it is appropriate to provide an array of BMPs to be used. The specifics of when and where they will be applied will be determined at the project-level EIS or Environmental Assessment.

Comment: The WMA is concerned with language in the proposed Rawlins RMP/DEIS designed to limit all surface and human activity in and around sage-grouse leks. Sage-grouse are important to the State of Wyoming and today's mining companies recognize their importance. All 4 proposed alternatives would restrict mining based on the movement of sage-grouse. This type of restriction may be acceptable for industries which can recover using horizontal or angle drilling technology. However, surface mining must occur directly over the deposit. As proposed, this restriction will unnecessarily impede surface mining of coal or uranium deposits near sage grouse leks. Instead, the Wyoming Mining Association believes that surface and human activity around sage-grouse leks should be mitigated on a case-by-case basis and not by a broad general rule. Transplanting sage grouse leks or recreating sage-brush habitat are two examples of success of previous successes of previous mitigation. Mining is vital to the success of the state of Wyoming and to the funding of state programs. Again, we emphasize that any type of production limitations should be based on sound science, site specific considerations, and should take into account mitigation opportunities. As proposed, the sage grouse lek restriction will severely inhibit recovery of coal or uranium reserves in the region.

Response: Coal mining was not considered part of the RFD in the Draft RMP, and hence was not discussed (page 2-9). A plan amendment would be required to analyze future coal mining activities. Uranium is a locatable mineral managed under 43 CFR 3800 regulations. Provisions of that regulation allow for mining with mitigation. Hence, a grouse lek on the site would not preclude access to the locatable mineral.

Comment: The draft plan in the Preferred Alternative is severely unbalanced. Areas that will be protected by this plan are nothing but a few pitiful remnants of the Great Divide region. Nationally important values would be condemned to destruction by this plan. Over all, 98 percent of the planning area is made available for oil and gas development. We urge that lands with high wildlife values and those with wilderness characteristics not be leased. Strict, unwavering stipulations should be used in other wildlife habitat areas to guide oil and gas activities to minimize their impact on wildlife values.

Response: The BLM manages a diversity of land uses and programs in coordination, both internally and externally, with other agencies, including the WGFD, the USFS, and the USFWS. The BLM works in coordination with the WGFD, as well as with other agencies, to minimize impacts to wildlife species, such as habitat fragmentation, by implementing BMPs. In addition, the agencies work together cooperatively in a diversity of habitat types to protect, maintain, and enhance wildlife habitat. The WSA areas include NSO for post-FLPMA natural gas and oil leases. Lands found to possess wilderness quality are within the existing WSAs. WSAs will not have future leasing, unless released from wilderness consideration by Congress.

Comment: I do not believe your agency should be treating White Tailed Prairie Dogs as if they were extremely sensitive or "at-risk" populations. This is simply not the case and it is difficult to understand why BLM would entertain a proposal to create Areas of Critical Environmental Concern for these animals. Where is the science? Despite numerous efforts to eradicate the species, populations of these animals are doing well. There is no need to needlessly raise the level of protection for Prairie Dog towns to a level that equals those that exist for more sensitive species such as wintering big game and sage-grouse! Please either show good science that would justify such an action, or remove this proposal in the final RMP.

Response: The white-tailed prairie dog is currently listed as a 6840 species and is on the BLM State Director's Sensitive Species List. The reason for this classification stems from the previous proposal to the Service to list the white-tailed prairie dog as a T&E species.

Comment: [Albany county Commission resolves to urge the Bureau of Land Management to incorporate the following management vision into its new long term management plan] Placing crucial winter ranges, sage grouse leks and nesting area, and other sensitive wildlife habitats under "No Surface Occupancy" stipulations, which allows leasing for oil and gas but requires that wells, roads and other facilities be moved outside the sensitive areas.

Response: At present, BLM is subject to the provisions of FLPMA. Consequently, once the areas are leased, an NSO stipulation on crucial winter ranges, sage-grouse nesting areas, and some of the other sensitive wildlife habitats would not be feasible. In addition to seasonal timing restrictions, the RFO can require measures, such as remote sensing of wells to reduce visits, directional drilling to reduce habitat loss, and potentially closing roads during critical time periods after development occurs. Under the previous Rawlins RMP, the majority of the field office has been leased. Once this occurs, the oil and gas industry has lease rights to obtain access to their leases. This limits the amounts and size of NSOs that the BLM can require. The RMP FEIS identifies areas in the field office that have not yet been leased, to determine if these areas would be placed off-limits to leasing (such as SD/MAs that are closed to leasing). Should any leases expire without activity, RFO may also reevaluate releasing these areas, if sensitive wildlife issues are present.

Comment: The DEIS for the Rawlins Resource Management Plan fails to mention the Comments on Sage-grouse Scoping Issues that I earlier submitted (14 February 2003). This suggests a general lack of responsiveness to professional review and detailed comments. There was no attempt to incorporate even minimal suggestions on identification and protection of winter habitats, brood habitats, or consideration of scientifically defensible buffers for NSO around active leks. The discussion of Monitoring in the DEIS is minimal and consideration of mitigating impacts on sage grouse is essentially non-existent. Thus, most of my comments on scoping issues are repeated in this document.

Response: We apologize for our delayed response and hope you will find answers to your questions here.

Comment: I am opposed to allowing the oil companies drill for oil during the winter and in critical habitat areas.

Response: The Proposed Plan does not allow for year-long surface disturbing activities to occur in big game crucial winter range and other seasonally sensitive habitats, such as calving grounds. In addition to timing stipulations (no development from November 15 to April 30 in big game crucial winter range), RFO has established BMPs (Appendix 15 in the RFO Draft RMP) as additional protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitat, where surface disturbing and disruptive activities are authorized.

Comment: Chapter 3 of the DEIS comments that "maintaining continuous tracts of suitable habitat and a suitable distance from disturbances are critical to the success of Greater sage-grouse" [emphasis added]. Who is going to be sure this is accomplished? At what point may there be a discovery of disturbances occurring within that "suitable distance" that have critically impaired the success of the Greater sage-grouse?

Response: RFO is currently utilizing the BLM National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan, and when the local Sage-Grouse Working Group's plan becomes

available, the strategies in this document will be implemented for grouse protection as well. Around known lek sites, the National Sage-Grouse Strategy uses ¼-mile NSO as the best available scientific information available to protect nesting grouse; currently the RFO follows these guidelines. RFO is currently proposing changing this from ¼-mile protection from the lek center, to ¼ mile around the lek perimeter, which will extend the protective NSO. In addition, once nesting and brood-rearing habitat has been identified, RFO will use the nesting and brood-rearing habitat boundaries, even if they are outside of the 2-mile lek timing buffer. Until such time as the strategies change, RFO and BLM are currently using these requirements as the best available scientific evidence to protect grouse. Using BMPs—such as: centralizing facilities, directional drilling, and no operations between the hours of 6 p.m. and 9 a.m.—RFO seeks to minimize impacts to grouse during the critical strutting and nesting season. As noted, RFO and WGFD are still in the process of identifying nesting habitat. In the future, these areas (even if outside the 2-mile lek buffer) will have seasonal timing stipulations placed on them. The potential exists that in the future, as development expands, BMPs (recommendations) may become COAs (required) for well development.

Comment: All crucial big game winter ranges should be placed under NSO protections.

Response: In addition to timing stipulations (no development from November 15 to April 30 in big game crucial winter range), RFO has established BMPs (Appendix 15 in the RFO Draft RMP) as additional protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitat, where surface disturbing and disruptive activities are authorized.

Comment: Give extra protection to the most important wildlife habitats, such as the Powder Rim, the entire Ferris Dunes, the Chain Lakes, mountain plover nesting areas and Areas of Critical Environmental Concern.

Response: The BLM considers sensitive areas, such as Chain Lakes ACECs, and sensitive wildlife habitat, during environmental review of proposed activities and projects that are identified within the RMPPA. Additional protection measures are implemented, if warranted, to these important wildlife habitat..

Comment: I am worried that many wildlife stipulations are based upon inaccurate scientific data and need to be revised such as with sage grouse habitat.

Response: RFO updates its seasonal stipulations in coordination with WGFD; this coordination involves monitoring of the affected species (such as sage-grouse) and its habitat, to determine when and if the species actually uses the habitat in question. These time periods of wildlife use (from BLM and WGFD field biologist data) are then used to formulate the wildlife timing stipulations.

Comment: I understand that the overlapping crucial winter range controlled surface stipulation was to be dropped in the plan. I believe, after visiting with Wyoming Game and Fish Department officials, that this overlapping crucial winter range controlled surface stipulation should be included in the final plan and used vigorously. In addition, Wyoming Game and Fish officials should be consulted when mitigation plans are prepared prior to drilling.

Response: By focusing on overlapping crucial winter ranges, vital habitat for any of the big game species could be deemphasized. Identifying mitigations that act to control development within all crucial winter ranges will provide equal consideration, regardless of the number of big game species using a wintering area.

Comment: There is a significant lack of needed data with respect to impacts on native wildlife. The mitigation measures relied upon in the document are too vague to meet the requirements of NEPA and inadequate to prevent unacceptable impacts to wildlife resources.

Response: The discussion of impacts to wildlife from other program management actions in Chapter 4, Environmental Consequences, has been updated in the RMP FEIS.

Comment: DEIS. Chapter 2, Wildlife and Fisheries Table, Page 76, first Column, First Row. The DEIS states that, under the Preferred Alternative, “above ground facilities within 0.25 miles of prairie dog towns would not be equipped with anti-raptor perching devices.” The Service believes that including anti-raptor perching devices on these structures would improve the habitat conditions for the black-tailed and white-tailed prairie dogs within the RMPPA and recommends this be included in the Preferred Alternative.

Response: After analysis of this proposal, it was determined that equipping every facility within ¼ mile of a prairie dog town was not feasible. Because of the variety of facilities that may be constructed and the inherent difficulty with outfitting antiperching devices to each design, this action was not carried into the Proposed Plan. The BLM still has the discretion to require antiperching devices on facilities within the RMPPA on a site-specific basis. Additionally, placement of power poles within prairie dog towns would be avoided. In the event that power poles are required to be placed within these towns, raptor antiperching devices would be required.

Comment: DEIS. Chapter 2, Wildlife and Fisheries Table, Page 76, First Column, Second Row. The DEIS states that, under the Preferred Alternative, “surface disturbance activities would avoid black tailed prairie dog towns.” However, in the most recent draft of the Statewide Programmatic Black-tailed Prairie Dog Biological Evaluation (BLM 2004), the Bureau takes a more conservative approach by stating that “no further oil and gas exploration and development shall be allowed in occupied prairie dog colonies.” The Services suggests that the Bureau review the DEIS and the Draft Statewide Programmatic Black-tailed Prairie Dog Biological Evaluation (BLM 2004) and provide consistent direction in planning and conservation commitments regarding surface disturbance and oil and gas related activities in black-tailed prairie dog colonies.

Response: The black-tailed prairie dog is no longer being considered for listing under the ESA, but it is currently recognized as a BLM Wyoming sensitive species. The management actions for black-tailed prairie dog are included in Table 2-1, Detailed Comparison of Alternatives under Wildlife and Fisheries, Species listed on the BLM Wyoming State Director’s Sensitive Species List.

Comment: On page 3-89, it is not clear why Colorado River cutthroat trout: “...will soon expand into much of their former habitat.” More information is needed to explain this observation. Also, on the same page, which 3 nonnative warm water fishers are being discussed, why are they expected to benefit, and from what? What management actions have been taken or are contemplated for the future?

Response: Actions specific to the Upper Muddy Creek Watershed/Grizzly SD/MA are presented in Table 2-1.

Comment: The Mountain Plover is a declining species that has important nesting populations in the Rawlins planning area. We urge BLM to steer oil and gas activities around the known plover nesting areas. The preferred alternative contemplates oil and gas leasing in these areas with the “Mountain Plover Stipulations” described in Appendix 16, using NSO stipulations for plover “concentration areas” (for which no definition is given) and various seasonal restrictions. We question whether these are adequate to

protect the nesting plover population. We urge BLM to listen to the recommendations of Wyoming bird and wildlife groups for ways to strengthen protection of the Mountain Plover population.

Response: Appendix 16, Mountain Plover Management Guidelines: Occupied Habitat Protection Measures, has been revised to delete the use of the term “concentration areas.” Mountain plover–occupied habitat is defined in the Glossary. Appendix 15, Best Management Practices for Reducing Surface Disturbance and Disruptive Activities, under the Reducing Impacts to Wildlife Habitat section, includes additional BMPs that could be incorporated into authorizations for surface disturbing activities within mountain plover habitat. Chapter 4, Wildlife Management Impact Analysis, supports the adequacy of the use of BMPs in providing for the protection of mountain plover.

Comment: [You, the Rawlins BLM, should adopt the Western Heritage Alternative as your final RMP, with the following amendment] All big game crucial winter ranges and birthing grounds should be managed under No Surface Occupancy stipulations as far as future oil and gas leasing is concerned.

Response: At present, BLM is subject to the provisions of FLPMA. Consequently, once the areas are leased, an NSO stipulation on crucial winter ranges would not be feasible. In addition to seasonal timing restrictions, the RFO can require measures, such as remote sensing of wells to reduce visits, directional drilling to reduce habitat loss, and potentially closing roads during critical time periods after development occurs.

Comment: On page 3-137, section 3.19.1.8 is provided for “Fish Habitat Management.” However, no management is discussed, only an identification of habitats and fish species is provided. How will the BLM manage the fish habitat: it is impossible to assess potential management without sufficient baseline information about fish communities, and how the quality and quantity of water may change in each project area. This deficiency merits additional treatment.

Response: Chapter 3 discusses the affected environment. This is a disclosure of the resources known to exist within the RMPPA. Management actions are presented under the different alternatives within Chapter 2. The impacts of each alternative, as they relate to water quantity or quality, are presented under Chapter 4, Environmental Consequences: Water Quality, Watershed and Soils Management. Additional impacts of each alternative on fish habitat can be found within Chapter 4, Environmental Consequences: Fish Habitat Management.

Comment: We urge BLM to attach strict, un-waivable No Surface Occupancy stipulations on any leases issued for lands with wilderness values or sensitive wildlife habitat values. All mineral operations should be required to use best available technology and best management practices. Motorized vehicles should be restricted to travel routes designated for their use, and only those absolutely necessary for the purpose.

Response: Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. Restrictions to travel routes and their designated use are analyzed at the site-specific level to protect resource values. The BLM has coordinated with the WGFD to identify appropriate protection measures applicable to specific species during critical time periods that will protect these species. The BLM uses BMPs for all proposed projects to protect wildlife species at the site-specific level. Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or USFWS, depending on species, are completed.

Comment: For most wildlife values, the preferred alternative unwisely relies on weak stipulations setting seasonal restrictions on drilling activities. These do not prevent alteration of surface character, and they can be waived or modified through procedures spelled out in Appendix 9 (“Exception and Waiver

Criteria”). This means that drilling operators will bring pressure against BLM field officials to weaken wildlife protections whenever they get in the way of drilling.

Response: The BLM has coordinated with the WGFD to identify appropriate protection measures applicable to specific species during critical time periods that will protect these species. Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or FWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present, and/or conditions do not warrant.

Comment: BLM's final plan should embody the balanced approach proposed by Wyoming citizens' groups in the “Western Heritage Plan,” which reflects both love for the land and solid scientific expertise. Their plan points the way to reasonable development of mineral resources, without sacrificing irreplaceable natural values.

Response: At present, BLM is subject to the provisions of FLPMA. The BLM manages a diversity of land uses and programs in coordination, both internally and externally, with other agencies, including the WGFD, the USFS, and the USFWS. The BLM works in coordination with the WGFD, as well as with other agencies, to minimize impacts to wildlife species, such as habitat fragmentation, by implementing BMPs. In addition, the agencies work together cooperatively in a diversity of habitat types to protect, maintain, and enhance wildlife habitat. The WSA areas include NSOs for post-FLPMA natural gas and oil leases. In addition to seasonal timing restrictions, the RFO can require measures, such as remote sensing of wells to reduce visits, directional drilling to reduce habitat loss, and potentially closing roads during critical time periods after development occurs.

Comment: We also request that BLM consider and enunciate in the EIS a policy relative to habitat “edge” an issue of great biological and ecological significance. The EIS fails to do so.

Response: Edge habitat will be identified at the development of SD/MAs and/or ACECs, as well as during the analysis of habitat types and conditions at the individual project level

Comment: It is crucial the EIS identify all existing migration and other movement corridors, which it fails to do. The RMP must ensure that management actions authorized by the RMP protect the ecological integrity of these corridors and linkages. Big game migration routes have been widely documented, but riparian areas, mountain ranges and ridges, and other areas serve as important linkages among habitats (and even eco-regions) that must be preserved: The EIS provides no insight on these biologically critical resources.

Response: The BLM and WGFD are assessing migration corridors within the RMPPA and will implement BMPs to provide protection in these areas. The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species from all activities authorized on federal lands, including activities located within pronghorn seasonal ranges and migration corridors. At the project-specific level, BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Seasonal stipulations can be used to reduce impacts from both surface disturbing activities and also disruptive activities. The BLM considers WGFD guidelines and recommendations (Minimum Programmatic Standards Recommended by the WGFD to Sustain Important Wildlife Habitats Affected by Oil and Gas Development) to reduce impacts where needed, which is also applicable to individual herd units.

Comment: Consultation under Section 7 of the ESA should be completed and any biological opinion(s) issued by the Fish and Wildlife Service adopted by BLM and made a binding part of the RMP (and

activities occurring under it) prior to approval of the RMP. The RMP should establish criteria to ensure that the regulatory requirements for reinitiating consultation are complied with at the earliest possible time so as to ensure species are not jeopardized. See 50 C.F.R. § 402.16 (establishing reinitiation criteria). Moreover, the prohibition on foreclosing reasonable and prudent alternatives, as provided for in Section 7(d) of the ESA, must be enforced by the RMP. These recommendations are consistent with BLM's Land Use Planning Handbook and its Special Status Species Manual. See BLM Handbook H-1601-1 at Appendix C Page 5-7; *Id.* at Appendix G; BLM Manual MS-6840.2.E.

Response: The BLM prepared a Biological Assessment in coordination with the USFWS. As part of the formal consultation process, this document is prepared to ensure that BLM actions conserve listed species and their Critical habitat. Reasonable and Prudent Measures and Terms and Conditions are identified in the BO (Appendix 14) and are included in the BO appendices on conservation measures and BMPs.

Comment: [I would like to express my concern toward] big game winter ranges and hunting areas. I could care less about the prairie dog towns or the dry lands that aren't inhabited by much of anything. There are some areas that need protection though. Maybe this could be done by reducing roads in certain areas or limiting public access.

Response: RFO has established BMPs (Appendix 15 in the RFO Draft RMP) as additional protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitat where surface disturbing and disruptive activities are authorized. Reducing roads or limiting public access are additional protection measures that will be implemented to reduce disturbance to wildlife, including big game species.

Comment: We urge BLM to use “no surface occupancy” stipulations to protect sensitive wildlife habitat such as prairie dog colonies, mountain plover nesting areas, and a zone of 3-mile radius around sage grouse leks, 1 mile radius around raptor nests. Key wildlife areas such as the Powder Rim, the entire Ferris Dunes, and the Chain Lakes should not be subjected to oil drilling.

Response: BLM and WGFD (as partners) have identified measures sufficient to protect wildlife species and their habitat where surface disturbing and disruptive activities are authorized.

Comment: It may be impossible to fully protect biological diversity (and to effectively manage many other resources) without considering other landowners and landholdings within the RMP area. Therefore, we request that the EIS consider other landholdings relative to BLM's efforts to protect biological diversity. The RMP should establish a program or at least guidance for how BLM will attempt to work with other landowners relative to biodiversity protection efforts, and make provision for accessing funding needed to implement those efforts.

Response: The BLM recognizes the issue. The development of guidance or policy related to nonfederal landowners is beyond the scope of the RMP. The RMP FEIS clearly identifies the coordinated efforts with other federal, state, and local governments, as well as with private landowners, in the management of wildlife and wildlife habitat.

Comment: I would like to ask that you take the stipulations out of the plan that require needless wildlife mitigation procedures and that classify too many activities as disruptive, giving the BLM enough leeway to restrict any operations from being conducted at all in the RMPPA

Response: The BLM is a multiple-use agency and applies appropriate mitigation to surface disturbing and disruptive activities, in coordination with other agencies, to protect a diversity of resources.

Comment: In the context of oil and gas leasing, “incremental step” consultation is of particular concern, yet the EIS fails to address this issue. See 50 C.F.R. § 402.14(k); Endangered Species Consultation Handbook at 5-7.17 In our view, the decision in *Conner v. Burford*, 848 F.2d 1441 (9th Cir. 1988) should control all consultation in the context of oil and gas development. To that end, BLM must assist the Fish and Wildlife Service in conducting the most fully informed consultation possible, including assisting it to develop “views on the entire action,” which in this case is over 8000 oil and gas wells. See 50 C.F.R. § 402.14(k). BLM must fulfill its “continuing obligation to obtain sufficient data upon which to base the final biological opinion on the entire action.” *Id.* (emphasis added). BLM must assist the Fish and Wildlife Service in developing a fully informed understanding of the effects of the entire action, even if incremental step consultation is used. *Id.* The RMP should confirm and reinforce these duties and requirements. Section 7(a) (1) of the ESA requires this. Yet the EIS at this time is not clear that these requirements will be met.

Response: The BLM coordinates closely with the USFWS to ensure the protection of endangered, threatened, proposed, and candidate species. The BLM implements reasonable and prudent measures when required to ensure compliance with the ESA.

Comment: Page A16-1: 4th bullet: “Speed limit of 35 mph on other local roads.” It is unclear how a speed limit will serve to conserve the Mountain Plover; BLM needs to clarify this requirement and provide scientific justification.

Response: The measures identified in Appendix 16 are discussed in coordination with project proponents. This provides direction and an opportunity to implement feasible measures to reduce impacts to mountain plover.

Comment: The BLM should consider the principles of island biogeography so as to ensure that fragmentation does not degrade existing wildlife habitats. That is, it must insure that small islands of habitat are not created by management activities such as logging, chaining, or oil and gas development. The EIS should ensure both that the total areas of important habitats are maintained and that these habitats are not further fragmented.

Response: These potential issues are addressed in the document; please refer to Appendices 13, 14, and 15.

Comment: The BLM plan opens Adobe Town, Wild Cow Creek and the Pedro Mountains to industrial development which will degrade or destroy their wilderness values and important wildlife habitat areas.

Response: The Adobe Town WSA is not open to new oil and natural gas leasing. The Wild Cow and Pedro Mountains areas do not meet BLM wilderness characteristics criteria or ACEC relevance and importance criteria.

Comment: Page 2-76: PacifiCorp objects to the requirements to install anti-perch devices on power poles placed inside prairie dog towns or the exclusion of power poles within prairie dog towns. Anti-perch devices do not prevent raptors from perching on power poles in areas with a high prey base, such as prairie dog towns. These requirements should not be included in the final EIS or final RMP. PacifiCorp will work with the BLM to find an adequate solution on a case-by-case basis.

Response: The BLM uses the protection measures identified in Table 2-10 to protect raptor species, specifically during sensitive time periods, such as nesting and brood rearing. Any power line construction will follow the recommendations of the Avian Powerline Interaction Committee (APLIC) to avoid collisions and/or electrocution of raptors.

Comment: BLM must ensure its analyses of impacts to wildlife consider indirect, connected, related, long-term, and cumulative impacts in as quantitative, and scientifically supported, a manner as possible. BLM must also ensure that it fully complies with BLM Manual MS-6840 (Special Status Species Management).

Response: Thank you for your comment. The BLM is aware of its own responsibilities under NEPA and the various other policies. The FEIS will consider these issues.

Comment: Another key issue worth noting is the loss of sage grouse under this proposal. Sage grouse are already teetering on the edge of becoming listed under the ESA. The current BLM proposal for the Great Divide, does not address how sage grouse will be impacted, largely because adequate studies or effects of oil and gas development on sage grouse are non-existent. Any further decline in sage grouse could be the catalyst that sends them into threatened or endangered status under the Endangered Species Act.

Response: RFO does not allow activity within the ¼-mile lek buffer. The ¼-mile buffer is consistent with BLM's National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan, and when the Local Sage Grouse Working Group's plan becomes available, the strategies in this document will be implemented for grouse protection as well. Around known lek sites, the National Sage-Grouse strategy uses ¼-mile NSO as the best available scientific information available to protect nesting grouse; currently the RFO follows these guidelines. RFO is currently proposing changing this from ¼-mile protection from the lek center, to ¼-mile around the lek perimeter, which will extend the protective NSO. In addition, once nesting and brood-rearing habitat has been identified, RFO will use the nesting and brood-rearing habitat boundaries even if they are outside of the 2-mile lek timing buffer. Until such time as the strategies change, RFO and BLM are currently using these requirements as the best available scientific evidence to protect grouse. Using BMPs—such as centralizing facilities, directional drilling, and no operations between the hours of 6 p.m. to 9 a.m.—RFO seeks to minimize impacts to grouse during the critical strutting and nesting season. RFO puts power lines in existing rights-of way (with raptor antiperching devices in most cases, particularly around prairie dog towns), or buries the power lines. Power lines are not permitted within ¼ mile of lek areas. As noted, RFO and WGFD are still in the process of identifying nesting habitat. In the future, these areas (even if outside the 2-mile lek buffer) will have seasonal timing stipulations placed on them. The potential exists that in the future, as development expands, BMPs (recommendations) may become COAs (required) for well development. The ¼-mile lek NSO is in compliance with the National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan. Until such time as the strategies change, RFO and BLM are currently using these requirements as the best available scientific evidence to protect grouse. Using BMPs—such as centralizing facilities, directional drilling, and no operations between the hours of 6 p.m. to 9 a.m.—RFO seeks to minimize impacts to grouse during the critical strutting and nesting season. As noted, RFO and WGFD are still in the process of identifying nesting habitat. In the future, these areas (even if outside the 2-mile lek buffer) will have seasonal timing stipulations placed on them. The potential exists that in the future, as development expands, BMPs (recommendations) may become COAs (required) for well development. WGFD manages the populations of the sage-grouse; the USFWS noted that listing wasn't warranted, because of implementation of the National Sage-Grouse Strategy and statewide conservation plans. BLM relies on this assessment of future management prescriptions to avoid negative impacts to the sage-grouse population as a whole.

Comment: Currently there are 13 lek definitions provided in the RMP glossary. The confounding definitions and the way they are used in the document provide only confusion to the reader and the possible user of the public lands. This level of obsession with lek classification provides no certainty to the project proponent as to what is required for what lek. It is obvious the intent of this lek classification exercise is to provide protection for all leks, regardless of actual use by sage-grouse. This is overly conservative and restrictive. We suggest using Connolly et al (2000) definitions of lek activity status.

Response: Greater sage-grouse lek definitions are identified in the Glossary in the RMP FEIS and are used by the BLM and WGFD wildlife biologists when identifying and monitoring these habitat types.

Comment: The roads that need to be installed are perhaps the most damaging item that will be caused for big-game.

Response: The BLM is aware of the effects of habitat fragmentation on big game and is pursuing opportunities to decrease existing fragmentation and minimize future fragmentation from road development. Section 4.14, Transportation and Access; Section 4.19, Wildlife and Fish; and Section 4.20, Cumulative Impacts, all contain an analysis of potential and known impacts to wildlife from road development and uses.

Comment: The current BLM proposal of allowing 9000 gas wells and 2700 miles of roads across the great divide does not give EQUAL CONSIDERATION to the needs of game animals such as mule deer, elk, pronghorn and sage grouse or non-game species. The impacts of gas development on all these species is not well documented and many professionals from a wide range of federal, state and private agencies all openly admit that just how detrimental these impacts are to these animals is largely unknown. What is known is that they will be impacted negatively.

Response: RFO has established BMPs (Appendix 15 in the RFO Draft RMP) as additional protective measures for big game crucial winter range. BLM and Wyoming Game and Fish (as partners) have identified these measures as sufficient to protect greater sage-grouse, big game species, nongame species, and their habitats where surface disturbing and disruptive activities are authorized.

Comment: Page A16-1: Comment The Mountain Plover is not a listed species, it was determined by the FWS that the plover did not warrant ESA protection. BLM must provide scientific justification for the ESA-level protections being implemented as advocated in the DEIS. Further, scientific documentation must be provided to justify changing the level of protection provided in the GDRMP.

Response: Mountain plover is currently listed as a 6840 species and is on the BLM state director's species list. The reason for this classification stems from the previous proposal to the Service to list mountain plover as a T&E species. Part of the justification to not list the mountain plover included current protection measures, such as those listed on page A16-1.

Comment: Pages 2-29 through 2-78: Timing and spatial stipulations identified for sensitive biological resources should be regarded as guidelines only and not as definitive dates and distances. Seasonal restrictions should be altered to take into account the nature and scope of the project or activity, species-specific needs to provide protection during anticipated effect, weather, noise, topography, etc. A one-size fits all approach puts an undo burden on the applicant by creating an avoidance area for a species that may not be in the area for the entire time period, i.e. raptor fledglings have left the nest prior to the end of the no disturbance window. Although PacifiCorp understands the need for developing guidelines to protect sensitive biological receptors, the approach as laid out in the draft EIS is too restrictive. Site and project specific information must be taken into consideration. In the final EIS and RMP, BLM should present the conditions for controlling surface disturbing and disruptive activities as guidelines, not as mandates.

Response: The BLM has coordinated with the WGFD to identify appropriate protection measures applicable to specific species during critical time periods that will protect these species. Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or FWS, depending on

species, are completed. Exceptions are only granted if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant.

Comment: The EIS must carefully evaluate problems resulting from habitat fragmentation and the need for maintaining the connectivity or linkage of habitats.

Response: These potential issues are addressed in the document please refer to Appendix 13, 14, & 15.

Comment: The EIS adopts requirements for provisions for the protection and conservation of listed species, however, it fails to adopt measurable objectives for upward population trends for all listed species present or likely to be present in the RFO area. This should be corrected in the final EIS. For example, the EIS should comply with and seek to implement any recovery plans and/or biological opinions applicable to listed species in the planning area.

Response: The BLM complies with the ESA and implements conservation measures identified in the Biological Assessment and BO (Appendix 14) to ensure protection of species and habitat.

Comment: Sage-Grouse - All references to sage-grouse must be consistent with the Wyoming Statewide Sage-Grouse Conservation Plan. Currently numerous definitions in the draft RMP are significantly different. The consistent use and application of sage-grouse terminology will facilitate sage-grouse conservation.

Response: Consistent definitions will be incorporated.

Comment: There is one area that I suspect has gone unremarked on, and that is the effect of this type of development on wildlife resulting from the illegal killing of animals in the areas under consideration. Based on my work as the Department's Law Enforcement Specialist were, and are, that with an increase in human activity associated with mineral development will come an increase in the illegal killing of wildlife in the surrounding area, and that this illegal killing will be of a magnitude which can adversely effect the wildlife populations in question. Another factor to consider when looking at the potential effects of an increase in illegal hunting is the ability of the appropriate law enforcement agency to respond to the problem. It is my belief that at this time the enforcement arm of the Wyoming Game and Fish Department is even less prepared to deal with the increase in enforcement problems that increased mineral development will bring than we were "back then".

Response: The RMP does not address illegal actions that are outside the scope of the process. Game violations are the responsibility of the WGFD.

Comment: It is critical to note that biological diversity encompasses far more than just species diversity. Genetic diversity and the diversity of biological communities are also components of biological diversity. Consequently, the RMP should make provisions for maintaining these elements of diversity, although our reservations regarding increasing edge should be borne in mind relative to modifying community level diversity.

Response: This issue is taken into consideration during the planning of proposed projects and encompassed by the RMP. Biological diversity is discussed in Section 3.19.1, General Wildlife; Section 3.19.2, Threatened, Endangered, Candidate, and Proposed Wildlife Species; and Section 3.19.3, BLM Wyoming State Director's Sensitive Species List Habitat Management.

Comment: Crucial Winter Elk Habitat for T16N and R78W should extend further west on your map 2-56. Elk come into section 25, 26, and 27 in the above described township. The terrain in these sections

have a southerly exposure and are mostly blown clear of snow. With the National Forest Boundary along the north edge of these sections easy access in afforded the elk that migrate to these sections for winter forage.

Response: The WGFD maintains data regarding the distribution of big game crucial winter ranges, which are subsequently provided to the BLM for analysis of potential impacts and land management planning. Map 2-56, Elk Habitat and Parturition Areas, has been updated in the RMP FEIS in coordination with the WGFD.

Comment: BLM should also use No Surface Occupancy stipulations for crucial ungulate winter ranges, essential migration routes for pronghorn and other ungulates, prairie dog colonies, and riparian habitat areas, as recommended by Wyoming wildlife groups.

Response: At present, BLM is subject to the provisions of FLPMA. Consequently, once the areas are leased, a NSO stipulation on crucial winter ranges would not be feasible. In addition to seasonal timing restrictions, the RFO can require measures, such as remote sensing of wells to reduce visits, directional drilling to reduce habitat loss, and potentially closing roads during critical time periods after development occurs. The RFO when feasible requires project avoidance of prairie dog colonies and riparian habitat.

Comment: I am worried that many wildlife stipulations are based upon inaccurate scientific data and need to be revised such as with sage grouse habitat

Response: RFO updates its seasonal stipulations in coordination with WGFD; this coordination involves monitoring of the affected species (such as sage-grouse) and its habitat, to determine when and if the species actually uses the habitat in question. These time periods of wildlife use (from BLM and WGFD field biologist data) are then used to formulate the wildlife timing stipulations.

Comment: BLM needs to assess the impacts of overlapping timing limitation stipulations on the oil and gas industry, increased impacts to resources and socio-economic impacts.

Response: The BLM applies mitigation measures that are founded on the best scientific information available, in coordination with other agencies, to protect a diversity of resources. Section 4.8, Minerals, describes impacts of the timing restrictions on development from resource protections, such as those implemented to protect wildlife species.

Comment: Many wildlife stipulations or management objectives are based upon inaccurate scientific data or assumptions and must be revised; i.e., sage grouse, mountain plover and white tailed prairie dogs.

Response: The BLM applies mitigation measures that are founded on the best scientific information available, in coordination with other agencies, to protect a diversity of resources.

Comment: The sage grouse too often receives special protective measures, particularly in the context of oil and gas development activities. Typical stipulations limit oil and gas development activities when sage grouse are utilizing known leks. BLM should reexamine whether these types of stipulations are sufficient, standing alone, to protect the viability of sage grouse populations. It is axiomatic that wildlife require all environmental features (food, cover, shelter) necessary to support all life-stages. Focusing exclusively on one element of a species' ecological needs not only might fail to protect the species, it might also blind BLM to other critical factors affecting the species. For example, it is well known that sage grouse chicks need access to wet meadow areas.

Response: Incorporation of the full complement of life history requirements into conservation planning efforts for the sage-grouse should facilitate a more holistic approach. Local conservation planning efforts are currently underway. The adoption of recommendations and conservation actions from these planning efforts will not be precluded by this RMP.

Comment: We urge BLM to steer oil and gas activities around the known plover nesting areas. The preferred alternative contemplates oil and gas leasing in these areas with the “Mountain Plover Stipulations” described in Appendix 16, using NSO stipulations for plover “concentration areas” (for which no definition is given) and various seasonal restrictions. We question whether these are adequate to protect the nesting plover population. We urge BLM to listen to the recommendations of Wyoming bird and wildlife groups for ways to strengthen protection of the Mountain Plover population.

Response: Appendix 16, Mountain Plover Management Guidelines: Occupied Habitat Protection Measures, has been revised to delete the use of the term concentration areas and has been replaced with the term “occupied habitat.” Mountain plover–occupied habitat is defined in the Glossary. Appendix 15, Best Management Practices for Reducing Surface Disturbance and Disruptive Activities, has a section, Reducing Impacts to Wildlife Habitat, which includes additional BMPs that will be incorporated into authorizations for surface disturbing activities within mountain plover habitat. Chapter 4, Wildlife Management Impact Analysis, supports the adequacy of the use of BMPs in providing for the protection of mountain plover.

Comment: With this in mind, we ask that the EIS provide for the following steps to ensure that wildlife diversity is protected. As requested above, all riparian areas should be designated ACECs and given special management. It is widely recognized that (1) riparian areas in the west are crucial centers of biological diversity and (2) most BLM riparian areas are in unhealthy condition. Consequently, special management provisions for these areas must be made in the RMP. Riparian area management is discussed in more detail below. The RMP must also ensure that other special habitats are protected and enhanced. As noted, all wildlife requires adequate habitat for feeding, reproducing, and hiding or resting (sheltering), and the plan must ensure that such is provided for all species at all critical life stages. Wintering areas, colonial or other concentrated avian nesting areas, spawning beds, and traditional birthing areas are examples of the special habitats the RMP should provide for and protect. The EIS does not seek to identify or consider such special habitats.

Response: The final decision in regards to the RMP is the responsibility of the Rawlins Field Office Manager. The BLM is aware of the relative importance of riparian areas for wildlife. The BLM is required by the FLPMA to adhere to Standards and Guidelines. Please refer to Appendix 8, Standard 2.

Comment: For most wildlife values, the preferred alternative unwisely relies on weak stipulations setting seasonal restrictions on drilling activities. These do not prevent alteration of surface character, and they can be waived or modified through procedures spelled out in Appendix 9 (“Exception and Waiver Criteria”).

Response: The BLM manages a diversity of land uses and programs in coordination, both internally and externally, with other agencies, including the WGFD, the USFS, and the USFWS. The BLM works in coordination with the WGFD, as well as with other agencies, to minimize impacts to wildlife species, such as habitat fragmentation, by implementing BMPs. In addition, the agencies work together cooperatively in a diversity of habitat types to protect, maintain, and enhance wildlife habitat. Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or FWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted, if species are present and/or conditions do not warrant.

Comment: Additionally, BLM must ensure compliance with BLM Manual MS-6840.22. Provisions here require BLM to take a broad and proactive approach to special status species management, and in the context of planning require that, “Land use plans shall be sufficiently detailed to identify and resolve significant land use conflicts with special status species without deferring conflict resolution to implementation-level planning.” The EIS fails to meet these requirements.

Response: The BLM provides protection for sensitive species under BLM Manual 6840. This is discussed in the RMP FEIS, Section 3.19.3, BLM Wyoming State Director’s Sensitive Species List Habitat Management.

Comment: In addition to protecting special habitats, the plan must provide for protecting certain species to ensure that biological diversity is protected. Certainly species listed pursuant to the ESA and BLM and/or State sensitive species must receive species-specific attention, but other species should receive special emphasis as well. The plan should identify and provide for the protection of “keystone” species, which can be literally key to preventing undesirable, cascading ecological effects, such as widespread extinctions. BLM should ensure that the RMP makes special provision for protecting keystone resources. The EIS as currently written ignores these components of protecting biological diversity.

Response: The BLM provides protection for sensitive species under BLM Manual 6840. This is discussed in the RMP FEIS, Section 3.19.3, BLM Wyoming State Director’s Sensitive Species List Habitat Management. Additionally, the BLM coordinates closely with the USFWS to ensure the protection of endangered, threatened, proposed, and candidate species. The BLM implements reasonable and prudent measures when required, to ensure compliance with the ESA.

Comment: Page A16-1: 5th bullet: “Access roads will be realigned to avoid identified concentration areas.” It is highly unlikely that BLM can justify requiring an operator to realign an existing road. This statement must only apply to new access roads. Moreover, as with bullet point #2, moving existing facilities and access roads will probably cause greater rather than fewer impacts with Mountain Plover because they make use of disturbed areas and will likely move the following year to the area disturbed by the construction of the relocated facility or road.

Response: The measures identified in Appendix 16 are discussed in coordination with project proponents. This provides direction and an opportunity to implement feasible measures to reduce impacts to mountain plover. The BLM may require a road to be relocated for a specific reason for the protection of the species; these measures allow such an action to occur if such a situation should occur.

Comment: The draft RMP proposes to protect all sage grouse habitat regardless of the distance from a lek. This is simply unreasonable, because the BLM has not proven that the current two mile restriction is inadequate.

Response: Current research and monitoring have shown that often, sage-grouse nest further from a lek than the 2-mile buffer (Holloran 2005). Thus, the 2-mile buffer protects only a proportion of nesting sage-grouse. Therefore, BLM will modify the timing restriction to include all nesting habitat when identified.

Comment: The EIS should examine whether habitat that could potentially be occupied by raptors, such as previously utilized nests, should receive protection so as to ensure the continued viability of raptors in the RMP area. It should consider all biological needs of raptors and develop suitable protections for all significant life-stages of the various raptors, all of which should be included in the RMP. Additionally, the EIS should address compliance with the Bald Eagle Protection Act and Migratory Bird Treaty Act and the RMP should specify the means by which BLM will ensure compliance with these laws as well as pursue (or facilitate) enforcement of them.

Response: Current timing stipulations would apply to previously used nests (see the definition of “active nest site” in the Glossary). Additionally, permanent structures requiring repeated human presence would not be allowed within 875 feet (1,200 feet for ferruginous hawks) of active raptor nests. See Table 2-1 under the Wildlife and Fisheries section, subsection Endangered, Threatened, Proposed, and Candidate Species, for information pertaining to bald eagle protections. Also, further discussion related to the Bald Eagle Protection Act and Migratory Bird Treaty Act can be found within the Biological Assessment located on the Rawlins RMP website. The BO is located in Appendix 14 in the RMP FEIS.

Comment: BLM must ensure full compliance with BLM Manual MS-6840.06.E (Special Status Species Management). BLM Manual MS-6840.06.E requires that “protection provided by the policy for candidate species shall be used as the minimum level of protection for BLM sensitive species”- BLM Manual MS-6840.06.C & .06.E. See BLM Manual MS-6840.06.C (1&3) (discussing BLM's responsibility to confer with U.S. Fish & Wildlife Service regarding individual species' needs). BLM Manual MS-6840.06.C.2 imposes a series of additional substantive obligations on the BLM regarding candidate [and therefore sensitive] species management:

Response: The BLM provides protection for sensitive species under BLM Manual 6840. This is discussed in the RMP FEIS, Section 3.19.3, BLM Wyoming State Director's Sensitive Species List Habitat Management.

Comment: The BLM should not be giving authority to the Wyoming Game and Fish Department to dole out exceptions and waivers to the natural resource industries. First of all, this would be ambiguous because the BLM would either choose to micromanage the game and fish department, or the game and fish department would be given too much leeway over a task it has no business carrying out. Secondly, the BLM is the federal agency in charge of our public lands in southern Wyoming. Delegating federal authority to a state agency is simply wrong. Please do not delegate exception and waiver authority to the Wyoming Game and fish Department under Appendix 9.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or FWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests.

Comment: The State fish and game agency collects and analyzes a wide range of information related to game species. The BLM should fully utilize this information as it develops the final EIS. In particular, this information should be utilized to help determine stipulations, conditions of approval, and other protections for game species (and other species) that apply to fluid mineral and other mineral development activities. Relative to big game, we urge the BLM to protect more than “critical” big game winter ranges. This approach is biologically and ecologically unsupportable and results in unnecessarily and unduly restricted protections. We therefore request that protective measures (stipulations, etc.) be considered not just for “critical” winter ranges, but also for all winter range areas, particularly relative to oil and gas extraction activities. To the extent BLM excludes “general” winter range areas from the application of protective measures, it should provide a biologically defensible rationale for such a decision. It has not done so in the EIS.

Response: The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species from all activities authorized on federal lands, including activities located within pronghorn seasonal ranges and migration corridors. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Seasonal stipulations can be used to reduce impacts from both surface disturbing activities as well as disruptive activities. The BLM

considers WGFD guidelines and recommendations (Minimum Programmatic Standards Recommended by the WGFD to sustain important Wildlife Habitats affected by Oil and Gas Development) to reduce impacts where needed, which is also applicable to individual herd units. The WGFD has identified offsite mitigation practices when habitat functionality is exceeded and identifies actions that are required to reduce impacts to a diversity of species.

Comment: In Appendix 9 of the RMP, the Exception and Waiver Criteria, the BLM states that the “Wyoming Game and Fish Department has the authority to set standards for exceptions and waivers to ensure that requests do not jeopardize wildlife populations”. Giving the Wyoming Game and Fish Department the authority to determine which requests will be granted would be a very poor decision on the part of the BLM. The BLM would make a very large mistake if it were to carry through by giving the game and fish department this authority. It simply shows a lack of balance. The BLM would do a much better job of balancing these needs and goals if it were to work with the game and fish department to set appropriate standards. The BLM should then be solely responsible for upholding its multiple use mandate by being in charge of issuing exceptions waivers.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or FWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests.

Comment: Item: pp. 2-78; Table 2-1 Comment: There seems to be some inconsistency between various sage grouse stipulations such as locations east of Hwy 789. There should be an additional explanation to explain why these differences exist in the FEIS.

Response: These differences were analyzed under different alternatives, to provide a range of management actions for assessment as required under NEPA.

Comment: pp. ES-14; the 1st paragraph. This term “delineated leks” is not used elsewhere in the DEIS, the BLM Sage Grouse IM, or in the Wyoming State Plan. Instead, protection should be limited to active leks.

Response: Greater sage-grouse lek definitions are identified in the Glossary in the RMP FEIS and are used by the BLM and WGFD wildlife biologists when identifying and monitoring these habitat types.

Comment: [page 3-142 3.19.3.4 Greater Sage Grouse Habitat Management] SERCD believes that any Sage Grouse Management Practices should be recommendations of are approved by the Wyoming Governors appointed Sage Grouse Working Group.

Response: RFO is currently utilizing the National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan, and when the local Sage-Grouse Working Group’s plan becomes available, the strategies in this document will be implemented for grouse protection as well.

Comment: BA-82 Analysis of the Affects of the Actions: General observation regarding the LAA determination for the Preble's Meadow Jumping Mouse: When one considers the very limited amount of mouse habitat on BLM lands within the RMPPA the overall affect of any single permitted action on the survival of the mouse is extremely limited.

Response: Even though there may be a limited amount of habitat on BLM lands, the fact that habitat is present must be considered. Since projects within Preble’s meadow jumping mouse habitat have the

potential to modify or destroy habitat or result in the take of a Preble's meadow jumping mouse, a likely to adversely effect call is appropriate. See BA-83, Threatened and Endangered Species, bullet 3.

Comment: I am worried that many wildlife stipulations are based upon inaccurate scientific data and need to be revised such as with sage grouse habitat.

Response: The BLM applies mitigation measures that are founded on the best scientific information available, in coordination with other agencies, to protect a diversity of resources.

Comment: BA-54 Species Conservation Measures (for all species): "For projects that cause depletions to the Platte River system, the BLM will initiate formal consultation with the Service." This statement coupled with the information provided in Table 4 suggests the Service will be consulting on all oil and gas well projects. Determination (for all species): "Implementation of the RFP RMP is likely to adversely affect the..." This blanket statement is driven by the determination that the water depletions caused by oil and gas drilling activity are significant. We believe the assumptions behind this determination are in error.

Response: It has been the consistent opinion of the USFWS that additional depletions within the Platte River Basin will jeopardize the continued existence of several T&E species. All projects that result in a depletion of surface waters within the Platte River or Colorado River Basins initiate formal consultation with the USFWS.

Comment: North Platte and Colorado River Species BA-52 Introduction; 4th paragraph: This discussion should be changed to provided that other water sources (wells, recycling, off site/out of area transport, stock ponds, etc) are also used for oil and gas drilling activity. A relatively small number of wells are drilled using live surface water sources, and the connectivity of ground water sources to the surface is unknown, the presumption of connectivity cannot be made without basis. We question the accuracy of the assumptions that ended with an estimate of 662 acre-feet being deleted from the North Platte System. We also question the significance of the removal of 662 acre-feet of water from the North Platte system as found in Table 4.

Response: The BO for the Rawlins RMP considers depletions from oil and gas activities in consultation with USFWS. No assumptions about connectivity of groundwater sources to surface waters are made. Methods for estimating these depletions are detailed in A11.2.1. Actual depletions are considered during project-specific analysis, when details relevant to the water volume estimate can be considered, such as the various water sources for drilling and construction activities. Depletion estimates based on well numbers in the RMP are only used for analysis and the determination of potential impacts to affected species and are accurate for these purposes.

Comment: Item: pp. 2-78; Table 2-1 and pp: 2-112, Table 2-10 Comment: These tables make reference to restrictions for sage grouse winter concentration areas. No definition is given as to what constitutes a sage grouse winter concentration area is provided nor is any scientific justification for applying this classification. The FEIS must provide a scientific definition and a basis for this category of concentration areas for sage grouse

Response: Winter concentration areas will be defined in the appendix in the FEIS.

Comment: The proposed alternative for the White Tailed Prairie Dog Area of Critical Environmental Concern should be amended to remove this unjustified provision because: White Tailed Prairie Dogs should not be treated as if they are an extremely sensitive and an at-risk population; Despite previous efforts by some to eradicate the species, populations of these animals are doing well; and there is no need

to raise the level of protection for White Tailed Prairie Dog Towns to a level that equals those that exist for more sensitive species such as wintering big game and sage grouse.

Response: The white-tailed prairie dog is currently listed as a 6840 species and is on the BLM State Director's Species list. The reason for this classification stems from the previous proposal to the Service to list the white-tailed prairie dog as a T&E species. RFO is protecting prairie dog towns, recognizing that dogs are a keystone species (whether or not potential for ferret reintroduction exists). Prohibition of firearms in industry vehicles, avoidance of towns as much as possible, and ferret surveys in non-block-cleared areas are an essential component in protecting dog towns. White-tailed prairie dogs are also on the WGFD list under Status 3 Species.

Comment: [I urge you to amend the preferred alternative to require oil, gas, coal, and other operations or development to take extraordinary precautions to] avoid all direct and indirect impacts to plants and animals that are State or Federally threatened or endangered, particularly mountain plovers, black-footed ferrets, and sage grouse. To avoid impacts to these species, all roads, drill pads, construction sites, and operations should be a minimum of 1,000 feet away from all prairie dog colonies; and no activity or structure should occur or be placed in or across migration routes of sage grouse. All roads, drill pads, constructions sites, and structures should be removed after plugging non-productive or depleted wells.

Response: The BLM complies with the ESA for T&E species and the BLM State Director's Sensitive Species List for sensitive species, when implementing proposed projects and activities. Current protection measures for species are appropriate to protect both habitat and life history requirements. The BLM complies with state and federal measures required for plugging and reclaiming nonproductive or depleted wells using wildlife protection measures.

Comment: Item: pp. ES-14; the last sentence of the 1st full paragraph states: "Surface disturbing or other activities potentially disruptive to Sage Grouse would be avoided in identified nesting and early brood rearing habitat between March 14 and July 15." Comment: This very statement does not attempt to limit the seasonal restriction to habitats actually associated with an active lek or being used by hen sage grouse. "Nesting and early brood rearing habitat" is broadly defined in the DEIS, the BLM IM and the state wide plan. This broad definition was not intended to be used to preclude activities in areas not being used by sage grouse. • The current timing stipulation for nesting sage-grouse is avoidance of the area within a 2 mile radius of a lek from March 15 to June 30. No scientific justification for the extended time line through July 15 has been provided. We recommend reverting back to the June 30 date: It is also necessary for the DEIS to acknowledge that sage-grouse timing stipulations can be modified or eliminated using exception, waiver, or modification criteria when appropriate surveys conclude no activity is occurring. + Taking into account the proposed language in the draft RMP regarding winter habitat and nesting/early brood rearing habitat; areas of Wyoming supporting sagebrush would be off limits from November 14 to July 15 regardless of the presence of sage grouse. The current winter use stipulation is "avoid ephemeral draws dominated by basin big sage greater than 3 feet tall where possible." This language should be adopted in the FEIS to clarify the concept of winter use areas. This is more closely aligned with what is known about the limited severe winter relief habitat used by the birds during the deepest snows.

Response: The 2-mile nesting and early brood-rearing timing stipulation would be used until greater sage-grouse nesting habitat has been identified. Then the timing stipulation would apply to all identified habitat. This timing stipulation was extended from June 30 to July 15 because of the statewide strategic plan based on the best available science. Criteria for exceptions, waivers, and modifications can be found in Appendix 9, Exceptions, Modifications, and Waivers. Winter habitat and nesting and early brood rearing habitat is currently being identified and mapped, and the appropriate timing stipulations would be applied when these areas are identified.

Comment: BLM should recognize the concerns about habitat quality, livestock relations (displacement, disease transmission from permitted and trespass domestic sheep), and succession (conifer encroachment). [Page 4-265, Section: Bighorn] grazing domestic sheep w/in 9 miles of bighorn sheep: RFO is proposing to implement this strategy in the preferred alternative. Additionally, the RFO is actively encouraging conversions of grazing allotments from sheep to cattle where conflicts with domestic sheep exist. RFO has denies conversions from cattle to sheep in the past where these conflicts are present. Also, RFO has numerous projects in bighorn sheep range including prescribed burns and hand treatments to reduce conifer encroachment.

Response: Table 2-1, Management Actions Common to All Alternatives, states that management of domestic sheep and goats would be in accordance with national BLM policy and considers the recommendations of the Wyoming Bighorn/Domestic Sheep Interaction Working Group. Map 2-3 shows domestic sheep avoidance areas.

Comment: We note that the bighorn sheep map (Map 4-3) completely omitted the Encampment River Bighorn Herd. Therefore, the cumulative impacts assessment based on this map is in error. It should be revised. [Page 4-265, Section: Bighorn]

Response: Map 4-3, Bighorn Sheep Cumulative Analysis Area, has been updated to include the Encampment River Bighorn sheep herd. In response to comments received regarding the Cumulative Impact section of the RMP DEIS, BLM has updated Section 4.20, Cumulative Impacts, in the RMP FEIS to include enhanced descriptions of cumulative impact analysis areas, improved description of reasonably foreseeable future actions, and additional analysis of potential impacts.

Comment: Not just the density but the location of fences is important [Page 4-266, Section: Pronghorn, 2nd Para.]

Response: RFO has an active fence conversion program, which focuses on priority areas, such as migration corridors. These conversions result in making older fences passable to pronghorn. Because of the potential for these impacts, Appendix 19 directs the BLM to modify portions of historic woven wire fences to reduce impacts to wildlife, specifically pronghorn. The Cumulative Impact Assessment Area (CIAA) identifies coordination between BLM and WGFD to ensure that proposed projects, including locations, are analyzed properly to eliminate and/or reduce impacts to wildlife.

Comment: BLM fails to recognize the importance of other seasonal ranges (summer, spring, fall) in contributing to the condition and survival of mule deer during winter. Strictly focusing on crucial winter ranges underestimates population and habitat impacts, particularly in a cumulative sense. [Page 4-266, Section: Mule Deer, 2nd Para.]

Response: Current knowledge of big game species points to winter range as being the most crucial habitat component. The Proposed Alternative states that surface disturbing and disruptive activities would be managed, on a case-by-case basis, in identified big game migration and transitional ranges to maintain their integrity and function for big game species in these areas. The BLM is currently conducting a radio telemetry study on mule deer to exam the locations of both transitional ranges and migration routes. From that study, potential impacts across the spectrum of habitats, including these ranges, can be identified and changes incorporated to reduce and/or eliminate these impacts. Other studies would follow to identify these sensitive ranges in other parts of the RMP FEIS area.

Comment: The RMP lists acreages of crucial winter ranges on private and state lands, but does not list the acreages of BLM-administered lands that are crucial winter ranges for these species. Why? BLM-administered acreages should also be tallied. In addition, the elk section appears to suggest all elk crucial

winter ranges exist on state and private lands. This is not true. Substantial areas of elk crucial winter ranges extend onto BLM lands north of Baggs, south of Encampment and elsewhere (Map 2-56). The RMP should discuss potential, cumulative effects of activities on lands administered by BLM. [Page 4-266, Section: Elk, Pronghorn and Mule Deer]

Response: Section 3.19.1, General Wildlife, Big Game Species Habitat Management, discusses pronghorn, mule deer, elk, and bighorn sheep crucial winter ranges. Maps 2-53 through 2-56 show these species different ranges, lambing areas, and parturition areas. In addition, CIAAs for wildlife are discussed in Section 4.20.3, Impacts by Resource, Wildlife, and Fish.

Comment: The appendix overly simplifies and misstates the sensitive period for wintering wildlife. While Jan – Mar may include the coldest periods, March and April, when animals have used much of their energy reserves, are typically the snowiest and windiest in much of the RMPPA [Page A9-1, section: Exception- Big Game]

Response: The BLM and the WGFD have cooperated in identifying the most crucial time periods for big game species. The November through April timing stipulation period is applied to protect these species in the early stages of the crucial winter time period, as well as in the later stages, according to research and wildlife monitoring of habitat use and conditions

Comment: Corridors for Wyoming's big game animals must be considered. Our pronghorn, mule deer and elk populations are our state's heritage. Protecting wildlife habitat is crucial to ensuring the survival of many species.

Response: WGFD has not refined its data on big game migration corridors within the RMPPA. Wildlife biologists are starting to quantify these crucial areas as funding permits. For example, BLM is a cooperator with WGFD in identifying migration corridors on the Atlantic Rim area. This is just the start of this effort; more of this intensive work will be done in the future.

Comment: Page A14-2 Comment: #16 The avoidance of Prairie Dog towns to protect suitable Black-footed Ferret habitat should be based on the FWS size and burrow density criteria, not avoidance just because the PD towns are over a certain size. This should be changed to be consistent with the FWS requirement.

Response: The acres stated on A14-2 #16 are based on the USFWS Black-footed ferret survey guidelines. See USFWS 1989. Black-footed ferret survey guidelines for compliance with the ESA. April 1989. USFWS Denver, 15 pp.

Comment: The BLM should not delegate authority and responsibility to any state agency because; 1. the BLM is in charge of federal land activities, not the Wyoming Game and Fish Department; and 2. The BLM's multiple use mandate and the Game and fish Department's views on multiple use differ.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or FWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests.

Comment: Proposing to manage White Tailed Prairie Dog towns as if they were at risk of extinction or an ACEC is unnecessary. This unjustified provision should be removed because; 1. Whit Tailed Prairie

Dogs should not be treated as a sensitive and at-risk population; and 2. White Tailed Prairie Dog Towns do not need to same protections as species such as wintering big game and sage grouse.

Response: The white-tailed prairie dog is currently listed on the BLM State Director's Sensitive Species List. The reason for this classification stems from the previous proposal to the Service to list the white-tailed prairie dog as a T&E species. The RFO is protecting prairie dog towns, recognizing that these species are a keystone species (whether or not potential for ferret reintroduction exists). Prohibition of firearms in industry vehicles, avoidance of towns as much as possible, and ferret surveys in non-block-cleared areas are an essential proponent in protecting dog towns. White-tailed prairie dogs are also on the WGFD list under Status 3 Species.

Comment: Unwarranted oil and gas operational restrictions in areas that do not contain sage grouse should be deleted from the Preferred Alternative because: 1. Limiting and restricting oil and gas activity in habitat that may not even be used by sage grouse can make drilling uneconomic; and 2. Between proposals for restricting oil and gas activity in winter and nesting habitats, many areas likely will be off limits to oil and gas activities.

Response: Current research and monitoring have shown that often, sage-grouse nest further from a lek than the 2-mile buffer (Holloran 2005). Thus, the 2-mile buffer protects only a proportion of nesting sage-grouse. Therefore, BLM will modify the timing restriction to include all nesting habitat when identified. When habitat has been identified, timing restrictions will be applied. Timing restrictions will not be applied to nonhabitat. In the great majority of cases, nesting habitat does not coincide with wintering habitat. Therefore, the majority of projects will not have both timing stipulations applied to them at the same time.

Comment: Page A14-3 Comment #24: Breeding habitat for Preble's Meadow Jumping Mouse has not been defined. What has been described here is the habitat protected by the FWS for the mouse year round. #25 Preble's Meadow Jumping Mouse habitat requirements are not well enough defined to allow for identification of hibernaculum. The mouse is known to hibernate from late September to early May, these dates should be revised.

Response: The protections on A14-3 #24 are designed to protect the breeding habitat for the mouse. Individual field assessments are completed for proposed projects to determine habitat presence or absence. The dates in A14-3 #25 protect the mouse during the hibernation period. The dates provide for protection during years when severe weather may come earlier than in an average year.

Comment: When considering impacts to wildlife, BLM must do more than consider just the area actually impacted by a given activity. The effects of oil and gas development, for example, are far broader and more pervasive than just the public land acreage converted to bare dirt for roads and oil pads.

Response: The BLM recognizes the potential for indirect effects, and the array of potential mitigation measures takes this into account. Please refer to Section 4.20, Cumulative Impacts.

Comment: BA-16 1st paragraph, 1st sentence: discusses protection of T&E and special status species "potential" habitat. Is the intent to protect unoccupied suitable habitat? Potential does not mean, "occupied" nor does it mean suitable.

Response: The intent is to protect habitat or potential habitat for a threatened, endangered, proposed, candidate or Special Status Species before authorizing surface disturbing activities.

Comment: Nesting/EBR habitat - Revise this definition to comport with the Wyoming Sage-Grouse plan, which intentionally does not specify the height of the herbaceous component due to the wide variability of ecological site potentials throughout the state and in the RMPPA.

Response: In Section 3.19.3.4, Greater Sage-Grouse Habitat Management, the text states that total shrub canopy cover, residual grass cover, nonfood forb cover, and litter cover are the best predictors of grouse nesting habitat. In addition, typically nests are located within sagebrush communities that have 10 percent to 30 percent canopy cover. The statement referencing herbaceous vegetation equal to or greater than 15 cm in height, in combination with 20 percent cover, shows a chance of nest success at 30 percent as an increase from other types of vegetation descriptions.

Comment: Page A152 Reducing Impacts to Sage-Grouse: Comment: 12th bullet; “Avoid surface disturbance or surface occupancy within 'A mile of the perimeter of occupied sage-grouse leks.” As discussed in numerous other places in the draft document, this BMP is worded differently than stipulations intended to provide the same protection to breeding sage-grouse, as is the 13th bullet. We suggest the definition of “occupied lek” as provided by Connelly et al 2000.

Response: Lek definitions will be provided.

Comment: Reduce the number of wild horses, get buffalo and wolves back.

Response: Reintroduction of buffalo and wolves is outside the jurisdiction of the BLM. Wild horse numbers are set by the BLM for HMAs. These areas have Herd Management Area Plans, which address site-specific information, such as wild horse numbers.

Comment: Developing ACECs around White Tailed Prairie Dog colonies and protecting sage brush habitat that is uninhabited are two more examples of how restrictions can make drilling uneconomic.

Response: Within the Proposed Plan, the RFO is not creating an ACEC for white-tailed prairie dogs. The RFO believes that current management protection requirements (stipulations and BMPs) are sufficient to protect white-tailed prairie dogs. BLM provides protection only to habitats identified as necessary to meet the life history requirements of listed species. (T&E, Proposed, Candidate, or Sensitive).

Comment: Page A15-2 Reducing Impacts to Wildlife Habitat: Comment: 5th bullet advocates “implementation of the Wyoming Bird Conservation Plan from Wyoming Partners in Flight” this amounts to de facto rule making by a special interest group, which is inappropriate and should be deleted.

Response: The BLM is a member of Wyoming Partners In Flight and was an active participant in the Wyoming Bird Conservation Plan.

Comment: BA-41 Bald Eagle: Species Conservation Measures: 1st paragraph, setbacks for protection of bald eagle nesting areas should include a discussion of site specific condition that may be considered for an exception to the setback standard. BA-43 Best Management Practices: The first paragraph discusses use of lead shot and led fishing weights, what is the relevance to the Bald Eagle?

Response: The setback distances were part of a Biological Assessment and resulting BO in close coordination with the USFWS. Deviations to these distances would be made on a site-specific basis, working with the USFWS. Because the bald eagle is known to feed on fish as well as on wounded waterfowl, the use of lead shot for waterfowl or lead fishing weights may lead to the inadvertent ingestion of lead by bald eagles, subsequently leading to lead poisoning.

Comment: BA-16, 6th paragraph: discusses protection of raptors and other avifauna from power lines, these non T&E species are not typically discussed in a BA.

Response: The BLM prepared the Biological Assessment in coordination with the USFWS. Additionally, the USFWS is the regulatory agency that oversees the Migratory Bird Treaty Act, and therefore the inclusion of protective measures for migratory bird species (raptors and other avifauna) within the Biological Assessment is warranted.

Comment: BA-16, 5th paragraph discusses protection of migratory bird species; these species are not typically discussed in a BA.

Response: The BLM prepared the Biological Assessment in coordination with the USFWS. Additionally, the USFWS is the regulatory agency that oversees the Migratory Bird Treaty Act, and therefore the inclusion of protective measures for migratory bird species within the Biological Assessment is warranted.

Comment: In Appendix 9 of the RMP, the Exception and Waiver Criteria, the BLM states that the "Wyoming Game and Fish Department has the authority to set standards for exceptions and waivers to ensure that requests do not jeopardize wildlife populations." Giving the Wyoming Game and Fish Department the authority to determine which requests will be granted would be a very poor decision on the part of the BLM. The role and mission of the BLM is not shared by the state's game and fish department, whose job it is to focus specifically on wildlife issues. The BLM would make a very large mistake if it were to carry through by giving the game and fish department this authority. It simply shows a lack of balance. After all, are we not trying to balance the needs of natural resource development with wise environmental management? The BLM would do a much better job of balancing these needs and goals if it were to work with the game and fish department to set appropriate standards. The BLM should then be solely responsible for upholding its multiple use mandate by being in charge of issuing exceptions and waivers.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or FWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests.

Comment: The Draft RMP is proposing to protect all sage grouse habitat regardless of the distance from a lek. The BLM has not shown that the current two-mile seasonal restrictions surrounding leks is an inadequate protection. Thus, the new restrictions are unwarranted.

Response: Current research and monitoring have shown that often sage-grouse nest further from a lek than the 2-mile buffer (Holloran 2005). Thus, the 2-mile buffer protects only a proportion of nesting sage-grouse. Therefore, BLM will modify the timing restriction to include all nesting habitat when identified.

Comment: Table A10-3 should be modified by removing the white-tailed prairie dog, this species was not warranted for listing and should not be provided the protection of de facto listing by being included on this table and as described in this draft RMP. The White-Tailed Prairie Dog ACEC is an absolutely unnecessary burden and is a concession to a special interest group. This is absurd.

Response: The white-tailed prairie dog is currently listed as a 6840 species and is on the BLM State Director's Species List. The reason for this classification stems from the previous proposal to the Service to list the white-tailed prairie dog as a T&E species.

Comment: In Appendix 9 of the RMP, the Exception and Waiver Criteria, the BLM states that the “Wyoming Game and Fish Department has the authority to set standards for exceptions and waivers to ensure that requests do not jeopardize wildlife populations.” Giving the Wyoming Game and Fish Department the authority to determine which requests will be granted would be a very poor decision on the part of the BLM. The role and mission of the BLM is not shared by the state’s game and fish department, whose job it is to focus specifically on wildlife issues. The BLM would make a severe mistake if it were to carry through with these criteria. It simply shows a lack of balance. After all, are we not trying to balance the needs of natural resource development with wise environmental management? The BLM would do a much better job of balancing these needs and goals if it were to work with the game and fish department to set appropriate standards. The BLM should then be solely responsible for upholding its multiple use mandate by being in charge of issuing exceptions and waivers.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or FWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests.

Comment: I would like your RMP to provide more detail in reference to the reintroduced black-footed ferret population within the area. You are also dealing with one of the most nationally significant Greater Sage-grouse populations. The RMP does not sufficiently address the conservation of these and other species.

Response: The RFO is still in the process of protecting all the species and habitat. BLM has 37 species on our sensitive list. Higher priority (because of gas field development) has been given to species such as mountain plover (formerly proposed), greater sage-grouse (petitioned for listing), white-tailed prairie dogs (because of BFF concerns), and ferruginous hawk (because of the extent of development in nesting habitat). The warm-water sensitive fish species are the subject of ongoing research and monitoring at present. The blowout penstemon and Gibben’s tongue are also currently undergoing extensive inventory and research. Because of time constraints, personnel limitations, and budgets, RFO has not been able to acquire all the needed information on the remaining species. RFO is seeking outside funding through the Bureau of Protected Species (BPS) process to coordinate with other entities (e.g., Wyoming Natural Heritage) to help us fill data gaps. As noted previously, timing stipulations, and CSUs have been applied for the higher priority species. As more information is gathered on species in the future, RFO will seek to implement the same protective measures. As a consequence of this lack of information on the remaining species, RFO does not yet have maps of “crucial habitats.”

Comment: A9-1 Procedures...: first paragraph; “The Wyoming Game and Fish Department has authority to set standards for exceptions and waivers to ensure that requests do not jeopardize wildlife populations.”
Comment: BLM cannot pass their authority and responsibility to the WG&F; they can work cooperatively with the G&F in reviewing exception and waiver requests as stated correctly in the last sentence of the paragraph. We suggest the first two sentences of the paragraph be deleted.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or USFWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests.

Comment: I am worried that many wildlife stipulations are based upon inaccurate scientific data and need to be revised such as with sage grouse habitat.

Response: RFO updates its seasonal stipulations in coordination with WGFD; this coordination involves monitoring of the affected species (such as greater sage-grouse) and its habitat, to determine when and if the species actually uses the habitat in question. These time periods of wildlife use (from BLM and WGFD field biologist data) are then used to formulate the wildlife timing stipulations.

Comment: S.W. Wyoming is in the middle of a severe, multi-year drought with no end in site. This will continue to stress wildlife and make sources of water more important than ever in the future. The BLM proposes to allow near 9,000 gas wells drilled and then will come coal bed methane with current extraction practices that require massive amounts of water to be produced and wasted. This is a resource that has not received any semblance of a management plan.

Response: The RMP does address produced water. See Table 2-4, Summary Comparison of Impacts on Water Quality, Watershed and Soils.

Comment: The wildlife and big game herds are not given adequate consideration for habitat maintenance in any of the proposed BLM alternatives. A ¼ mile zone proposed as adequate for sage grouse mitigation is laughable and severely inadequate. The BLM proposals allowing massive road building and pipeline placement does not afford and protect big game herds of elk, deer, antelope, etc. The industrial play on the Pinedale Mesa and the Jonah field demonstrate the mismanagement of public lands and resources seen as appropriate by the BLM. No impact studies on wildlife were done there prior to development and now it has been determined that big game has been left with a 50 yard wide access route between winter and summer ranges. The BLM is allowing year round activity and development without any consideration of maintaining any semblance of acceptable habitat for Wyoming wildlife.

Response: Wildlife stipulations and BMPs are implemented to protect habitat and species. As knowledge is gained through wildlife monitoring and research, these stipulations are modified to reflect necessary protection requirements. In addition, the wildlife monitoring team continues to assess wildlife requirements, impacts, and protection measures.

Comment: Unfortunately, the BLM is trying to go far beyond reasonable limitations to protect environmental interests, not the land and wildlife. For example, why is the BLM treating White Tailed Prairie Dogs as if they were extremely at risk in the planning area? The White Tailed Prairie Dog populations within the proposed area are doing well despite our trying to get rid of them for some years. They are certainly not a “sensitive species” in the Rawlins area, I can tell you that.

Response: The white-tailed prairie dog is currently listed as a 6840 species and is on the BLM State Director’s Species List. The reason for this classification stems from the previous proposal to the Service to list the white-tailed prairie dog as a T&E species. RFO is protecting prairie dog towns, recognizing that dogs are a keystone species (whether or not potential for ferret reintroduction exists). Prohibition of firearms in industry vehicles, avoidance of towns as much as possible, and ferret surveys in non-block-cleared areas are an essential proponent in protecting dog towns. White-tailed prairie dogs are also on the WGFD list under Status 3 Species.

Comment: Several sagebrush-dependent species are sensitive to overgrazing. Baker et al. (1976) classified sage grouse, sage thrasher, sage sparrow, and Brewer’s sparrow as sagebrush obligates, while green-tailed towhee and vesper sparrow were classified as near obligates. Bock et al. (1993b) reviewed the impacts of livestock grazing on birds, and reached the following conclusion: “All of these factors lead us to conclude that there is an urgent need for protection, restoration, and long-term study of shrub steppe ecosystems (including their avifauna) dominated by native perennial grasses, cryptogams, and moderate densities of shrubs, as we suspect these ecosystems existed prior to introductions of domestic livestock”

(p. 304). The adoption of strong standards to prevent overgrazing should be codified in the new Rawlins RMP.

Response: Appropriate actions are implemented on allotments that are not in compliance with the Wyoming Standards for Healthy Rangelands (2.4). The Narrative in Section 4.7.1 of the FEIS states that livestock management adjustments would be considered when wildlife and livestock conflicts arise. In FLPMA, Congress declared that it is the policy of the United States that BLM should manage the public lands in a manner that will provide “food and habitat for fish and wildlife and domestic animals.”

Comment: It is critically important that the BLM understand the role that white-tailed prairie dogs play in supporting other imperiled species if the agency has any chance of meeting its obligations toward these Sensitive species and if the agency is truly committed to not approving projects that will contribute to the need to list these species under the Endangered Species Act. For example, it makes little sense to designate ACECs primarily for ferruginous hawks and/or mountain plovers and not evaluate whether any special prairie dog management should occur in these areas.

Response: The BLM protects the white-tailed prairie dog and black-tailed prairie dog under the BLM Wyoming 6840 Manual for sensitive species and under the ESA for the endangered black-footed ferret. Surface disturbing activities are located outside of existing prairie dog towns to protect both the prairie dog and the black-footed ferret. There are projects that are located in potential black-footed ferret habitat only after a survey has been completed and ferrets are not present, but this is very rare (less than 1 percent of the time), and prairie dogs have been known to adjust their burrows accordingly. ACECs that are identified are analyzed as potential habitat for a diversity of wildlife species, including, but not limited to, 6840 species and ESA species.

Comment: Unfortunately, the DEIS’s discussion of white-tailed prairie dog biology and ecology is extremely weak and ill-informed. It appears to assume that there are few if any differences between black-tailed and white-tailed prairie dogs, and relies on a 1980 field guide to North American mammals as its main reference (Burt et al. 1980). This is unacceptable, shoddy work. [See supporting documentation and examples]

Response: In Appendix 14, BLM recognizes the management requirements for both the white-tailed prairie dog and the black-tailed prairie dog and uses the acreage difference in habitat assessments for these species. Appendices 10 and 15 provide additional management actions that would be implemented to protect the white-tailed prairie dog.

Comment: Large prairie dog colonies, plus a half-mile buffer, should be withdrawn from all surface-disturbing activities with minerals leased only under “No Surface Occupancy” provisions. To the extent that surface disturbing activities would be “avoided” in the Preferred Alternative, the BLM has not done enough to protect these species. These activities should be “prohibited” within prairie dog colonies, as under Alternative 3. This and the additional protective measures proposed under Alternative 3 (see DEIS at 2-75, 2-76) are minimum protection that should be granted to ensure the viability of prairie dogs throughout the planning area.

Response: The white-tailed and black-tailed prairie dogs are considered BLM Wyoming sensitive species and are currently protected under the BLM Manual 6840. In addition, habitat that has the potential to be BFF habitat is also protected under the ESA.

Comment: Because prairie dogs in the Great Divide area are already stressed by endemic or epidemic levels of sylvatic plague, stronger conservation measures are needed to prevent impacts from activities that can in fact be controlled.

Response: The BLM Manual 6840 is used to protect sensitive species, such as the prairie dog, as well as to habitat for such species. In coordination with the WGFD, the BLM continues to monitor prairie dog populations and evaluate their health and status with the field office area.

Comment: 2-16 It appears that in the biological assessment prepared for the RMP BLM has identified a number of conservation measures it will apply to listed species, and these are apparently reflected in Appendix 14, although that is not clear. But an important question is this: when will the biological assessment be subject to consultation with the Fish and Wildlife Service? The whole point of preparing a biological assessment is to facilitate the interagency cooperation that Section 7 consultation represents. Does BLM agree with this statement or not? Why or why not? An important reason for consultation is to allow the Fish and Wildlife Service to provide input into what conservation measures should be applied to protect listed species, and to not have agencies make these assessments unilaterally. Does the BLM agree with this statement? Why or why not? Thus, again, it is crucial that the biological assessment undergo consultation prior to preparation of the final EIS so that the provisions in Appendix 14 can be modified as necessary. Will BLM adopt the conservation recommendations made by the Fish and Wildlife Service as a result of consultation?

Response: The Biological Assessment has been prepared and is included in the FEIS. This document complies with the ESA using the appropriate conservation measures located in Appendix 14, Biological Opinion, which includes Conservation Measures of the FEIS. In addition, the Terms and Conditions located in the BO are followed to comply with both informal conferencing and formal consultation with the USFWS for compliance with the ESA. The BLM and USFWS have consulted on the Biological Assessment early in the NEPA process and the final Biological Assessment and BO will be included in the RMP FEIS (Appendix 14).

Comment: Virtually the entire area managed by the Rawlins Field Office is habitat for either the white-tailed or black-tailed prairie dog. Collectively, all species of prairie dogs have been reduced to only 2% of their historical range (Miller et al. 1990). White-tailed prairie dogs have declined to 8% of their native range in North America, and the survival of remaining populations is threatened by habitat destruction and modification, sylvatic plague, recreational shooting, poisoning, oil, gas, and mineral extraction, fire suppression, overgrazing, off-road vehicle use, noxious weeds, and climate change (Center for Native Ecosystems et al. 2002). In Wyoming, the white-tailed prairie dog occupies less than 2% of the suitable habitat for the species (Center for Native Ecosystems et al. 2002). For Wyoming's Great Divide Basin, Maxell (1973) noted, "Most active prairie dog towns were located some distance from the main thoroughfares in the Basin, probably due to human predation in the form of varmint hunters" (p.85). In the Great Divide area, prairie dog colonies are radically reduced from historic distributions, and are in need of protection and recovery. [See supporting information]

Response: The BLM Manual 6840 is used to protect sensitive species, such as the prairie dog, as well as improve habitat for such species. The BLM coordinates with the WGFD and the FWS and continues to monitor prairie dog populations, implement protection measures, and evaluate their health and status within the field office area.

Comment: Black-footed ferrets may be indistinguishable from prairie dogs to untrained observers or at a distance. While mainly nocturnal, ferrets can and do emerge at the surface of prairie dog towns during daylight hours. With these facts in mind, prairie dog shooting should be prohibited in areas known to be inhabited by ferrets or within a reasonable distance that suggests that dispersing ferrets may be present. Such a policy would minimize the chances of ESA "take" of ferrets by prairie dog shooters, which could lead to stiff penalties.

Response: Specific wildlife harvest activities and laws are determined at the state level and are regulated by the WGFD. The BLM has the authority to regulate activities that are implemented on federal lands and control actions that may affect the prairie dog and black-footed ferret under these conditions.

Comment: As BLM recognizes, “Black-footed ferret numbers have been shown to be directly linked to fluctuations in the prairie dog population.” DEIS at 3-138. It is therefore critically important to maintain prairie dog populations in areas currently inhabited or potentially habitable by black-footed ferrets.

Response: The determination of prairie dog complexes is described in Appendix 14 and is based on both size and burrow density to determine if potential black-footed ferret habitat exists. The BLM also protects prairie dog towns that do not qualify as black-footed ferret habitat, since it provides habitat for a diversity of species, including BLM 6840 state sensitive species. Population trends and reintroduction sites fall under the jurisdiction of the WGFD and USFWS. Black-footed Ferret Habitat Non-Block Cleared Areas for the black-footed ferret have been identified and will be protected under BLM management.

Comment: Prairie dog colonies must be protected and restored to present new potential ferret release sites, such as those near Saratoga and Wheatland Reservoir Number 2. The presence of one of the world’s most endangered mammals should certainly have a strong bearing on the management of the lands on which they are found, and therefore this baseline information is critically important to the BLM’s ability to make sound and well-informed decisions on long-term land management pursuant to NEPA.

Response: Population trends and reintroduction sites fall under the jurisdiction of the WGFD and USFWS. Black-footed Ferret Habitat Non-Block Cleared Areas for the black-footed ferret have been identified and will be protected under BLM management.

Comment: Standard surveys of all areas to locate active leks should be conducted in spring 2005 and continue at 3-year intervals. This will provide data on lek extinction and recruitment. This is the minimum needed to monitor sage-grouse populations.

Response: RFO and WGFD biologists monitor leks each year for activity. Selected leks are targeted for intensive count monitoring to gain statistical trends over time. There are roughly 500 leks within the field office area, which limits the number that available personnel can visit in a given season. The use of statistically valid monitoring approaches will be a vital component of conservation planning efforts for sage-grouse.

Comment: While the Affected Environment section of the DEIS contains a section on black-footed ferrets, it fails to provide baseline information on the status and trend of black-footed ferrets within the RMPPA beyond noting that “suitable habitat does exist.” DEIS at 3-138. In fact, there is a wild black-footed ferret population that occurs in the Shirley Basin region of the RMPPA, using lands that include BLM-administered public surface. This population has already survived a sylvatic plague episode among its host prairie dog population. The Affected Environment section of the EIS needs to present the best available population estimates for this population for every year that this data is available, note (at least generally) where these ferrets are known to live, and provide locations for other ferret reintroduction sites within the RMPPA which are currently under consideration for ferret reintroduction.

Response: The black-footed ferret population that occurs in the Shirley Basin is a nonessential experimental population; therefore this population is not afforded the same protection measures as a listed species in a naturally occurring wild population. Population trends and reintroduction sites fall under the jurisdiction of the WGFD and USFWS.

Comment: Oil and gas development should be sited well back from lek sites.

Response: Surface disturbing and disruptive activities are prohibited within ¼ mile of leks.

Comment: The Rawlins RMP should provide specific standards on grazing in areas known to be inhabited by sharp-tailed grouse to optimize habitat conditions for these birds.

Response: BLM National Sage-Grouse Strategy and Wyoming Greater Sage-Grouse Conservation Plan are applied during implementation of Standards and Guidelines assessments (the BLM's land health assessment methodology) conducted at the watershed-scale within the RMPPA.

Comment: areas within one mile of a sharp-tailed grouse lek should be placed under NSO stipulations.

Response: The ¼-mile lek NSO is in compliance with the National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan.

Comment: The available data on leks suggest that not all active lek sites have been located and the status (active, inactive << 2 years, > 2years]) of each site mapped is poorly known. Further, there are gaps (some leks are not counted every year) in the count data and number of counts/lek in a given year vary. The available long-term trend in numbers of cocks appears to be down but the problems identified make data analysis difficult. Since active sage-grouse leks are relatively easy to locate during late March and April, standard surveys of all areas within the Rawlins Resource Area should be conducted in April 2005 and continuing at 3-year intervals. All known lek sites should be checked for activity in spring 2005. Those classified as active should be counted (number of cocks) 3-4 times each spring at 7-10 day intervals starting in late March- early April, depending upon weather conditions, and continuing into early May. Those classified as inactive should be checked in late April/early May every 2-3 years to ascertain any change in status. UTM (or GIS) coordinates for all lek sites should be taken and plotted on base maps.

Response: RFO and WGFD biologists monitor leks each year for activity. Selected leks are targeted for intensive count monitoring to gain statistical trends over time. Given time and personnel constraints, it is not possible to census each lek in a given season, as there are roughly 500 leks within the field office area.

Comment: Areas within 3 miles of a sage grouse lek should be put under year-round stipulations preventing habitat alterations.

Response: The ¼-mile lek NSO is in compliance with the National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan.

Comment: The literature cited in the DEIS on sage-grouse is not adequate nor current as Braun et al. (2002) is not cited on the impacts of oil and gas activities on sage grouse, Rowland (2004) is not cited on effects of habitat management practices, Schroeder et al. (2004) is not cited on overall distribution of sage-grouse and sagebrush habitats, and there is no citation of the Conservation Assessment on greater sage-grouse prepared by Connelly et al. (2004) for the Western Association of Fish and Wildlife Agencies.

Response: It is not the intention of this document to provide a literature review on sage-grouse habitat requirements or life history characteristics. Pertinent literature and the best available scientific information was used in the preparation of both the BLM National Sage-Grouse Strategy, the Wyoming Greater Sage-Grouse Conservation Plan.

Comment: Areas within 3 miles of a sage grouse lek should be put under year-round "No Surface Occupancy" stipulations.

Response: The ¼-mile lek NSO is in compliance with the National Sage-Grouse Strategy, and the Wyoming Greater Sage-Grouse Conservation Plan.

Comment: Prairie dog colonies within 7 km of each other should be viewed as a “complex” for the purpose of black-footed ferret reintroduction (USFWS 1989).

Response: The determination of prairie dog complexes is described in Appendix 14 and is based on both size and burrow density to determine if potential black-footed ferret habitat exists. The BLM also protects prairie dog towns that do not qualify as black-footed ferret habitat since it provides habitat for a diversity of species, including BLM 6840 state sensitive species.

Comment: Assessment of the long-term effects of any use or disturbance, especially oil and gas or other energy-related development, on sage-grouse and the health of the sagebrush steppe should be based on collection and analysis of population information in spring, collection and analysis of harvest information, and numbers of birds counted in selected winter habitat. Sage-grouse population statistics collected in spring are those related to number of active leks per unit of area and total number of cocks counted on a sample of randomly selected, statistically defensible accessible Isles. Harvest data collection should focus on analysis of wings for changes in ratios of chicks/hen and males to females in both adult (including yearlings if not separable) and chick age classes. Once winter use areas are identified, standardized line transects should be established and annually sampled (using aircraft) following current sampling theory to estimate number of birds present. Sampling should occur immediately following fresh snowfall or during maximum snow accumulation. Changes in vegetation “quality” should be monitored at 3-5 year intervals at a statistically valid sampling rate along permanent 0.6-mile belt transects. Measurements desired include live sagebrush canopy cover, sagebrush height, and ground cover of native grasses and forbs: (This should also include measurement of residual grass height.) Modeling of the potential effects of environmental events such as drought (measured by the Palmer Drought Index) and severe winters (length of period of snow cover, depth of snow, temperature) should also be pursued. The Appendix (# 17) on Monitoring and Evaluation is notably deficient in reassuring anyone that scientific protocols will be used and the results will be properly evaluated.

Response: Thank you for your comments. The use of statistically valid monitoring approaches will be a vital component of conservation planning efforts for sage-grouse.

Comment: 3-138 A brief mention is made of the Shirley Basin experimental population of black-footed ferrets. The discussion of this important population and the effort being made toward conserving the ferret should be increased substantially. What is the status of this population? What is BLM doing to maintain it? What is BLM doing to allow for it to expand into unoccupied prairie dog colonies? Will BLM seek to create opportunities for this population to expand into unoccupied prairie dog colonies? Why or why not? Does BLM agree that if this population were to expand the threats faced by the ferret would be of a lesser magnitude and that expansion of range would be a step toward recovery?

Response: The Shirley Basin black-footed ferrets are classified as a nonessential experimental population. The 2004 surveys that were completed by the WGFD revealed that the Shirley Basin ferret population continues to grow. Spotlighting in 2004 showed 21 litters, 58 kits, and 88 total animals. There were 10 litters totaling at least 52 animals identified in 2003. These animals are descendants of the 228 black-footed ferrets released in the area from 1991 to 1994.

Comment: Mitigation should be emphasized for all activities known to negatively impact sage-grouse. Mitigation measures could include, but are not limited to: burial or modification of power lines, off set drilling, road closures and time restrictions, removal of livestock grazing, nitrogen fertilization of winter and nesting areas, removal or modification of existing fences, etc. Full mitigation would be to replace the

exact number of sage-grouse impacted by development activities by increasing the number per unit of area that the remaining areas can support to equal the number displaced. This is the minimum needed to maintain sage-grouse populations.

Response: The Rawlins Field Office is currently using the BLM National Sage-Grouse Strategy and Wyoming Greater Sage-Grouse Conservation Plan to guide the identification of mitigation measures to be included in this RMP. As local conservation planning efforts proceed and additional guidance is generated, adoption of new management actions will not be precluded by this RMP. Additionally, many of the mitigations listed in your comment are considered BMPs and will be applied as COAs.

Comment: Actions which alter the sediment load or water quantity in the Little Snake jeopardize the survival of the Colorado River Endangered fishes. According to the US Fish and Wildlife Service (1999b), “it is assumed that these endemic fishes [Colorado River Endangered Species] evolved under natural conditions of high turbidity; therefore, the retention of these highly turbid conditions is probably an important factor in maintaining the ability of these fish to compete with non-natives that may not have evolved under similar conditions” (p.7). The U.S. Fish and Wildlife Service (1999b) found that flow depletion inherent to the proposed High Savery Dam “is likely to jeopardize the continued existence of the Colorado pikeminnow, razorback sucker, humpback chub, and bonytail, and is likely to destroy or adversely modify designated critical habitat” in the Yampa and Green Rivers (p. 34). Actions which reduce the turbidity of the Little Snake must be prohibited.

Response: These potential issues are addressed in the document. Please refer to Appendices 13, 14, and 15.

Comment: Management of mid to late summer brood-rearing areas should encourage forb regrowth while maintaining at least a 6 inch residual grass height with taller (> 24 inches in height), live sagebrush of > 15% canopy cover in close (< 200 yds) proximity for use as escape cover. This is the minimum needed to maintain sage-grouse populations.

Response: Incorporation of specific habitat requirements within local conservation planning efforts and implementation of conservation strategies through the use of Standards and Guidelines assessments (the BLM’s land health assessment) should ensure consideration of the suitability of habitat for sage-grouse.

Comment: BLM management should seek to minimize populations of white sucker in order to reduce hybridization risks.

Response: The genetic consequences and conservation implications of hybridization among native and exotic suckers are currently the focus of a research project, funded by BLM, at the University of Wyoming. Additional research is being conducted to investigate opportunities to remove or control exotic species within the upper Muddy Creek watershed. This watershed contains the only streams within the field office area where white suckers are currently thought to represent a threat to the persistence of native fishes. As research findings are assessed, opportunities to manage white sucker populations within this watershed will be pursued in cooperation with the WGFD.

Comment: Adherence to time of use for restriction of activities from 6:00 PM through 9:00 AM during the breeding and nesting periods should be strictly monitored and enforced. This is the minimum needed to maintain sage-grouse populations.

Response: Timing restrictions will be enforced, and a system of compliance checks is in place to ensure adherence to stipulations.

Comment: None of the 4 Alternatives adequately describe or analyze the expected impacts on sage-grouse distribution and abundance within the Rawlins Resource Area as a result of any specific Alternative or the preferred Alternative. My professional judgment is that all Alternatives (including the No Action Alternative) will fail to slow or cause the present declines in sage-grouse populations to stabilize. Alternatives 2 and 4 will increase the declines in distribution and abundance of sage-grouse in the Rawlins Resource Area. All of the proposed mitigation measures (Appendix # 1, page 3) for sage-grouse are totally inadequate; Further, all of those identified can be excepted, waived, or modified by the “Authorized Officer” (Appendix # 1, page 3, # 2, a, b, and c). Even if the few listed (Appendix 1, page 3) were implemented, they would have little positive impact on sage-grouse populations.

Response: If proposed mitigations prove to be inadequate, the BLM will have the opportunity to adjust its management to better manage the habitat of sage-grouse. One opportunity will be available as local conservation planning efforts proceed. The implementation of conservation actions identified within local conservation plans will not be hindered by this RMP.

Comment: Another extremely disappointing example of the BLM’s analysis of the white-tailed prairie dog’s current status is the one sentence treatment declines from historical numbers gets: “Prairie dogs were once numerous on the prairies but have been reduced to a few complexes through poisoning operations (Burt et al., 1980)” (p. 3-84). Again, the preparers of the DEIS demonstrate that they are uninformed about white-tailed prairie dog ecology and status. This is not a prairie species. Yes, historical poisoning is partly to blame for the white-tailed’s current plight, but sylvatic plague, a much greater current threat, is not even mentioned here, and the Wyoming BLM’s current push to convert much of the white-tailed’s range to oil and gas fields is not addressed. How can we have any confidence that the BLM will prevent the extinction of this species if the DEIS cannot demonstrate that the agency is acquainted with elementary aspects of the white-tailed prairie dog’s ecology and status?

Response: The BLM protects the white-tailed prairie dog and black-tailed prairie dog under the BLM Wyoming 6840 Manual for sensitive species and under the ESA for the endangered black-footed ferret. Surface disturbing activities are located outside of existing prairie dog towns to protect both the prairie dog and the black-footed ferret. There are projects that are located in potential black-footed ferret habitat only after a survey has been completed and ferrets are not present, but this is very rare (less than 1 percent of the time), and prairie dogs have been known to adjust their burrows accordingly.

Comment: It would also be desirable to establish concurrent long-term monitoring in areas of coal bed methane gas development in Campbell County and also within the Wind River Front area where there is currently no oil and gas development (the area is presently prohibited from new leasing) to compare with the data collected in the Rawlins Resource Area.

Response: Long-term monitoring is a part of any project such as a CBNG field.

Comment: It seems foolish to spray poisons such as malathion in and around known habitat for the endangered Wyoming toad. See DEIS at 2-75. Amphibians easily absorb chemicals through their skin, making them particularly sensitive to sprayed insecticides. Spraying of insecticides in Wyoming toad habitat is likely to result in take of Wyoming toads, and will certainly jeopardize the population. Thus, only Alternative 3 is compliant with the Endangered Species Act. Provisions preventing streamcourse degradation in boreal toad habitat (as under Alternative 3) should also be adopted.

Response: The use of Malathion, or other pesticides, would be authorized near Wyoming toad-occupied habitat, on a case-by-case basis, in which consultation with the USFWS occurs. Projects would not be implemented if harm and/or death to the toads would occur.

Comment: Present mitigation measures to protect sage-grouse and their habitats in the existing Rawlins Resource Area DEIS are minimal (Appendix #1) and have little scientific basis. The BLM should endorse and follow the “Guidelines to manage sage grouse populations and their habitats” (Connelly et al. 2000). Consideration should also be given to following the concluding comments of Braun et al. (2002) that strongly recommend that it is the responsibility of the oil and gas industry to demonstrate their activities have no negative impacts initially, short-term, or over the long-term. Effective mitigation practices, in addition to those in the Guidelines (Connelly et al. 2000), include permanent and seasonal road closures, burial and or modification of power lines, removal or modifications of fences and other structures, fertilization of sage-grouse winter ranges with nitrogen, and reduction or complete permanent elimination of other uses such as livestock grazing, especially on areas where oil and gas production is permitted. Mitigation should also consider those impacts that can be reasonably expected including cumulative (with other factors) effects. Full mitigation would require increasing the number (on a per unit basis) of sage-grouse in non-affected areas to equal the reduction in numbers of sage-grouse in affected areas. Research on developing methodology to enhance sagebrush habitats (to support higher densities of sage-grouse) should also be productive.

Response: The Rawlins Field Office is currently using the BLM National Sage-Grouse Strategy and Wyoming Greater Sage-Conservation Plan to guide the identification of mitigation measures to be included in this RMP. As local conservation planning efforts proceed and additional guidance is generated, adoption of new management actions will not be precluded by this RMP.

Comment: Nowhere is there mention of the possible negative effects of seismic activities: It appears the BLM has avoided recognition of short-term effects of trails, crushing of vegetation, and direct and indirect impacts to sage-grouse from use of large vehicles involved in this activity. Unfortunately, there apparently have been no studies on the immediate impacts of seismic activities. Until demonstrated otherwise, seismic activities should be considered as factors that are negative for sagebrush habitats as they provide trails for increased predator access, they fragment habitats useful to sage-grouse, they decrease live sagebrush and forbs needed by sage-grouse, and could potentially disrupt breeding activities and nesting activities. BLM should require the oil and gas industry to fund well-designed scientific research on the effects of seismic activities on sage-grouse and their habitats.

Response: Seismic operations are considered a surface disturbing or disruptive activity. Therefore, all mitigations identified within the Wildlife section of Table 2-1 would apply.

Comment: While the Great Divide Basin is devoid of native fishes, the Little Snake River watershed is home to several sensitive endemic species, and these waters contribute in important ways to the waters of the upper Colorado Basin, home to 5 species of endangered fishes. According to Langner and Flather (1994), 34% of the native fishes in the upper Colorado Basin are threatened, endangered, or extinct. A Section 7 consultation with the U.S. Fish and Wildlife Service will be needed for this plan. In addition, the hornyhead chub is found in the Laramie River above Duck Creek, and these waters must also be protected from impacts. Thus, special conservation efforts are needed to protect resident fishes as well as downstream waters.

Response: Thank you for your concerns regarding native fishes. BLM agrees that the conservation and management of rare native fishes will be an important consideration for the BLM to meet its multiple-use mandate.

Comment: As part of its mitigation guidelines and standard practices for surface disturbing activities, Wyoming BLM has imposed a restriction on activity within 2 miles of leks during the 8:00 PM to 8:00 AM interval from 1 March through 15 May which has been extended through 15 July (to benefit nesting females and broods) within 2 miles from leks (Rawlins DEIS). These dates provide minimal mitigation

during the breeding and nesting periods as there is little monitoring of adherence to these restrictions and those in place can be modified. In actual practice, there is little protection from physical disturbance of habitats useful to sage-grouse nesting outside of the artificial 0.25-mile radius from active leks. Most critically, there is no recognition of the importance of sage-grouse winter use habitat and only minimal stipulations to help protect these habitats (only “within identified winter habitat”). The BLM also fails to adequately address the cumulative effects on sage-grouse of all treatments (not limited to oil and gas developments).

Response: The timing stipulation applied within a 2-mile radius of leks applies to all hours of the day, until the stipulation period expires on July 15. RFO, industry, WGFD, and consulting firms are currently in the research process to identify appropriate vegetation characteristics of sage-grouse winter habitat. Areas identified as winter concentration areas will be identified and have timing stipulations placed on them. Sage-grouse in normal winters do move frequently from sagebrush patch to patch; until these areas are identified, it is extremely difficult to determine which patches are most critical to grouse during a normal precipitation winter. Radio-telemetry and flight studies are currently underway to determine which sagebrush patches are critical to wintering grouse.

Comment: We have the following concerns about impacts to native fishes that are likely to result from actions permitted under the new Rawlins Resource Management Plan. Please address each of these concerns in forthcoming NEPA documentation. The principle potential impact to native fishes throughout the planning area is the surface discharge of coalbed methane wastewater throughout the planning area. Current protective stipulations are almost sufficient under the Preferred Alternative for the Colorado River Basin, but the proposal to allow surface discharge of wastewater in the North Platte drainage in the absence of filtration to match effluent water to the chemistry of receiving water bodies is likely to result in major impacts to aquatic communities, both proximally and in downstream reaches of the North Platte harboring endangered species such as the pallid sturgeon. Therefore, the BLM should adopt our recommendation to inject all produced waters in subsurface aquifers of equal or lower quality, or at minimum, to require operators to filter produced water to remove salts, heavy metals, and other pollutants such that produced water quality equals or exceeds the water quality of the receiving water body or near-surface aquifer.

Response: Under the Proposed Plan, each of the methods of disposal identified would be acceptable, depending on the outcomes of subsequent NEPA analyses and WDEQ requirements.

Comment: Long-term monitoring efforts (20-30 years at the minimum) and research studies to tease apart impacts of energy development and other multiple use activities are critically needed in the Rawlins Resource Area. These efforts should focus on public lands (and include immediately adjacent private and State lands) and be funded by Federal land management agencies and the oil and gas industry. Monitoring and evaluation is briefly mentioned (Appendix 17) but no mention is made of what procedures will be followed if sage-grouse populations decline. The cumulative effects of all human-induced practices in the sagebrush steppe on sage-grouse population health as measured by numbers of active leks, trends in numbers of males counted, and chicks per hen need to be fully evaluated and studied.

Response: The BLM continues to support monitoring and applied research efforts for sage-grouse, as well as for a number of other species of concern. BLM agrees that more work will be needed to identify biologically meaningful conservation strategies for sage-grouse, as population trends are identified.

Comment: The DEIS should have presented data on trends in numbers of active sage-grouse leks, counts of males on Ides, and production data such as chicks per hen which would have allowed a thorough analysis. In the absence of these data, adequate analysis of the direct and cumulative impacts of the four proposed alternatives is not possible. In addition to the already substantial coal, oil, and gas development

impacts, there are the additive effects of livestock grazing, power line and road placement, ranch building placement, and management treatments of sagebrush steppe areas to improve forage for livestock. All of these factors (and many more) have cumulative effects on ecosystem health and trends in numbers of all animals that are dependent upon the sagebrush steppe.

Response: Assessment of the status of sage-grouse populations and the suitability of habitat are best approached at the conservation planning level. Within the RMP, BLM has attempted to incorporate both the BLM National Sage-Grouse Strategy and Wyoming Greater Sage-Grouse Conservation Plan within the context of multiple-use management. Additionally, as local conservation strategies are developed, the Proposed Plan of the RMP will not prohibit their implementation.

Comment: Review of the available data suggests only general knowledge of where broods have been observed. These data appear to not have been mapped in relation to known sources of water (at ground level) or at riparian sites along streams, springs, etc. This should be done so that additional management consideration can be given to these areas. Management that should be in place includes movement of livestock to avoid degradation of plant communities in moist sites and riparian areas, and fencing to allow livestock access to water only in sites where erosion and plant community degradation would not be expected or could be controlled.

Response: The management and protection of riparian/wetland areas has been a priority for the BLM under the previous land use plan and remains so under this RMP. See the Water Quality, Watershed and Soils section in Table 2-1 for specific management actions to be taken within riparian/wetland areas.

Comment: Brood-rearing habitats should thus be identified and managed to maximize sage grouse recruitment success.

Response: As noted, RFO and WGF D are still in the process of identifying nesting and early brood-rearing habitat. In the future, these areas (even if outside the 2-mile lek buffer) will have seasonal timing stipulations placed on them.

Comment: The oil and gas industry should fund the monitoring and long-term research needed throughout the life of the project and the Rawlins RMP should make this a specific requirement in any new oil and gas development projects. This critical monitoring should continue until sage-grouse populations return to pre-disturbance levels, which could exceed 30 years. Cause and effect studies using an active adaptive management approach (Walters 1986) are necessary to fully understand the implications of oil and gas development on sage-grouse.

Response: The BLM is currently collaborating with industry representatives to conduct several applied research efforts. BLM hopes to continue to enhance this relationship to answer questions pertinent to each party.

Comment: Fire and Fuels Management. The DEIS indicates that wildland fire suppression and fuels management will be implemented for communities at risk, industrial interface areas, and areas of high priority resource values. EPA is concerned about the scale and frequency of those actions as they may affect aquatic and terrestrial resources.

Response: The scale and frequency of wildland fire and urban interface activities are listed in Appendix 33, Reasonably Foreseeable Developments and Reasonably Foreseeable Actions (RFD/RFA) Tables, in the RMP FEIS. The impacts of these actions on aquatic and terrestrial resources are also included in Section 4.4, Wildland Fire and Fuels, in the RMP FEIS.

Comment: For most wildlife species, substantially stronger mitigation measures than those provided Alternative 3 are needed to ensure the viability of populations within the planning area. The Rawlins RMP should provide for properly functioning condition for all wildlife habitats, not just for riparian habitats as under the Healthy Rangelands provisions of the various alternatives.

Response: The Healthy Rangelands Standards does consider wildlife habitat under Standard 4-Wildlife/Threatened and Endangered Species Habitat Health, Fisheries, Weeds. Appendix 8, Monitoring Methods to Assess Wyoming Standards and Guidelines for Healthy Rangelands, contains the methods required to assess for watershed, riparian/wetland, upland vegetation, and wildlife habitat health, as well as for water and air quality.

Comment: Oil and Gas Disturbance. Total oil and gas disturbance by wells is only 57,545 acres. However, 90% of the RMPPA is available for oil and gas development. Please estimate how much fish and wildlife habitat will be adversely impacted by oil and gas development. Please evaluate the potential impacts to wildlife from those total habitat impacts. From the information provided it appears that nearly all of the RMPPA's wildlife habitat will be adversely impacted to some degree, because of habitat fragmentation, migration and movement corridor disruption, noise and other disturbances, road collisions and other human-wildlife conflicts, etc.

Response: The RFO uses the best available wildlife data to determine potential impacts to wildlife species as a result of implementing proposed projects. Oil and gas development projects are analyzed at the EA/EIS level, and impacts to wildlife habitat fragmentation, disruption to migration corridors, road collisions, noise, and other disturbances caused by human-wildlife conflicts are analyzed.

Comment: A landscape-scale perspective is appropriate to evaluate wildlife habitats and impacts unless the presence of biotic species that inhabit a wide range of landscapes indicates a need for a larger scale (e.g., wide-ranging predators or neo-tropical birds). Where indicator species are used, they should be representative of discrete, specific habitats or conditions. Specifically, we believe the document should have addressed: A) The diversity and uniqueness of flora and fauna that exist in the analysis area. A review of local climatic diversity, topography and ecotones is helpful to identify local biodiversity. B). A discussion of nearby, large, undisturbed habitats that add to local diversity stability (such as Wilderness and Inventoried Roadless Area). C) The effects of alternatives on the maintenance of diversity and on the abundance of existing species populations. D) The cumulative effects of past projects and proposed and approved future projects on diversity stability, fragmentation, connectivity with adjacent landscapes, and disruption to processes or functions.

Response: Section 3.15, Vegetation, and Section 3.19, Wildlife and Fish, identify a diversity of habitat types and associated stability, fragmentation, connectivity, and disturbance elements that occur or have the potential to occur as a result of implementing proposed projects within the RMPPA. The RFO uses the best available wildlife data to determine potential impacts to wildlife species as a result of implementing these actions.

Comment: Connectivity of habitats is not evaluated nor disclosed throughout the document. For example, the RFD for oil and gas, for the 20-year planning period, indicates the total number of wells, acres disturbed, and road mileage, but the area of influence on water quality, aquatic resources, terrestrial habitat and wildlife, and so forth is much greater than those impacts stated in the RMP. The zones of wildlife disturbance, habitat fragmentation, effects on fish and wildlife movement corridors, human-wildlife conflicts, and other impacts are understated by the 57,545 acres, miles of roads, and other “footprint” only impacts that are presented in the RMP. Please establish estimates of the total land area that is affected adversely by the RMP actions, not just the footprint of those actions. From the description of activities, it appears that the large majority wildlife habitats and lands overall in the RMPPA will be

adversely affected. To improve the connectivity of habitats within the “checker board” pattern of land ownership, BLM could possibly establish a cooperative agreement between private, state, and other federal agencies to establish a goal and a plan for addressing these concerns.

Response: The RFO uses the best available wildlife data to determine potential impacts to wildlife species as a result of implementing proposed projects. These projects are analyzed at the EA/EIS level, and wildlife habitat fragmentation, disruption to migration corridors, road collisions, noise, and other disturbances caused by human-wildlife conflicts are analyzed. It should be noted that cooperative agreements between private and state landowners will be implemented, when opportunities arise, but are outside the scope of this document.

Comment: There is no quantified or useful qualitative information in the DEIS/RMP regarding the expected, impacts on fish and wildlife. Obviously a great deal of land disturbance, habitat fragmentation, noise disturbance, air emissions, potentially emissions of water pollutants, and other impacts are inevitable with the Preferred Alternative. However, with little information about the magnitude of likely impacts to fish and wildlife, the public and decision-makers lack key information to determine whether resources that currently are viable or protected will remain so, and how additional adverse impacts to land and water resources may affect those species. Please provide data on fish and wildlife impacts in the FEIS. Also, please consult with the U.S. Fish and Wildlife Service regarding species listed under the Endangered Species Act and consult informally with FWS and Wyoming Fish and Game regarding all fish and wildlife impacts.

Response: RFO uses the best available wildlife data (in cooperation with the WGFD); these data are collected by RFO and WGFD wildlife biologists and are kept current when new information becomes available. In addition, BLM retains a GIS wildlife data layer to record data at a landscape scale. As noted, the RMP FEIS is a broad-scale planning document; projects contained under this umbrella document will be analyzed on a more site-specific basis for wildlife impacts.

Comment: Evaluation of existing wildlife populations or trends is provided in the DEIS/RMP only for T&E species (in the Biological Assessment). However, adverse impacts - direct, indirect, and cumulative - are not quantified and cumulative impacts are stated to be “not known.” There is inadequate information to evaluate existing habitat and other fish and wildlife needs. This information is essential for the public and decision-makers to assess management direction and other decisions that protect fish and wildlife.

Response: The Biological Assessment only addresses management and impact assessment for T&E species. The management actions for, and the impact analysis of, all other wildlife species are located in Chapters 2 and 4 of the RMP FEIS.

Comment: 2-56 Why are not anti-perching devices required on all structures under the preferred alternative? How can the lack of antiperching devices meet the goal of “protection” on white-tailed prairie dog habitat? The use of antiperching devices is specifically contemplated under IMs 2004-194 and 2004-110 Change 1 (see referenced website)

Response: The anti-raptor perching devices would be required on power lines within ¼ mile of white-tailed prairie dog towns; however, above-ground structures would not be equipped with antiraptor perching devices. The structures, such as fences or natural gas tanks, are lower in profile, and if a raptor builds a nest on these structures, then the BLM can move the nests to artificial nesting structures. Generally, these structures are located further away from the prairie dog towns and are lower in height. Strategic placement of artificial nesting structures reduces the birds’ ability to use the structure for hunting purposes.

Comment: Endangered and Sensitive Species Protections. We trust that a Section 7 Endangered Species Act consultation with the U.S. Fish and Wildlife Service and informal consultations with them and Wyoming Fish and Game will address whether proposed practices, such as distances to raptor nests and sage grouse leks, prohibition of specific activities during nesting period for sensitive birds, and so forth are adequate for those species' viability and protection. For example, the DEIS (page 4-222) indicates no disruptive activities will occur within 1,200 feet of active ferruginous hawk nests. We understand that FWS protocols indicate a radius of 1/2 mile is required to protect active ferruginous hawk nests. As part of formal and informal consultations with the wildlife agencies, please determine whether the proposed protections and non-disturbance provisions in the Preferred Alternative are adequate for all fish and wildlife.

Response: Thank you for your comment. The appropriateness of every mitigation measure will be determined through consultation and coordination with the differing agencies.

Comment: There is no quantified data and little qualitative information regarding the expected impacts on fish and wildlife. With the Preferred Alternative, there will likely be increased land disturbance, habitat fragmentation, noise disturbance, air emissions, potentially emissions of water pollutants, and other impacts. With minimal information about the magnitude of likely impacts to fish and wildlife, the public and decision-makers lack key information to determine whether resources that currently are viable or protected will remain so, and how additional adverse impacts to land and water resources may affect those species. Please provide data on fish and wildlife impacts in the FEIS. We encourage the BLM to consult with the U.S. Fish and Wildlife Service regarding species listed under the Endangered Species Act and consult informally with FWS and Wyoming Fish and Game regarding all fish and wildlife impacts. BLM may also consider using GIS mapping to show collocated oil and gas development along with sensitive resources such as 3039(d) listed streams, important cultural resources, etc.

Response: RFO uses the best available wildlife data (in cooperation with the WGFD); these data are collected by RFO and WGFD wildlife biologists and are keeping up to date as possible. In addition, BLM retains a GIS wildlife data layer to record data at a landscape scale. As noted, the RMP FEIS is a broad-scale planning document; projects contained under this umbrella document will be analyzed on a more site-specific basis for wildlife impacts. The Biological Assessment, located on the Rawlins RMP website, and the BO, located in Appendix 14 in the RMP FEIS, identify management actions that will be implemented to reduce and/or remove potential and/or known environmental impacts to wildlife species.

Comment: Bighorn Sheep. Elsewhere in the Rocky Mountains there have been problems of disease transmission between domestic sheep and Rocky Mountain Bighorn Sheep. The DEIS did not mention domestic sheep grazing allotments or the potential for disease transmission to bighorn sheep. Please describe whether these are significant concerns with bighorn sheep in the RMPPA and, if so, what protections are proposed.

Response: Table 2-1, Detailed Comparison of Alternatives; Section 4.7, Livestock Grazing; and Section 4.19, Wildlife and Fish, describe potential impacts to bighorn sheep as a result of livestock grazing. Management of domestic sheep and goats would be in accordance with national BLM policy and with consideration of the recommendations of the Wyoming Bighorn/Domestic Sheep Interaction Working Group. In addition, Map 2-3 shows domestic sheep avoidance areas within the RMPPA.

Comment: On pg. A10-2, we do not support a BLM effort to identify and classify this list of species as "sensitive". The Endangered Species Act, ESA, does not contain a "sensitive species" classification, and it is inappropriate for the BLM to create a sensitive species list in addition to the requirements of the ESA.

Response: The State Director is authorized by the BLM 6840 manual to designate BLM sensitive species for the state under his or her jurisdiction.

Comment: 3-128 Mention is made of the Wyoming Partner's in Flight and Wyoming Bird Conservation Plan. Why has not BLM specifically committed to adopting the provisions of these efforts so as to better protect nongame species? We believe BLM should at least consider formally adopting or committing to these efforts in the RMP.

Response: The BLM maintains a partnership with these organizations and uses BMPs when applicable to protect, maintain, and enhance habitat for a diversity of species.

Comment: 3-128 Several areas are mentioned as being areas with concentrations of raptors. These would appear to be the raptor concentration areas (RCA) that are closed to leasing. Page 2-70. If this is the case, it should be made more clear these specific areas are closed to leasing, although provision should be made that if additional RCA are located in the future, they too will be closed to future leasing.

Response: The raptor concentration areas (RCA) would be open to oil and gas leasing in the RMP FEIS. Surface disturbing and disruptive activities would be intensively managed. Management actions such as these are designed to protect breeding and nesting raptors during sensitive time periods in their life history.

Comment: 3-130 Compliance with the Migratory Bird Treaty Act is mentioned. We believe BLM has not met its duties under the indicated Executive Order. Specifically, we find no evaluation of the effects of the agency actions contemplated in the RMP on migratory birds. We are specifically concerned about the effects of cell phone towers and other high profile structures. Livestock watering facilities without escape ramps and waste disposal pits at oil and gas wells are other facilities that cause bird mortality. Has BLM made any evaluation of the level of bird mortality being caused by these structures and facilities? Why or why not? We find no evaluation of this problem, or identification of means to reduce these forms of "take." For example, the RMP could easily commit to requiring that netting and maintenance of it will be required for all oil and gas disposal ponds before an APD will be approved. Will BLM do this? Why or why not?

Response: The BLM implements protective measures for neotropical migratory birds under the Migratory Bird Treaty Act for all proposed projects that are authorized on BLM-administered lands. Coordination occurs between the WGFD and the USFWS to ensure that compliance with the Act occurs and that stipulations and mitigation measures are implemented to ensure the protection of these birds.

Comment: The draft RMP fails to include language, which discloses that raptor, and sage-grouse timing stipulations could be modified or eliminated using exception, waiver, or modification criteria when appropriate surveys conclude no activity is occurring.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or USFWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests. If subsequent to lease insurance and the Authorized Officer determines that a modification or waiver of a lease term or stipulation is substantial, the modification or waiver is subject to public review for a 30-day period (43 CFR 3101.1-4).

Comment: 3-133. It is stated that the Little Snake and North Platte River valleys are areas where crucial winter range is generally in substandard condition. Because of this, BLM should provide for special management provisions in these areas. BLM has committed to adopting the Wyoming Game and Fish Department's policy relative to crucial winter ranges. In these areas it would appear that the standard means to meet this policy, restriction on oil and gas drilling between November 15 and April 15, is not sufficient to maintain or improve this crucial habitat. Thus, BLM should provide additional protections in these areas to meet its obligations to further the WGFD policy. Does BLM agree? Why or why not? For example, BLM could adopt a no surface occupancy leasing policy in these areas.

Response: Habitat in these areas is listed as fair to poor because of heavy use of plant communities and as a result of the shrublands being taken over by juniper woodlands. The BLM recognizes all big game crucial winter range as important habitat for these species and uses timing restrictions, as well as other identified BMPs, to protect these habitat types. Proposed protections for big game crucial winter ranges, parturition areas, and migration corridors are identified within the Wildlife and Fisheries section of Table 2-1. In addition to timing stipulations, RFO has established BMPs (Appendix 15 in the RMP FEIS) as additional protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitat, where surface disturbing and disruptive activities are authorized. Additional opportunities to manage the quality of big game crucial winter ranges and parturition areas will be identified and pursued in association with Standards and Guidelines assessments (the BLM's land health assessment), which are conducted at the watershed scale. Additionally, as big game movement corridors are identified, opportunities to decrease habitat fragmentation will be pursued.

Comment: Critical wildlife habitats—crucial winter range and birthing grounds—are not protected in this Draft BLM plan. The plan relies heavily on limiting development activity during certain times of the year—such as over the winter or in the spring when animals are birthing—reducing the protections for big game from a 4.5 month (November 15 to April 1) period to a 2.5 month period January 1 to March 15; A9-1 Evidence from other parts of Wyoming indicate that these kind of restrictions are not effective.

Response: The BLM applies mitigation measures that are founded on the best scientific information available, in coordination with other agencies, to protect a diversity of resources. The BLM manages a diversity of land uses and programs in coordination, both internally and externally, with other agencies, including the WGFD, the USFS, and the USFWS. The BLM works in coordination with the WGFD, as well as with other agencies, to minimize impacts to wildlife species, such as habitat fragmentation, by implementing BMPs, meeting Standards For Healthy Rangelands, implementing range improvement projects and vegetation treatments, and practicing forest health initiatives. In addition, the agencies work together cooperatively to protect, maintain, and enhance a diversity of wildlife habitat types.

Comment: 3-138 The discussion of consultation is somewhat abbreviated and should be modified to fully reflect BLM's duties. In particular, if a likely to adversely affect determination is made, formal consultation must occur. If a not likely to adversely affect determination is made, formal consultation is not required, however, the written concurrence of the Fish and Wildlife Service is required before this determination can be finalized. BLM should adopt the procedures provided for in the Fish and Wildlife Service's Endangered Species Consultation Handbook. Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act. March 1998. Will it do so? Why or why not?

Response: The Biological Assessment has been prepared in formal coordination with the FWS and is included in the FEIS. This document complies with the ESA using the appropriate conservation measures located in Appendix 14, Biological Opinion, which includes Conservation Measures of the FEIS. In addition, the Terms and Conditions located in the BO are followed to comply with both informal

conferencing and formal consultation with the USFWS for compliance with the ESA. The BLM and USFWS have consulted on the Biological Assessment early in the NEPA process, and the final Biological Assessment and BO will be included in the RMP FEIS (Appendix 14).

Comment: 3-138 More generally, BLM should more clearly describe the biological assessment and (presumably) the biological opinion that will be prepared for the actions undertaken pursuant to the RMP. As things stand in the draft EIS, the BA is somewhat divorced from the whole planning effort—it is not described in any detail in the draft EIS. One must go to BLM's website to review it, and it is extremely lengthy. Thus, again it is removed from the planning process as things stand now. For example, the effects determinations that have been made should be shown in the EIS, with a brief description of the basis for the determination. Furthermore, while it appears BLM will enter into consultation with the Fish and Wildlife Service, and seek a biological opinion, prior to approval of the RMP, that is not crystal clear. In our view BLM must enter into consultation prior to approval of the RMP, and receive the Fish and Wildlife Service's biological opinion on the action. Will it do so? Why or why not? Furthermore, BLM must commit to adopting the conservation measures, reasonable and prudent measures, etc. the Fish and Wildlife Service specifies in its biological opinion as specific terms and conditions for all actions undertaken pursuant to the RMP. Will it do so? Why or why not? While it appears Appendix 14 is a start toward adopting conservation measures for the protection of listed species, that is not really made clear. Moreover, Appendix 14 would appear to only be based on the BLM's BA; what is needed are conservation measures approved of by the Fish and Wildlife Service. Will the BLM seek the Fish and Wildlife Service's recommendations for conservation measures for listed species (whether adversely affected or not)? Will it adopt those measures? Why or why not? We believe it should. Furthermore, the conservation measures need to be explicitly made applicable to the various species. That is not currently the case. See, e.g., pages 2-73 to 75 (Appendix 14 is not mentioned as a requirement for protecting listed species, and a number of listed species are not even mentioned).

Response: The Biological Assessment has been prepared in formal coordination with the USFWS and is included in the FEIS. This document complies with the ESA using the appropriate conservation measures located in Appendix 14, Biological Opinion, which includes Conservation Measures of the FEIS. In addition, the Terms and Conditions located in the BO are followed to comply with both informal conferencing and formal consultation with the USFWS for compliance with the ESA. The BLM and USFWS have consulted on the Biological Assessment early in the NEPA process, and the final Biological Assessment and BO will be included in the RMP FEIS (Appendix 14).

Comment: 2-57 We support the prohibition on poisoning of white-tailed prairie dogs. Why is this same prohibition not required relative to black-tailed prairie dogs? They too are highly imperiled. (We would note this is a specific instance of BLM engaging in wildlife management, something it claims it cannot do, and as noted above, a view we urge BLM to abandon so that alternative wildlife management options can be fully evaluated.)

Response: The white-tailed prairie dog potential ACEC only describes actions for white-tailed prairie dogs within the proposed ACEC. Table 2-1, Detailed Comparison of Alternatives, Wildlife and Fisheries, Species Listed on the BLM Wyoming State Director's Sensitive Species List includes a management action to prohibit poisoning of both white-tailed and black-tailed prairie dogs.

Comment: Not only sagebrush height and density but also understory grass cover are important to maintain in sage grouse nesting areas. [this should be reflected in the RMP]

Response: Understory grass cover is a key component of sage-grouse nesting habitat (see Section 3.19, Wildlife and Fish, and Section 4.19, Wildlife and Fish). Incorporation of specific habitat requirements into conservation planning efforts at the local level will enable a more holistic habitat management

approach. These conservation planning efforts are currently underway in cooperation with federal, state, and local governments as well as with local landowners and industry representatives.

Comment: Management for sage grouse should include special emphasis on protecting wet meadows, springs, and seeps.

Response: The management and protection of riparian/wetland areas has been a priority for the BLM under the previous land use plan and remains so under this RMP. See the Water Quality, Watershed and Soils section in Table 2-1 for specific management actions to be taken within riparian/wetland areas.

Comment: It is important to foster sagebrush growth at levels useful to sage grouse and to avoid activities that destroy suitable sagebrush habitat.

Response: Suitable sagebrush habitat is of importance to sage-grouse, as well as to a variety of sagebrush-obligate species. See Table 2-1 for specific mitigation measures designed to protect sage-grouse habitat.

Comment: 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.

Response: Surface disturbing and disruptive activities would be prohibited within ¼ mile of leks under the Proposed Plan.

Comment: To ensure the viability of sage grouse populations, it is important to consider nesting, brood-rearing, and winter habitats (Call and Maser 1985). Connelly et al. (2000) proposed comprehensive guidelines regarding the management of sage grouse, focused around the conservation of breeding/nesting habitat, late summer brood-rearing habitat, and wintering habitat. We recommend that the alternatives in the Draft EIS be modified so that these guidelines be implemented in the forthcoming RMP, with the modification of a 3-mile NSO and no surface disturbance/vegetation treatment buffer for sage grouse leks in order to protect the leks themselves as well as adjacent nesting habitat.

Response: The work of Connelly et al. (2000) has been a key component of the BLM National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan, along with other pertinent scientific information. These works, as well as knowledge of local resource conditions and sage-grouse behavior, have guided the development of sage-grouse protections proposed within the RMP.

Comment: None of the four alternatives provides the most basic protections for sage grouse as outlined by Connelly et al. (2000).

Response: The work of Connelly et al. (2000) has been a key component of the BLM National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan. These works, as well as knowledge of local resource conditions and sage-grouse behavior, have guided the development of sage-grouse protections proposed within the RMP.

Comment: The DEIS does not present a comprehensive management strategy for protecting Sage-grouse and their habitat. For example, the DEIS presents a strategy to allow future use of areas that contain “unsuitable” nesting habitats, but that are within the two-mile lek-center buffers, but to off-set these impacts by identifying suitable nesting habitats outside of the two-mile lek-center buffers. This will cause severely fragmented habitats, and EPA believes this would not result in a healthy or stable habitat for maintenance of the species. EPA believes that the cooperation by federal land managers is critical in the

protection of the species, especially since the species is in serious decline and is not offered protection under the Endangered Species Act. EPA recommends a comprehensive strategy be developed to include coordination with FWS and state wildlife biologists to focus on identification and mapping of current lek-centers and corresponding two-mile buffers, suitable and unsuitable habitat outside of the buffers, and suitable and unsuitable habitat inside the buffers. EPA prefers that rather than promoting oil and gas development on habitats that may be degraded and within the two-mile buffers, that the plan includes restoration of these degraded or unsuitable habitats within these buffers.

Response: Cooperator efforts will be vital to the continued existence of healthy sage-grouse populations. For this reason, along with others, the BLM is currently involved in a collaborative effort to design and implement a local conservation strategy for sage-grouse in south-central Wyoming.

Comment: Volume 1, Page 3-142, Section 3.19.3.4: The habitat management for the Greater sage-grouse does not appear adequate to protect the species. The FEIS should include the decision by the FWS Administrator that the best solution for conserving the Greater sage-grouse is for federal agencies to continue to support cooperative efforts to conserve and restore the Greater sage-grouse habitat. EPA recommends that the BLM coordinate with FWS to develop a specific conservation assessment and strategy plan to achieve the mitigation necessary for the protection and restoration of the Greater-sage grouse habitat.

Response: Cooperative efforts are the best way to manage sage-grouse and their habitat. Work is currently underway by a cooperative team, including representatives from federal, state, and local governments as well as private individuals and representatives of industry, to create a local conservation strategy for sage-grouse in south-central Wyoming. When this effort is completed, its implementation will not be hindered by the lack of its inclusion within this RMP.

Comment: “Substantially lower consumption of forbs and invertebrates and increased reliance on sagebrush may affect chick growth and survival, which would be reflected in long-term differences in productivity between areas. Insects are a critical nutrition source for developing chicks” (p. 93). Dunn and Braun (1986) argued that meadows, as important forb-producing areas, should be preserved. Thus, the BLM should manage sage grouse brood-rearing habitat to maximize high-quality forage for chicks.

Response: The management and protection of riparian/wetland areas has been a priority for the BLM under the previous land use plan and remains so under this RMP. See the Water Quality, Watershed and Soils section in Table 2-1 for specific management actions to be taken within riparian/wetland areas.

Comment: We believe that a moratorium on surface disturbing activities in the crucial habitats of BLM Sensitive Species is a very wise decision (See DEIS at 2-75), and should be implemented in the final Rawlins RMP. These crucial habitats should be mapped and presented in the Final EIS or Supplemental Draft EIS.

Response: Surface disturbing activities would be intensively managed to minimize impacts on identified crucial habitat for sensitive species, for the protection of these species and their associated habitat. These protection measures identified in the Proposed Plan will provide appropriate protection for Special Status Species. BLM sensitive species mapping will be used for project-level planning.

Comment: We are baffled by the BLM’s proposal to limit the use of bison as livestock in some alternatives. Bison are the native grazers in the RRMPA, and therefore would be expected to be more compatible with the sagebrush ecosystems in which they evolved. We do not recommend limitations of the use of bison as livestock; indeed, this may be preferable to domestic sheep and cattle

Response: The conversion of cattle or sheep to bison in areas of blocked federal ownership has purposefully been avoided because of public safety and access issues and probable conflicts with other users of the public lands.

Comment: Golden eagles, their nests and young are strictly protected under the Bald Eagle Protection Act, 16 USC § 668(a)-(d). This species is very popular with the wildlife viewing public, and conversely has historically suffered from shooting as well as poisoning directed at terrestrial predators. The maintenance of viable golden eagle populations should be an important consideration in the new RMP. Conservation efforts should focus on protecting nest sites and important foraging areas, such as prairie dog colonies.

Response: Golden eagle nests are protected, where applicable, as an active raptor nest. Prairie dogs and their habitat are also protected by the 6840 manual as a BLM sensitive species.

Comment: Bighorn sheep populations of current concern to the undersigned groups include the Encampment River herd, Douglas Creek (Platte River) herd, Laramie Range populations, and the reintroduced population that ranges the Ferris Mountains and surrounding areas. Each of these populations should be granted the protection of remaining isolated from domestic sheep herds, which are known vectors of disease transmission. See Attachment 15.

Response: Table 2-1, Management Actions Common to All Alternatives, states that management of domestic sheep and goats would be in accordance with national BLM policy and considers the recommendations of the Wyoming Bighorn/Domestic Sheep Interaction Working Group. Map 2-3 shows domestic sheep avoidance areas.

Comment: In its Cumulative Impacts Analysis, BLM notes, “Effects could result in habitat fragmentation and animal displacement (short term and long term), depending on the amount, location, and timing of activities.” DEIS at 4-265. BLM should provide some sort of quantitative and geographic description of the magnitude and location of these impacts, and their population-level consequences. It is a known fact that disturbance from human activity causes an increase in energy expenditure for game animals, and experts have recommended a moratorium on human activity in winter range areas (see, e.g., Parker et al. 1984).

Response: The BLM analyses specific actions for direct, indirect, and cumulative impacts to wildlife species at the EIS, EA, and site-specific level. There are different types of impacts that have the potential to occur at these different levels to different species, and it is a difficult process to assess these impacts. The statement that the BLM made reflects the difficulty of identifying exact impacts to species at the RMP level. It just notes that impacts have the potential to occur and will be addressed at the site-specific level.

Comment: The DEIS indicates that the RMPPA-wide and the statewide guidance restricts exploration within 2 miles of a lek-center and includes a timing stipulation intended to protect breeding, nesting, and wintering birds. As stated, approximately 40 percent of the nesting birds are not protected under the current timing stipulation. It is not evident that the current RMPPA-wide guidance meets the objectives for protecting this species. EPA recommends that the RMPPA-wide timing aspect be re-evaluated and modified to decrease the percentage of nesting birds to be impacted and incorporate this critical aspect into the above-mentioned conservation assessment and strategy plan.

Response: Once nesting and brood-rearing habitat has been identified, RFO will use the nesting and brood-rearing habitat boundaries even if they are outside of the 2-mile lek timing buffer. Until such time

as the strategies change, RFO and BLM are currently using these requirements as the best available scientific evidence to protect grouse (Holloran 2005).

Comment: Abstract: It is stated the plan focuses on eight issues, none of which include wildlife in general (special status species are included). Why is wildlife in general not included? Does BLM agree or disagree that wildlife that is not of special status, such as deer and pronghorn, are of tremendous value and interest to the citizens of Wyoming and of the U.S. generally? If BLM agrees these species are of great value, it should make a focus of the plan wildlife in general.

Response: General wildlife, such as deer and pronghorn, fall under the jurisdiction of the State of Wyoming, i.e., the WGFD. BLM works in coordination with the WGFD to protect wildlife habitat and to maintain general wildlife. Section 3.19, Wildlife and Fish, identifies potential and known species and habitat within the RMP FEIS area, and Section 4.19, Wildlife and Fish, discusses potential impacts from authorizing activities within these habitat areas.

Comment: ES-6 (see also 2- 27) It is stated that new fences “would be authorized to BLM standards.” Do BLM standards meet the standards for “wildlife friendly” fences developed by the Wyoming Game and Fish Department? They should, and BLM should ensure this is the case or provide an explanation of why the State's standards will not be applied.

Response: Table 2-1, Detailed Comparison of Alternatives, Wildlife and Fisheries, identifies potential fence management. BLM Manual Handbook H-1741-1 Fences and the supplement (2003), which includes Installation of Electric Fences, will be used, and these fence standards were developed in coordination with the WGFD.

Comment: DEIS at 4-57. All three of these Impact Significance Criteria require that a spatially explicit layout of wells, roads, and pipelines be presented as a prerequisite to any analysis of impact significance. BLM’s failure to provide spatially explicit locations for these impacts prevents the agency from assessing their magnitude, reducing the environmental analysis to mere guesswork.

Response: The RMP is the highest level of decisionmaking documents, and Section 1.3, Overview of the BLM Planning Process, describes this process. Any more detail than what is expressed in the RMP would be addressed at the site-specific project in an EA or EIS. Furthermore, BLM does not have spatially explicit locations until a project is proposed.

Comment: The BLM’s impact analysis makes no mention of the potential impacts of permitted actions on sage grouse population viability.

Response: Currently, management of sage-grouse in the RMPPA is guided by BLM National Sage-Grouse Strategy and Wyoming Greater Sage-Grouse Conservation Plan, as is reflected in the mitigations proposed in the RMP FEIS. Additional consideration of local trends in populations and habitat of sage-grouse (i.e., population viability analyses) would be better suited for local or range-wide conservation planning efforts, which are currently underway. Implementation of additional conservation actions from local planning efforts will not be hindered by the finalization of this RMP.

Comment: Thus, the measures in the Preferred Alternative are essentially identical to those implemented in Continental Divide – Wamsutter II, which resulted in the virtual extinction of sage grouse within the project area south of the Interstate. And the BLM find itself trapped in a cycle of making the same mistakes over and over again, instead of learning from the results of its monitoring. Indeed, the BLM has chosen to implement the identical mitigation measures that failed to maintain a single active sage grouse lek south of the Interstate throughout the planning area, which has essentially the same habitat attributes.

An in addition to failing to implement the recommendations of scientific experts, the BLM has failed to even rigorously explore and objectively evaluate these recommendations as an alternative course of action. The BLM's callous disregard for NEPA's range of alternatives requirement in this matter is appalling.

Response: Since 2000, BLM and WGFD data from lek surveys show that 8 of the 13 total leks in the two EIS areas continue to be active. Currently, management of sage-grouse in the RMPPA is guided by BLM National Sage-Grouse Strategy and Wyoming Greater Sage-Grouse Conservation Plan, as is reflected in the mitigations proposed in the RMP FEIS. Additional consideration of local trends in populations and habitat of sage-grouse will take place within local conservation planning efforts, which are currently underway. Implementation of additional conservation actions from local planning efforts will not be hindered by the finalization of this RMP.

Comment: The preferred alternative will allow surface mining for coal on crucial big game winter range as long as "appropriate mining methods" achieve a "long-term balance between habitat and coal development." DEIS at A2-13. That statement is meaningless and provides no adequate protection for these important habitats. Coal mining also will be permitted as close as 1/4 mile from sage grouse leks. DEIS at A2-14. Thousands of acres of crucial winter range and known sage grouse breeding and nesting areas are contained within tracts identified in the DEIS as eligible for surface mining. See DEIS at A2-13. Big game and sage grouse populations will not be sustained if these habitats are strip-mined.[footnote 35]

Response: There are habitat areas that were determined to be suitable for coal leasing and related surface operations and impacts, but will be subject to special restrictions and/or mitigation requirements. This is the first step in the coal screening process, and additional analysis will be required if a proposal is requested.

Comment: We support the lease stipulations of Appendix 16 prohibiting surface disturbance within 1/2 mile of mountain plover concentration areas. However, we are concerned that these measures will be applied only to new leases. All mountain plover nesting areas should receive these protections in order to avoid the necessity of listing the species pursuant to the Endangered Species Act.

Response: Appendix 16, Mountain Plover Stipulations: Occupied Habitat Protection Measures, states that proposed and existing facilities will be moved 1/2 mile from identified concentration areas. This will occur for projects that require this type of action to reduce and/or eliminate impacts to these habitat types.

Comment: Standardized line transects in identified winter use areas should be established and annually sampled (using aircraft) following current sampling theory to estimate changes in numbers of birds present. Sampling should immediately follow fresh snowfall or during maximum snow accumulation.

Response: The use of statistically valid monitoring approaches will be a vital component of conservation planning efforts for sage-grouse.

Comment: The agency made a commitment to use "all methods and procedures which are necessary to improve the condition of special status species and their habitats to a point where their special status recognition is no longer warranted." BLM Manual 6840 at .01. Pursuant to BLM policy, "[l]and use plans shall be sufficiently detailed to identify and resolve significant land use conflicts with special status species without deferring conflict resolution to implementation-level planning." *Id.* at .21J. The preferred alternative identified in the DEIS fails to meet these commitments.

Response: All projects are field checked and analyzed to determine potential and/or known habitat, as well as potential impacts from proposed projects to both habitat and species, for a variety of wildlife

species, including BLM sensitive species, as well as endangered, threatened, proposed and candidate species. BLM manual 6840 provides management actions to reduce and/or eliminate potential impacts to these species as a result of authorizing and implementing proposed actions. In addition, BLM consults with other agencies to further identify mitigation measures that may be required to reduce impacts to species and their associated habitat.

Comment: [Adobe Town] a portion of Area C of BLM’s inventory (hand-labeled “G” in Attachment 16 at p. 3) that were not considered by BLM as “wilderness quality” because the agency drew unit boundaries to actually include high-standard gravel roads and existing gas wells, rather than excluding them as did the original BCA citizen inventory (Clair 2002). These same wells and roads were then used as a pretext for disqualifying the unit, even though these units contained large expanses of wilderness-quality land immediately adjacent to the Adobe Town WSA and separated by a boundary that exists on a map. This violates direction in BLM’s Wilderness Inventory Study Procedures in full force and effect at the time of the inventory,

Response: The Handbook H-6310 cited was rescinded per IM-2003-195. Under the current criteria for wilderness characteristics, found in Instruction Memorandum No. 2003-275-Change 1, Consideration of Wilderness Characteristics in Land Use Planning, Attachment 1, the Adobe Town fringe areas included in the Citizens’ Proposal for Wilderness, regardless of boundaries, do not possess wilderness characteristics. Neither cherry-stems nor washes (as boundaries or included within the area of consideration) would change this conclusion. BLM has no mandate to manage for roadlessness.

Comment: Nothing in the plan restricts the total amount of these Sensitive wildlife habitats that can be converted to industrialized landscapes. The policy of allowing the industry to nominate and then lease and develop lands helter-skelter across the entire Resource Area should be abandoned. Instead, the revised RMP should call for staged development in which some blocks of lands are open to leasing and some are temporarily withdrawn from leasing and development until a later time.[footnote 21]

Response: BLM is a multiple-use agency and strives to achieve a balance between uses of the land, while minimizing the adverse impacts to other resources. The Proposed Alternative states that surface disturbing activities would be intensively managed and would be subject to reclamation practices and stipulations to protect resource values. The lease stipulations include, but are not limited to, seasonal restrictions, NSOs, and closures to protect wildlife and habitat during critical time periods. Appendix 1, Wyoming Bureau of Land Management (BLM) Mitigation Guidelines for Surface Disturbing and Disruptive Activities; Appendix 11, Water Quality and Watershed Management Within the RMPPA; Appendix 14, Biological Opinion; Appendix 15, Best Management Practices for Reducing Surface Disturbance and Disruptive Activities; Appendix 16, Mountain Plover Best Management Practices; Appendix 17, Monitoring and Evaluation; Appendix 18, Compensation (Offsite) Mitigation; Appendix 20, Oil and Gas Operations; Appendix 24, Mitigation Guidelines for Special Status Plants; Appendix 26, Road Management and Closures in Sensitive Habitat Areas; Appendix 31, RFO Noxious Weed Prevention Plan; Appendix 32, Hazard Management and Resource Restoration Program; and Appendix 36, Reclamation Plan, all provide mitigation measures to remove and/or reduce impacts to wildlife and associated habitat as a result of implementing proposed projects on BLM lands.

Comment: Finally, in the two years since BLM began preparing this document, there have been some changes in the regulatory landscape at the state level. 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 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.[footnote 3] No mention of those guidelines is made in the DEIS. We believe that the State of Wyoming and its citizens deserve an explanation for why BLM ignored the recommendations of the Wyoming Game and Fish

Commission regarding protection of crucial big game habitats. The State is a cooperating agency for purposes of this planning process; the expertise of its 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. The final revised RMP should reflect the State of Wyoming's "no net loss" standard and its minimum recommendations for crucial habitat conservation.

Response: Section 5.1.1, Cooperating Agencies, includes the State of Wyoming and the WGFD as cooperators on the Rawlins RMP, and their comments, plans, and policies are taken into consideration.

Comment: Fences may restrict pronghorn traveling from deep snow areas to sites where forage is more readily available—thereby becoming a man-made facility contributing to pronghorn mortality. We note you have several pages devoted to this subject in the revised RMP, however we believe that it does not adequately cover this potential man-made mortality factor and recommend more specific management strategies be included in the final RMP. Fences should be constructed according to site specific needs identified in the recommended three references cited earlier in this report. With the advent of high tensile wire electric fences, some consideration should be given to their incorporation where practicable, or at least tried in several test areas.

Response: The BLM uses a diversity of conservation measures when constructing fences for the protection of wildlife species, specifically big game species. The use of high tensile electric fences has been implemented, which reduces impacts to migrating big game. The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species from all activities authorized on federal lands, including activities located within pronghorn seasonal ranges and migration corridors. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Seasonal stipulations can be used to reduce impacts from both surface disturbing activities and also disruptive activities. The BLM considers WGFD guidelines and recommendations to reduce impacts where needed.

Comment: By prefacing the impact analysis for the proposed white-tailed prairie dog area by stating, "Management actions would be designed to minimize conflicts with adjacent landowners and enhance the natural resource values of the area to meet management objectives" (p. 4-155) The BLM conjures up the current black-tailed prairie dog management situation in South Dakota where massive poisoning on federal lands is taking place at the request of adjacent landowners. This is a bad way to start.

Response: The statement located in Section 4.13.18.1, Impacts Common to All Alternatives, describes the BLM management actions that minimize conflicts with adjacent landowners and protect natural resource values in an area, including white-tailed prairie dog habitat. It continues to explain that surface disturbing activities on private lands are not subject to the same restrictions and stipulations as those required on federal lands but does not discuss massive poisoning practices.

Comment: Moderate density pronghorn populations on grasslands and desert environs are associated with available free water for drinking every two miles—criteria similar to livestock management. Because not all water development projects designed for livestock properly provide drinking water for pronghorn and other wildlife, we urge you to note water development specifications that can serve both wildlife and livestock. Because the majority of water developments constructed on western rangelands are accomplished with the primary objective of enhancing water for livestock, it is important to evaluate how these projects affect wildlife.

Response: Water projects that are implemented on federal lands are designed with wildlife values in mind and provide resources for a diversity of species, including available free water.

Comment: Because forbs and shrubs are not generally managed for forage for bison and livestock, the values of these forage classes need to be recognized and incorporated in rangeland management plans for the needs of wildlife.

Response: The values of forbs and shrubs are taken into account in rangeland management plans. The Healthy Rangelands Standards does consider wildlife habitat under Appendix 8, Monitoring Methods to Assess Standards and Guidelines for Healthy Rangelands. Please refer to Appendix 8, page A8-3.

Comment: BLM's preferred alternative for management of the Rawlins Resource Area makes nearly all of the significant sage grouse habitat available to new leasing.[footnote 32] Compare DEIS Maps 2-38 and 3-13 It then defers resolution of the recognized conflicts between oil and gas development and sage grouse conservation to case-by-case determinations of the requisite mitigation at the Application for Permit to Drill (APD) stage.[footnote 33] DEIS at 4-242. Moreover, the mitigation measures imposed on oil and gas development discussed in the DEIS are inadequate to prevent the downward trend of sage grouse populations in the planning area.[footnote 34] See comments submitted by Clait E. Braun; see also comments submitted by the Wyoming Game and Fish Department at 19. This does not meet FLPMA's standards for BLM land use plans and is not acceptable, in particular, under BLM's guidelines for management of sensitive species.

Response: Efforts are currently underway to map nesting and wintering habitat for sage-grouse at broad scales. Until this information is available, site-specific analysis of habitat conditions will remain necessary to ensure that adequate protections for sage-grouse are applied to individual projects. Incorporation of landscape-scale vegetation mapping into local conservation planning efforts should enable a more holistic approach to habitat management for sage-grouse in the future.

Comment: The number of active sage grouse leks can be a useful index of sage grouse population trends (Emmons and Braun 1984). Autenreith et al. (1982) provide a sound monitoring protocol which the BLM should adopt to monitor sage-grouse trends. Aerial lek surveys should be undertaken each spring to determine presence/absence of grouse on known lek sites and to locate new lek sites, and a subset of leks should be censused at regular intervals at dawn throughout the breeding season to gain an index of population trend. It is important to note that the number of grouse at a lek site can vary greatly from day to day (Beck and Braun 1980), so repeat censuses will be needed to establish a mean value. Emmons and Braun (1984) pointed out that timing of lek counts may affect number of grouse observed, as lek attendance is not constant and males commonly move between leks. These researchers recommended that four separate lek counts be taken for each lek, about 10 days apart. Brood counts should be undertaken 11-13 weeks after the peak of hatch using chick distress calls, and average number of chicks per hen should be derived, using both successful and nullparous hens.

Response: RFO & WGFD biologists monitor leks each year for activity. Selected leks are targeted for intensive "count monitoring" to gain statistical trends over time.

Comment: THE DRAFT EIS IS ABSENT A BIOLOGICAL ASSESSMENT, WHICH SHOULD HAVE BEEN PRESENTED FOR PUBLIC REVIEW The Draft EIS lacks a Biological Assessment, which would perhaps provide a great deal of analysis valuable to the public, which deserves to be presented with all the relevant information in order to make an informed comment on the proposed Rawlins RMP Alternatives, and which also might in some small way remedy some of the deficiencies in BLM's own analysis on wildlife and particularly rare and threatened species. The absence of a BA in this document is

further evidence that BLM has rushed itself through the Draft EIS process without taking adequate time to undertake the requisite analyses required by NEPA and other federal regulation

Response: The Biological Assessment is located on the Rawlins RMP website. The BO is located in Appendix 14, Biological Opinion, in the RMP FEIS.

Comment: Wind turbines also have the direct impact of killing birds (particularly raptors), and to an even greater extent, bats (including Forest Service and WGFD Sensitive Species). This mortality has been documented in the monitoring reports for the Arlington/Foote Creek Rim wind turbine project, and we incorporate these monitoring reports into our comments by reference. With this in mind, wind turbine arrays should not be sited on mountain plover nesting areas, along raptor migration routes, and in localities with high bat concentrations.

Response: Appendix 17, Monitoring and Evaluation, of the FEIS describes monitoring and evaluation, which measures the effectiveness of existing actions through monitoring and application of new scientific research, including that for the raptors, mountain plover, and bat species. Monitoring and evaluation analyze current resource conditions as a result of implemented actions and identify and recommend alternatives or modified action when required. Appendix 16, Mountain Plover Stipulations: Occupied Habitat Protection Measures, provides further protection for this species.

Comment: Some raptors, notably golden eagles and ferruginous hawks, preferentially nest on “highwalls” created in open-pit mine sites, causing nests to be destroyed or relocated (sometimes resulting in nest abandonment) as coal and/or overburden is removed (Parrish et al. 1994). Thus, strip mining should not be allowed within one mile of raptor nests.

Response: Coal mining activities are regulated under 50CFR and take into account the need to possibly relocate raptor nests from high walls in areas actively being mined. This is completed in coordination and consultation with the USFWS.

Comment: ES-14 Mountain Plover. “potential habitat” protected by prohibiting surface disturbance and other activities April 10 to July 10 (breeding and nesting). Previously this restriction had been based on identified Mountain Plover habitat and conditioned by use of the habitat by plovers. Recommendation: The language should revert to the language in the FWS plover guidelines.

Response: The timing stipulation identified in the FEIS for the mountain plover breeding and nesting periods has been determined to be appropriate for protection of this bird during this sensitive time period. This time period was identified in coordination with the USFWS and WGFD.

Comment: The last sentence (line 8) states “Surface disturbing or other activities potentially disruptive to Sage Grouse would be avoided in identified nesting and early brood rearing habitat between March 14 and July 15.” This very broad statement does not have scientific justification as it does not attempt to limit the seasonal restriction to habitats actually associated with an active lek or being used by hen sage grouse. Recommendation: “Nesting and early brood rearing habitat” is broadly defined in the draft RMP, BLM IM and the statewide plan. This broad definition was not intended to be used to preclude activity in sagebrush ecosystems not being used by sage grouse.

Response: Mapping of nesting and early brood-rearing habitat for sage-grouse is currently underway. Once this information is available, it will be used to guide the application of appropriate stipulations and mitigations.

Comment: The current timing stipulation for nesting sage-grouse is avoidance of the area within a 2-mile radius of a lek from March 15 to June 30. What is the justification for the extended time line through July 15? Recommendation: The draft RMP should state that sage-grouse timing stipulations can be modified or eliminated using exception, waiver, or modification criteria when appropriate surveys conclude no activity is occurring.

Response: Appendix 9, Exception, Modification, and Waiver Criteria, identifies procedures for handling requests for exceptions from seasonal stipulations and/or COAs. The timing stipulation data for greater sage-grouse have been extended based on local knowledge of sage-grouse nesting and brood-rearing timing.

Comment: Oil and gas development also has potentially significant effects on raptors and other avian predators. 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). Oil and gas development also creates nesting structures for ravens, which are an important nest predator on sagebrush bird species (Ingelfinger 2001).

Response: Appendix 17, Monitoring and Evaluation, of the FEIS describes the process of monitoring and evaluation, which measures the effectiveness of existing actions through monitoring and application of new scientific research, including that for raptors. The monitoring and evaluation process analyzes current resource conditions as a result of implemented actions and identifies and recommends alternatives or modified action when required. This process provides the optimum means to check the effectiveness of management actions and will vary from year to year based on needs. In addition, Appendix 14, Biological Opinion, and Appendix 15, Best Management Practices for Reducing Surface Disturbance and Disruptive Activities, provide additional protection measures for raptor species.

Comment: Coalbed methane development has even greater impacts on sage grouse. According to Braun et al. (in press), "Impacts to sage grouse from CBM development include direct loss of habitats from all production activities along with indirect effects from new powerlines and significantly higher amounts of human activity, both during initial development and during production." For leks within 0.25 mile of coalbed methane facilities, significant reductions in males/lek and rate of growth, presence of overhead power lines within 0.25 mile of a lek also depressed sage grouse population growth, and compressor stations within 1 mile of a lek significantly reduced sage grouse numbers (Ibid.).

Response: RFO does not allow activity within the ¼-mile lek buffer. As noted previously, the ¼-mile buffer is consistent with BLM's National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan, and when the local Sage-Grouse Working Group's plan becomes available, the strategies in this document will be implemented for grouse protection as well. Around known lek sites, the National Sage-Grouse Strategy uses ¼-mile NSO as the best available scientific information available to protect nesting grouse; currently the RFO follows these guidelines. RFO is currently proposing changing this from ¼-mile protection from the lek center, to ¼ mile around the lek perimeter, which will extend the protective NSO. In addition, once nesting and brood-rearing habitat has been identified, RFO will use the nesting and brood-rearing habitat boundaries even if they are outside of the 2-mile lek timing buffer. Until such time as the strategies change, RFO and BLM are currently using these requirements as the best available scientific evidence to protect grouse. Using BMPs—such as centralizing facilities, directional drilling, and no operations between the hours of 6 p.m. to 9 a.m.—RFO seeks to minimize impacts to grouse during the critical strutting and nesting season. RFO puts power lines in existing ROWs (with raptor antiperching devices in most cases, particularly around prairie dog towns) or buries the power lines. Power lines are not permitted within ¼ mile of lek areas. As noted, RFO and WGFD are still in the process of identifying nesting habitat. In the future, these areas (even if outside the 2-mile lek buffer) will

have seasonal timing stipulations placed on them. The potential exists that in the future, as development expands, BMPs (recommendations) may become COAs (required) for well development.

Comment: We specifically request the BLM to provide a map of overlapping crucial winter ranges in the final EIS, because the current Maps 2-53 to 56 make it very difficult to make this determination. If BLM is going to maintain this stipulation, it should provide a discussion and guidance as to what exactly constitutes an “acceptable plan” for mitigation. BLM should describe how this determination will be made and what opportunities will exist for public involvement in this determination. At a minimum, an acceptable plan must not allow unnecessary or undue degradation of the public lands, be in accordance with the Wyoming Game and Fish Mitigation Policy, and be in accordance with the new Wyoming Game and Fish guidelines on mitigating oil and gas development impacts to wildlife (citation provided below in the additional resources section).

Response: BLM recognizes all big game crucial winter range as important habitat for these species and uses timing restrictions, as well as other identified BMPs, to protect these habitat types. Proposed protections for big game crucial winter ranges, parturition areas, and migration corridors are identified within the Wildlife and Fisheries section of Table 2-1. In addition to timing stipulations, RFO has established BMPs, Appendix 15, Best Management Practices for Reducing Surface Disturbance and Disruptive Activities, as additional protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as sufficient to protect big game species and their habitat, where surface disturbing and disruptive activities are authorized. Additional opportunities to manage the quality of big game crucial winter ranges and parturition areas will be identified and pursued in association with Standards and Guidelines assessments (BLM’s land health assessment), which are conducted at the watershed scale. Additionally, as big game movement corridors are identified, opportunities to decrease habitat fragmentation will be pursued.

Comment: Mountain Plover Monitoring The BLM has historically mapped and surveyed for plover nesting areas on a catch-as-catch-can basis, limiting efforts to lands slated for imminent development projects. A broader and more comprehensive survey of nesting plovers by trained personnel is needed throughout the planning area.

Response: Appendix 17, Monitoring and Evaluation, of the FEIS describes the process of monitoring and evaluation, which measures the effectiveness of existing actions through monitoring and application of new scientific research, including that for the mountain plover. The monitoring and evaluation process analyze current resource conditions as a result of implemented actions and identify and recommend alternatives or modified action when required. This process provides the optimum means to check the effectiveness of management actions and will vary from year to year based on needs.

Comment: Alternative 3 provides the strongest management guidance on fences among alternatives (see DEIS at 2-27), but it is still not strong enough. Illegal fences must be removed as a standard in the new plan, and existing fences that are non-compliant with WGFD standards must be brought into compliance. There should be no new fence construction, illegal fences should be removed, and all remaining fences should at least conform to antelope passage requirements set forth by WGFD. Intensive grazing management systems should be achieved through active herding of livestock, rather than passively by permitting the construction of new fences.

Response: See updated text in Chapter 2; Table 2-1 discusses fence proposed actions. Existing fences that were constructed prior to the adoption of BLM Manual Handbook H-1741-1 Fences and the supplement (2003), which includes Installation of Electric Fences, will be modified, as wildlife concerns are identified or when they are reconstructed. New fences construction will be analyzed on a case-by-case basis, and impact to wildlife movement will be analyzed.

Comment: As a BLM Sensitive Species, annual monitoring efforts should be directed at burrowing owls to gain an index of population trend. Haug and Didiuk (1993) reported that 57% of burrowing owls responded to recorded calls in their study, and that the “tall and white” stance adopted in response to calls made detection easier. These researchers recommended a series of three surveys at 5-7 day intervals during the nesting season to monitor population trends. These monitoring protocols should be established as requirements under the new RMP.

Response: Appendix 17, Monitoring and Evaluation, of the FEIS describes the process of monitoring and evaluation, which measures the effectiveness of existing actions through monitoring and application of new scientific research, including that for the burrowing owl. The process of monitoring and evaluation analyzes current resource conditions as a result of implemented actions and identifies and recommend alternatives or modified action when required. This process provides the optimum means to check the effectiveness of management actions and will vary from year to year based on needs.

Comment: Currently, the most recent comprehensive data on prairie dog distribution is from the 1980s, prior to sylvatic plague outbreaks. Thus, this data cannot be considered adequate baseline data for the purposes of serving as a basis for a NEPA hard look at direct and cumulative impacts. New colony surveys are needed to determine where conservation efforts should be focused and which colony sites require restoration efforts. Forrest et al. (1985) admonished, “All prairie dog colonies should be accurately and consistently mapped” (p. 28). Martin and Schroeder (1979) noted that aerial photography failed to identify many active colonies; these researchers recommended winter photography after snowfall as providing the best visibility of prairie dog colonies. The new RMP should require surveys to determine the spatial extent as well as periodic sampling protocols to index population trends within the major colonies.

Response: The BLM wildlife biologists complete onsite visits for all proposed projects within the field office to identify and assess wildlife habitat, including habitat for BLM Wyoming State Director’s Sensitive Species Habitat List and T&E species. The evaluation allows the biologist to identify and determine stipulations and/or mitigation measures that may be required to reduce and/or eliminate potential impacts to species and their habitat, as a result of implementing proposed projects. Biologists identify habitat assessment techniques and requirements often in coordination with other agency biologists that may be used to aid in determining wildlife habitat analysis and impact assessment from proposed projects.

Comment: For neotropical birds, sage grouse, and raptors, a declining trend in habitat occupancy would trigger remedial action. DEIS at A17-9. It is unclear what this remedial action might entail or how it might be effective in mitigating for the impacts measured, as in many cases declines will have been caused by an inappropriate level of industrial development in key habitats. Will well be plugged and abandoned on a mandatory basis, and roads be closed and reclaimed? But the key question is, how will BLM know that there is a declining trend in habitat occupancy if the Rawlins RMP lacks sufficient monitoring requirements to generate the data needed for a year-to-year comparison?

Response: Appendix 17, Monitoring and Evaluation, of the FEIS describes the process of monitoring and evaluation, which measures the effectiveness of existing actions through monitoring and application of new scientific research. The monitoring and evaluation process analyzes current resource conditions as a result of implemented actions and identifies and recommends alternatives or modified action when required. This process provides the optimum means to check the effectiveness of management actions and will vary from year to year based on needs.

Comment: We also support the monitoring of aquatic macroinvertebrates (DEIS at A17-9). However, instead of the disappearance of macroinvertebrates that represent good water quality being the

triggerpoint for changed management, the triggerpoint would more appropriately be a declining trend in abundance and diversity.

Response: BLM has altered the text in Appendix 17 to consider changes in the abundance or diversity of macroinvertebrate species representing desirable water quality.

Comment: We support BLM's commitment to monitor population and trend data for Special Status Species, which we assume include Threatened, Endangered, Candidate, and Sensitive (Both BLM and WGFD) species. See DEIS at A17-6. Please inform us if we have misinterpreted the provisions of the monitoring policy that is slated for adoption under the new Rawlins RMP.

Response: Appendix 17 contains the process by which the BLM conducts monitoring and evaluation, which measures the effectiveness of existing actions through monitoring and application of new scientific research. The process of monitoring and evaluation analyzes current resource conditions as a result of implemented actions and identifies and recommends alternatives or modified action when required.

Comment: Communication facilities should be co-located with existing communication sites in the forthcoming Rawlins RMP, as under Alternative 3. In addition, powerlines and pipelines should also be co-located to the greatest extent possible. In no case should communication sites be permitted in currently unimpacted locations. In addition, communications sites and antenna structures will not be built in or adjacent to wildlife crucial winter ranges, crucial winter relief areas, and birthing areas, other Areas of Critical Environmental Concern as outlined in the Western Heritage Alternative, areas within 1 mile of active raptor nests, areas within 5 miles of active sage grouse or sharp-tailed grouse leks, large prairie dog colonies and complexes, or those inhabited by BLM Sensitive Species such as black-footed ferret, burrowing owl, mountain plover, or swift fox, and critical habitats of Endangered and Threatened species.

Response: Communication sites and power lines are generally co-located where existing facilities occur. There may be circumstances in which a facility will be required to be placed within sensitive wildlife habitat, and appropriate stipulations and mitigation measures will be implemented to reduce and/or eliminate impacts to the wildlife and their habitat.

Comment: Although powerlines can be designed to minimize impacts to raptors, these corridors should be sited more than 2 miles away from prairie dog colonies and sage grouse leks to prevent major impacts to these sensitive prey species.

Response: The 2-mile buffer provides adequate protection for nesting raptors. The action can be modified and the plan amended, if monitoring shows that this protection measure is not adequate.

Comment: BLM Handbook H-6310-1 at 8. This direction was provided to prevent BLM from disqualifying areas from wilderness if they are pristine and not separated by existing lands deemed to be of wilderness quality by a human intrusion. In the instant case, the excluded area was separated from the "wilderness quality" portion of Area C by the dry wash of Sand Creek, which is not a human intrusion that detracts from the wilderness qualities of adjacent lands (and thus cannot serve as a boundary). It also specifically violates specific direction stating, "A dead-end (cherry-stem) road can form the boundary of an inventory area, and does not by itself disqualify an area from being considered 'roadless.'" BLM Handbook H-6310-1 at 10, emphasis added.

Response: The Handbook H-6310 cited was rescinded per IM-2003-195. Under the current criteria for wilderness characteristics, found in Instruction Memorandum No. 2003-275-Change 1, Consideration of Wilderness Characteristics in Land Use Planning, Attachment 1, the Adobe Town fringe areas included in the Citizens' Proposal for Wilderness, regardless of boundaries, do not possess wilderness characteristics.

Neither cherry-stems nor washes (as boundaries or included within the area of consideration) would change this conclusion. BLM has no mandate to manage for roadlessness.

Comment: The states and the Service have more or less stated that the Wyoming BLM has not demonstrated that its regulatory mechanisms are adequate to prevent the extinction of this species, [white tailed prairie dog], and that RMP revision is key to changing this, yet the DEIS fails to adequately take a hard look at the impacts to white-tailed prairie dogs, abide by the BLM's sensitive species obligations, follow the BLM Manual's and FLPMA's guidance regarding ACECs, or take other steps that would change this situation.

Response: The BLM implements BLM Manual 6840, which protects white-tailed prairie dogs and their habitat during the assessment, authorization, and implementation of proposed projects. In addition, the BLM has added additional text that describes the life history of the white-tailed prairie dog in Section 3.19.3.3, White-Tailed Prairie Dog Habitat Management, in the RMP FEIS.

Comment: The cumulative impacts of all human-induced activities within a given, describable sage-grouse population unit should be studied over a period sufficiently long (20-30 years) to be able to predict actual long- and short-term effects. When industry is involved in causing the impacts, they should be expected to fully support, financially, all studies as they have the burden to demonstrate their activities are not negative to sage-grouse.

Response: BLM agrees that additional applied and long-term research will be necessary to identify biologically meaningful conservation strategies for sage-grouse. BLM is currently collaborating with industry representatives to conduct several applied research efforts. BLM hopes to continue to enhance this relationship to answer questions pertinent to each party.

Comment: Minimum of 1-mile buffers prohibiting surface disturbance should apply to ferruginous hawk nest sites as well as all other raptor nest sites.

Response: The BLM uses protection measures located in Table 2-10 to protect raptor species during the breeding and nesting season. There are both timing stipulations and distance stipulations that protect these birds during a critical time period in their life history. The 1-mile distance buffer associated with the ferruginous hawk, golden eagle, and bald eagle, and $\frac{3}{4}$ -mile distance buffer associated with all other raptors are based on research and the best available information and provide adequate protection.

Comment: 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 from vehicle traffic that does occur during the nesting period.

Response: The BLM uses protection measures located in Table 2-10 to protect raptor species during the breeding and nesting season. There are both timing stipulations and distance stipulations that protect these birds during a critical time period in their life history. These buffers are based on research and the best available information and provide adequate protection. Young raptors are successfully fledged based on monitoring, and if distances are not sufficient according to new research, then the BLM will modify the timing and/or distance stipulations to protect the breeding birds.

Comment: It is all well and good to prevent construction near nest sites while the hawks are present, but nests are used traditionally from year to year, and if a road or well site is constructed near a nest during

the off-season, that nest site will be rendered non-viable the following year when the hawks return to their nesting territory. In addition, ferruginous hawks use the same nest from year to year and also build alternate nests within the same territory (Smith and Murphy 1978). Thus, historic as well as active nests deserve a strong degree of protection for traffic-related surface disturbances. The BLM must emplace solid, year-round protections that prevent the construction of roads and well-sites, which will inherently receive regular vehicle traffic throughout their productive lifetimes, regardless of nesting seasons, within 1 mile of ferruginous hawk nests, both active and historic.

Response: The BLM uses protection measures located in Table 2-10 to protect raptor species during the breeding and nesting season. There are both timing stipulations and distance stipulations that protect these birds during a critical time period in their life history. These buffers are based on research and the best available information and provide adequate protection. Young raptors are successfully fledged based on monitoring, and if distances are not sufficient according to new research, then the BLM will modify the timing and/or distance stipulations to protect the breeding birds. All known nests are protected.

Comment: Well-designed research on the immediate and short-term effects of seismic activities on sage-grouse and their habitats should be funded and undertaken.

Response: BLM agrees that additional applied research will be necessary to identify biologically meaningful conservation strategies for sage-grouse.

Comment: 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 Great Divide; a more conservative approach is needed in order to safeguard raptor viability in 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.

Response: The BLM uses protection measures located in Table 2-10 to protect raptor species during the breeding and nesting season. There are both timing stipulations and distance stipulations that protect these birds during a critical time period in their life history. These buffers are based on research and the best available information and provide adequate protection. Young raptors are successfully fledged based on monitoring, and if distances are not sufficient according to new research, then the BLM will modify the timing and/or distance stipulations to protect the breeding birds. All known nests are protected, and mitigation measures are implemented to maintain and/or enhance habitat from proposed projects when identified.

Comment: Early chick survival has been identified as a problem in Wyoming. Enhancing the forb and grass component in nesting areas (which are also early brood rearing sites) should be a priority.

Response: Incorporation of specific habitat requirements into management objectives will be facilitated by the completion of local conservation strategies, which are being developed. Currently, the BLM

National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan guide management of habitat for sage-grouse within the RMPPA.

Comment: Nesting areas, since they are difficult to locate at a population or subpopulation scale, should be defined as all area within 3 miles of active leks. This will provide a minimum amount of protection. This is the minimum needed to maintain sage-grouse populations.

Response: Efforts are being made to map suitable nesting habitat, rather than relying upon an arbitrary buffer around sage-grouse leks. This mapping effort will extend beyond the 2-mile or 3-mile buffer to include all suitable nesting habitat.

Comment: Replicated long-term studies are urgently needed to understand the effects of grazing practices and habitat fragmentation on predator numbers and predation rates on sage-grouse. These studies must involve treatments and controls on a landscape basis.

Response: BLM agrees that additional applied and long-term research will be necessary to identify biologically meaningful conservation strategies for sage-grouse.

Comment: Habitat guidelines published by Connelly et al. (2000) should be incorporated into preparation of a “desired future condition” to be achieved to improve nest success and early chick sage-grouse survival. This is the minimum needed to enhance sage-grouse populations

Response: Incorporation of all pertinent information when conducting Standards and Guidelines assessments (BLM’s land health assessment) should identify opportunities to effectively manage sage-grouse habitat.

Comment: Research should be initiated to learn if monitoring of insect abundance and forb growth will reliably predict sage-grouse chick survival.

Response: BLM agrees that additional applied research will be necessary to identify biologically meaningful conservation strategies for sage-grouse.

Comment: Harvest data based on examination of sage-grouse wings collected from hunters should continue on a well-defined population basis. Statistics needed to measure responses of sage-grouse are those relating to nest success, chicks per hen, and age/gender composition. This is the minimum needed to monitor sage-grouse populations.

Response: Analysis of harvest data is performed by the WGFD. The use of statistically valid monitoring approaches will be a vital component of conservation planning efforts for sage-grouse.

Comment: Leks classified as active should be counted (number of cocks present) 3-4 times each spring at 7-10 day intervals starting in late March-early April and continuing into mid May. Those leks classified as inactive should be checked in late April/early May every 2-3 years to ascertain change in status. This is the minimum needed to monitor sage-grouse populations

Response: RFO and WGFD biologists monitor leks each year for activity. Selected leks are targeted for intensive count monitoring to gain statistical trends over time. There are roughly 500 leks within the field office area, which limits the number that available personnel can visit in a given season. The use of statistically valid monitoring approaches will be a vital component of conservation planning efforts for sage-grouse.

Comment: All potential mid to late summer brood-rearing areas should be mapped based on moisture and green forb availability during the late June through late August interval. Management of mid to late summer brood-rearing areas should encourage forb regrowth while maintaining at least a 6-inch residual grass height with taller (> 24 inches in height), live sagebrush of > 15% canopy cover in close (< 200 yds) proximity for use as escape cover.

Response: Incorporation of specific habitat requirements within local conservation planning efforts and implementation of conservation strategies through the use of Standards and Guidelines assessments (BLM's land health assessment) should ensure consideration of the suitability of habitat for sage-grouse.

Comment: The Draft EIS Fails to Take a Hard Look at Impacts to Birds of Prey The "Impacts Analysis" section on impacts to raptors of the Preferred Alternative is exactly one paragraph long, and is comprised entirely of a recitation of the mitigation measures in this alternative. The BLM makes no quantitative or qualitative assessment of the magnitude or nature of impacts to raptors that will arise as a consequence of activities or projects permitted under the Rawlins RMP. Likewise, the BLM makes no quantitative or qualitative assessment of the effectiveness of the mitigation measures it enumerates in lieu of an impacts analysis. This section does represent that mitigation measures would "reduce disturbance to most nesting raptors, increasing nest success." DEIS at 4-242. However, there is no baseline provided against which these putative reductions can be measured. Certainly, the 8,800 wells inherent to this alternative, with the mitigation measures proposed (the same ones as were in use under the original Great Divide RMP) will have an additive negative effect on the viability of raptor populations, versus the existing wells that are already there. Only the degree of the decline is in question. There is no discussion about what the impact on raptors of adding another 8,800 wells to the thousands already drilled in the Rawlins Field Office might be; it is our conclusion that this impact will undoubtedly be negative and is likely to be quite substantial. Regardless, the BLM has failed to provide any assessment on the impacts of the more than 8,800 oil and gas wells, 2,600 miles of roads, and other associated facilities that are reasonably foreseeable consequences of actions to be approved under this plan.

Response: The BLM wildlife biologists monitor as many raptor nests as possible throughout the field season to determine activity status. This process is very time consuming and occurs in the natural gas fields and in some other proposed and/or implemented project areas, such as prescribed burns. There are many other areas where raptor nests are active that have not been monitored as extensively; therefore, graphs showing the number of active raptor nests would be usable for some areas of the field office but would misrepresent activity in other areas of the field office.

Comment: 3-155 Crucial bighorn sheep ranges are discussed and reference made to Map 2-55. BLM should consider designating these areas as special management areas. Will it do so? These areas are relatively well defined, as BLM notes, "bighorn sheep are particularly well characterized in the RMPPA" and are of great public interest. Thus, special management efforts could be well targeted. It is also generally well recognized that bighorn sheep are susceptible to disturbance, so special management efforts are warranted.? We would also note that the prohibition on drilling between November 15 and April 15 in crucial winter ranges does not specifically apply to bighorn sheep. Page 2-112. This should be corrected.

Response: The BLM recognizes all big game crucial winter range as important habitat for these species and uses timing restrictions, as well as other identified BMPs, to protect these habitat types. Proposed protections for big game crucial winter ranges, parturition areas, and migration corridors are identified in the Wildlife and Fisheries section of Table 2-1, Detailed Comparison of Alternatives. In addition to timing stipulations, RFO has established BMPs (Appendices 1 and 15) as additional protective measures for big game crucial winter range. BLM and WGFD (as partners) have identified these measures as appropriate to protect big game species and their habitat, where surface disturbing and disruptive

activities are authorized. Additional opportunities to manage the quality of big game crucial winter ranges and parturition areas would be identified and pursued in association with Standards and Guidelines assessments (BLM's land health assessment), which are conducted at the watershed scale. Additionally, as big game movement corridors are identified, opportunities to decrease habitat fragmentation would be pursued. Table 2-10, Seasonal Wildlife Stipulations for All Surface Disturbing Activities, has been updated to incorporate bighorn sheep.

Comment: Recent data from Colorado, Wyoming and Utah indicate that white-tailed prairie-dog complexes shift on a landscape scale, possibly in response to plague or other factors not currently identified. Therefore all suitable habitat within and adjacent to complexes must be protected from direct habitat loss on a landscape scale if expansion opportunities are to be retained.

Response: The BLM implements BLM Manual 6840, which protects white-tailed prairie dogs and their habitat during the assessment, authorization, and implementation of proposed projects.

Comment: The DEIS Fails to Take a Hard Look at Impacts to White-tailed Prairie Dogs and Other BLM Sensitive Species It is very telling that in the "White-tailed Prairie Dog Habitat Management" section (p. 3-142), the BLM does not discuss management at all. Instead, the DEIS reiterates the earlier misinformation about habitat and similarity to black-tailed prairie dogs, and uses Burt et al. (1980), the field guide to North American mammals, as the primary reference.

Response: The BLM has added additional text that describes the life history of the white-tailed prairie dog in Section 3.19.3, BLM Wyoming State Director's Sensitive Species List Habitat Management, White-Tailed Prairie Dog Habitat Management, in the RMP FEIS. In addition, management actions for white-tailed prairie dogs are included in Table 2-1, Detailed Comparison of Alternatives. Chapter 4, Environmental Consequences, has described potential impacts to white-tailed prairie dogs as a result of implementing a project within several programs.

Comment: Habitat fragmentation can result in many indirect effects which are not adequately measured or indexed by the number of acres subjected to direct disturbance. BLM must provide an analysis of habitat fragmentation, both the degree to which it has already occurred, and analysis of the future fragmentation impacts resulting from activities permitted under the various alternatives of the proposed Rawlins RMP, in order to satisfy NEPA's hard look requirements.

Response: RFO uses the best available wildlife data (in cooperation with the WGFD); these data are collected by RFO and WGFD wildlife biologists and are keeping up to date as possible. In addition, BLM retains a GIS wildlife data layer to record data at a landscape scale. As noted, the RMP FEIS is a broad-scale planning document; projects contained under this umbrella document will be analyzed on a more site-specific basis for wildlife impacts. Habitat fragmentation, resulting from both direct and indirect actions, is analyzed as projects are proposed.

Comment: BCA also raised the issue that current BLM analyses that attempt to quantify disturbance by the acreage of the footprint are grossly inadequate. And yet, despite these concurring conclusions that direct acreage disturbed is not a biologically meaningful measure of the impacts of oil and gas development, and that in fact this measure grossly underestimates the true impacts of this type of development, BLM continues to rely heavily on this misleading statistic to argue that significant impacts to wildlife habitats will not occur.

Response: It is the role of the BLM to minimize the level of impacts through the use of BMPs (Appendix 15). Acreage of disturbance is only one of the measures that the BLM takes into consideration when looking at significance of impacts to wildlife.

Comment: BLM's analysis of direct and cumulative impacts fails to estimate not only the acreage of habitat that is currently fragmented, but also the acreage of habitat that stands to be fragmented if the 8,800+ wells and 2,600+ miles of road assumed for the Preferred Alternative are put in place over the next two decades. It stands to reason that if the BLM can forecast the number of wells and the mileage of roads, and can forecast the estimated well spacing, that the agency could therefore estimate the acreage of wildlife habitat fragmented as a result of these developments. And NEPA's hard look requirement demands that the agency do so. In addition, the agency has a responsibility

Response: The RMP FEIS is a broad-scale planning document; projects contained under this umbrella document will be analyzed on a more site-specific basis for wildlife impacts. Until a project site-specific proposal location is identified, it is extremely difficult to anticipate the direct and cumulative impacts to wildlife.

Comment: BLM has failed to provide any baseline information on the current state of habitat fragmentation in the Rawlins Field Office. It would certainly be feasible for the BLM to examine the pattern of the landscape which has already been fragmented by oil and gas development: All fields or exploratory areas that currently meet or exceed 640-acre spacing (1 surface wellpad per square mile) should be considered substantially fragmented. BLM should then quantify the acreage of public lands that are fragmented as an overall percentage of public lands in the planning area. But the agency should also present the proportions of fragmented habitats for all biologically meaningful subunits of the planning area. For instance, the BLM should publish habitat fragmentation percentages for each big game herd management unit and each upland bird habitat management unit. Habitat fragmentation should also be calculated for the Red Desert (Great Divide and Washakie Basins) as a whole. This is the appropriate level of baseline information on habitat fragmentation that is a necessary prerequisite for a credible impacts analysis on the effects of habitat fragmentation in the RMPPA.

Response: Currently, BLM is inquiring the WGFD, to gain population trend with regards to habitat fragmentation information from them. Higher priority (because of gas field development) has been given to species such as mountain plover (formerly proposed), sage-grouse (petitioned for listing), white-tailed prairie dogs (because of black-footed ferret concerns), and ferruginous hawk (because of the extent of development in nesting habitat). The warm water sensitive fish species are the subject of ongoing research and monitoring at present. Blowout penstemon and Gibben's beardtongue are also currently undergoing extensive inventory and research. Because of time constraints, personnel limitations, and budgets, RFO has not been able to acquire all the needed information on the remaining species. RFO is seeking outside funding through the BPS process to coordinate with other entities (e.g., Wyoming Natural Heritage) to help us fill data gaps.

Comment: ES-12 It is indicated that there will be compliance with Fish and Wildlife Service (see also biological opinions regarding the endangered fish species in the Colorado 2-15) and Platte River systems. With respect to oil and gas development, when will compliance occur? Specifically, will oil and gas companies be required to pay the "depletion fees" that are normally assessed for projects that cause water depletions? When will these depletion fees be assessed? Will they be assessed prior to a lease being issued? Will they be assessed when an APD is filed? Will there have to be documentation of payment of the fee (to the National Fish and Wildlife Foundation) before oil and gas can be developed, before an APD is approved? BLM anticipated that 8,822 wells will be drilled, and even assuming a conservative depletion of 2 acre-feet of water per well, that would be 17,644 acre-feet of depletions, a very large depletion by any measure. Does BLM plan to treat oil and gas development as a "major" or "minor" depletion? If it will treat this level of depletion as minor, what basis does it have for that determination? Does the Fish and Wildlife Service agree?

Response: The RFO considers depletions at the project level, since many times depletions would occur or not depending on the water source for drilling and construction activities and, in the case of CBNG, potential depletions because of pumping of water. If at this project-specific level depletions are anticipated, whether major or minor, the project proponent would be required to pay depletion fees as required as mitigation by existing BOs. This process is routinely coordinated with the USFWS.

Comment: ES-13 (see also 2-15, 2- 16) It is stated that informal conferencing and consultation will occur for listed species. What basis is there for pre-deciding that no activity that may be undertaken will not require formal consultation? Has BLM already decided that all activities it may authorize will have no effect on listed species? What is the basis for that? Does BLM already have the written concurrence of the Fish and Wildlife Service in a not likely to adversely affect determination for all projects it may authorize, allowing it to avoid formal consultation? It is stated that the statewide biological assessments and biological opinions for listed species would be implemented. As of this date, only the biological assessments for the bald eagle and whooping crane have been completed, and it is not clear any biological opinions have been completed. What provisions will be applied to the many other listed species, and what will be done if these biological assessments and opinions are not completed in the near future, or perhaps not at all? ,

Response: The Biological Assessment has been completed and is located on the Rawlins RMP website. The BO is included in the RMP FEIS (Appendix 14). This document complies with the ESA using the appropriate conservation measures located in Appendix 14, Biological Opinion, which includes Conservation Measures of the FEIS. In addition, the Terms and Conditions located in the BO are followed to comply with both informal conferencing and formal consultation with the FWS for compliance with the ESA.

Comment: Raptor nest buffers presented in all alternatives in the Draft EIS are completely insufficient. In the Preferred Alternative, surface-disturbing activities, such as well, road, and pipeline construction, could occur as close to active nests as 1200 feet (825 feet for other raptors – and perhaps closer if there is intervening topography), as long as construction/drilling activities occurred outside the nesting season. Draft EIS at 2-69. Only alternative 3 would grant a quarter-mile NSO buffer for roads and facilities (see Draft EIS at 2-69); it is notable that this meets the minimum buffer (for times of prey abundance) recommended in any peer-reviewed study of which we are aware. During years of prey scarcity, which can certainly be expected over the 15- to 20-year life of the plan, no alternative provides the minimum recommended protection found in the scientific literature. The larger 0.5-mile to 1.5-mile buffer zones around active raptor nests in the various alternatives offer only seasonal protections and apply only to construction activities (see Draft EIS at 2-69); vehicle traffic, maintenance, and production activities would be allowed to occur within a quarter mile of active raptor nests during the nesting season, with a strong likelihood of disturbing nesting raptors, causing temporary and/or permanent nest abandonment, and leading to the deaths of eggs and/or nestlings in the process. This is an unacceptable state of affairs, constitutes “unnecessary and undue degradation” to these wildlife populations, and therefore constitutes a violation of FLPMA.

Response: The BLM uses protection measures located in Table 2-10 to protect raptor species during the breeding and nesting season. There are both timing stipulations and distance stipulations that protect these birds during a critical time period in their life history. These buffers are based on research and the best available information and provide adequate protection. Young raptors are successfully fledged based on monitoring, and if distances are not sufficient according to new research, then the BLM will modify the timing and/or distance stipulations to protect the breeding birds.

Comment: Unlike other species in the DEIS, the BLM does provide a rudimentary (though incomplete) review of the scientific literature, at least as far as displacement distance is concerned. The BLM presents

science-based “displacement distance,” within game animals will flee as a result of disturbance, in Table 3-40. DEIS at 3-132. For vehicle traffic, disturbance distance is less for each species than for well construction and workovers: 0.25 mile for pronghorns, 0.75 mile for mule deer, and 1 mile for elk. Using the conservative distance for vehicle traffic, which provides a minimum disturbance distance for production phase gas fields and other developed roads, the DEIS should have provided a spatial display of disturbance buffers from roads and existing oil and gas developments by big game species, with an overlap shown for crucial winter range, and should also have presented acreage estimates of habitat that fall within these disturbance buffers under each alternative, in order to satisfy NEPA’s hard look requirements. This sort of rudimentary analysis would at least provide an index of how much land area would be impaired or unavailable as big game habitat, in both crucial ranges and in non-crucial ranges, for each species under each alternative. However, such an analysis was never performed.

Response: Disturbance and disruptive impacts can be difficult to determine for species, especially when assessing impacts from roads, projects, habitat conditions, weather conditions, and other factors that occur in different habitat types during different seasons and years. Chapter 4, Environmental Consequences, describes impacts to wildlife as a result of implementing proposed projects under various resource programs. Actual disturbance to specific species as a result of implementing a proposed action is best investigated at the local, site-specific level to obtain a more thorough analysis.

Comment: The Draft EIS inadequately presents what is known about greater sage-grouse in the area covered by the RMP. The number of active sage-grouse leks is likely under represented, and few data are presented on brood and winter use areas. The best science available is not used as the BLM continues to use a 0.25-mile buffer for No Surface Occupancy (NSO) for areas around active sage-grouse leks. This distance is the same as for Historic Trails. The DEIS indicates that all sage-grouse use areas are acceptable for leasing for energy development. More livestock grazing is recommended and the Best Management Practices include: additional fencing, more water pipelines, use of Tebuthiuron to reduce live sagebrush, prescribed fire, reduced pasture size, and short duration grazing all of which will reduce the suitability of habitats for sage-grouse. Management of sagebrush habitats to benefit sage-grouse is not considered. There is no mention of what will be done in the section on Monitoring and Evaluation if sage-grouse populations continue to decline. The BLM combines Alternatives 1-3 into their preferred Alternative (# 4) and fails to give adequate consideration to Alternative 3 (protection of resources). Overall, the DEIS fails to take a “hard look” at all of the direct, indirect, and cumulative environmental consequences of the development that will result from their preferred Alternative. The DEIS does not meet the conditions of professional integrity concerning sage-grouse issues as required by the National Environmental Policy Act.

Response: Currently, management of sage-grouse in the RMPPA is guided by the BLM National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan, as is reflected in the mitigations proposed in the RMP FEIS. Additional consideration of local trends in populations and habitat of sage-grouse will take place within local conservation planning efforts, which are currently underway. Implementation of additional conservation actions from local planning efforts will not be hindered by the finalization of this RMP.

Comment: There are no population or trend data presented in the DEIS for any of the Threatened, Endangered, Candidate, or Wyoming BLM Sensitive Species. See DEIS at 3-137 et seq. Baseline data on geographic occurrence is also not presented, except for black-footed ferrets, for which a very general description of their range within the RMPPA is provided. See DEIS at 3-138. Data for geographic occurrence of sensitive species is readily available through the Wyoming Natural Diversity Database, and should have been included in the DEIS. See, e.g., Attachment 6 at 52.

Response: Descriptions of T&E species and their distributions can be found in the BO (Appendix 14) attached to the RMP FEIS. Rather than using the RMP as a vehicle to conduct status reviews for Special Status Species, existing conservation plans are incorporated. Several additional conservation planning efforts are underway within the RMPPA. These plans will be used to identify and implement biologically meaningful conservation strategies for Special Status Species that consider current animal distributions, trends, and habitat conditions. The data available through the Wyoming Natural Diversity Database are not all-inclusive, which may inaccurately represent the numbers of species present within the field office area. The wildlife biologists complete individual onsite field inspections for all proposed projects and identify species habitat, including T&E and BLM state sensitive species, at that time. This is critical, since species are added and/or are deleted from lists throughout a span of years, and it is critical that the field biologists remain up to date on which species and their associated habitat have the potential to occur at the project site and which to check for at each visit.

Comment: Baseline data on sage grouse and sharp-tailed grouse is also absent from the Rawlins RMP DEIS. While the Affected Environment section provides a list of upland bird species, and a very gross description of their geographic ranges within the RMPPA, there is no data provided as an index of population size and trend for these two BLM Sensitive Species. The Wyoming Game and Fish Department has been keeping records of sage grouse and sharp-tailed grouse activity at lek sites, which are used traditionally from year to year. See, e.g., Attachment 6 at 17. The number of leks within the RMPPA, as well as an accounting of trend of active versus inactive and historical leks, is needed to determine whether sage grouse and sharp-tailed grouse populations are increasing, decreasing, or remaining stable under existing management and current levels of development. These data, though available and a necessary prerequisite to an informed analysis of impacts and choice among alternatives, are woefully absent from the Rawlins RMP DEIS.

Response: Analysis of population and habitat trends is better suited to conservation planning efforts, which are currently underway for south-central Wyoming. These planning efforts should enable a more holistic approach to trend analysis while identifying limiting factors and conservation actions that will improve the status of sage-grouse. Currently, management of sage-grouse in the RMPPA is guided by the BLM National Sage-Grouse Strategy and the Wyoming Greater Sage-Grouse Conservation Plan. Implementation of additional conservation actions from local planning efforts will not be hindered by the finalization of this RMP.

Comment: Baseline data on raptor populations are absent from the DEIS. See DEIS at 3-128/3-129. The BLM has data on raptor nest locations by species, and also data on whether these nests are active, inactive, or historic (abandoned for more than 10 years. See Attachment 6 at 28. It seems reasonable to expect the BLM to assemble some graphs showing the number of active raptor nests, as well as trends in raptor nest success (measured in fledglings per nest), over the course of recent years. Such baseline data is necessary to determine for each species of raptor whether populations are increasing, decreasing, or remaining stable under the current management and level of development. Without knowing population trend for the various birds of prey (including BLM Sensitive Species such as the ferruginous hawk and burrowing owl), the BLM has no way of knowing whether remedial action is needed through the RMP and whether current or accelerated rates of industrialization can be sustained without threatening the viability of raptor populations.

Response: The BLM wildlife biologists monitor as many raptor nests as possible throughout the field season to determine activity status. This process is very time consuming and occurs in the natural gas fields and in some other proposed and/or implemented project areas, such as prescribed burns. There are many other areas where raptor nests are active that have not been monitored as extensively; therefore, graphs showing the number of active raptor nests would be usable for some areas of the field office but would misrepresent activity in other areas of the field office.

Comment: Waterfowl and shorebirds are dependent to one degree or another on the maintenance of wetlands. Data from the Wyoming Natural Diversity Database indicate records for the following shorebird and waterfowl species of concern within the boundary of the Rawlins Field Office: common loon, Clark’s grebe, American white pelican, American bittern, white-faced ibis, ring-necked duck, bufflehead, snowy plover, upland sandpiper, long-billed curlew, Wilson’s phalarope, and three species of tern. According to WGFD (2002), observations of long-billed curlews suggest breeding activities north of the Seminoe Mountains and in the vicinity of the Pedro Mountains. WGFD (1995) recommended censusing waterfowl and shorebirds on all surface waters, and in particular getting counts of breeding pairs. The large number of sensitive or rare waterfowl and shorebirds found in the lands managed by the Rawlins Field Office make it imperative that the few wetlands found on these lands receive ample protection. Baseline data on the species of waterfowl and shorebirds, and their relative abundance and population trends, are absent from the DEIS. See DEIS at 3-129.

Response: Wetlands within the RFO are protected from a stipulation that prohibits surface disturbing activities within 500 feet of riparian habitat. The BLM coordinates with the WGFD to determine species abundance and population trends for species in areas of concern and when projects are proposed for development. In addition, waterfowl and neotropical migratory birds are protected under the Migratory Bird Treaty.

Comment: There is no analysis of the effect of permitted activities under the Rawlins RMP on the dispersal or recovery of gray wolves in the southern Red Desert in the Draft EIS. BLM should provide a detailed analysis of impacts permitted under the Rawlins RMP on wolf recovery in the planning area, as well as the dispersal of wolves to suitable habitat in the Southern Rockies ecosystem. This analysis appears to be lacking in the Draft EIS.

Response: The programmatic statewide biological assessment for the gray wolf, located on the BLM web page, includes seven field offices in Wyoming; however, the RFO is not located within the identified habitat. There are no known wolf packs within the RFO area. Although wolves may occasionally or rarely move through the area, there are no stable packs identified at this time.

Comment: Cliffs in the Haystacks, in the Ferris, Seminoe, and Pedro Mountains, and possibly along Willow Creek Rim meet the peregrine falcon nesting habitat criteria and might possibly be used by peregrine falcons as nest sites. With this information in mind, the BLM should provide a detailed analysis of impacts to peregrine falcons in the FEIS.

Response: The BLM uses protection measures located in Table 2-10 to protect peregrine falcons during the breeding and nesting season. There are both timing stipulations and distance stipulations that protect this species during a critical time period in their life history. These buffers are based on research and the best available information and provide adequate protection. Young falcons successfully fledge based on monitoring, and if distances are not sufficient according to new research, then the BLM will modify the timing and/or distance stipulations to protect this species. All known nests are protected, and mitigation measures are implemented to maintain and/or enhance habitat from proposed projects when identified.

Comment: Bock et al. (1993b) reported that burrowing owls probably respond positively to grazing in grassland habitats, but negatively in shrub steppe habitats. The BLM should bear these trends in mind when drafting individual Allotment Management Plans, and analyze impacts of various alternatives on burrowing owls.

Response: The BLM completes field site investigations and analyzes potential impacts from proposed projects, including authorizing and implementing AMPs, on a diversity of wildlife species, including

BLM sensitive species. Alternative management actions are analyzed and only those actions that would not cause impacts to and/or would reduce potential impacts to this species would be authorized.

Comment: Due to the importance of insects (particularly grasshoppers) in the diets of burrowing owls, the widespread use of pesticides would most likely result in impacts to burrowing owl viability. This underlines the importance of an impacts analysis on general (non-BLM Sensitive) rodent populations in the RRMPA, an analysis which has not been performed in the Draft EIS.

Response: The BLM would analyze any proposed project that would use pesticides, specifically determining potential impacts to sensitive species habitat, such as the burrowing owl. Additional studies in coordination with other agencies would be completed if required to determine habitat conditions, including prey population conditions, and potential impacts to species from proposed projects.

Comment: Burrowing owls are in a select group of wildlife most closely tied to prairie dog colonies, and prairie dog burrows are preferred nest sites for burrowing owls. Thus, the ongoing loss of prairie dog colonies has undoubtedly been a prime factor in the decline of the burrowing owl.

Response: The BLM protects the white-tailed prairie dog and black-tailed prairie dog under BLM Wyoming 6840 Manual for sensitive species and under the ESA for the endangered black-footed ferret. Surface disturbing activities are located outside of existing prairie dog towns to protect both the prairie dog and the black-footed ferret which also protects the burrowing owl. In addition, the BLM uses protection measures located in Table 2-10 to protect burrowing owls during the breeding and nesting season. There are both timing stipulations and distance stipulations that protects this species during a critical time period in their life history. These buffers are based on research and the best available information and provide adequate protection. Although not all of the burrowing owl nests are known, nests that are identified are protected and mitigation measures are implemented to maintain and/or enhance habitat and protect this species from proposed projects when identified.

Comment: The burrowing owl has been identified as a species of concern by both the BLM and the Wyoming Game and Fish Department. Given the rarity of this species, BLM should put strong measures in place to restore and increase burrowing owl populations, as they would appear to be on a trend toward listing under the Endangered Species Act.

Response: The BLM uses protection measures located in Table 2-10 to protect burrowing owls during the breeding and nesting season. There are both timing stipulations and distance stipulations that protects this species during a critical time period in their life history. These buffers are based on research and the best available information and provide adequate protection. Although not all of the burrowing owl nests are known, nests that are identified are protected and mitigation measures are implemented to maintain and/or enhance habitat and protect this species from proposed projects, when and where identified.

Comment: ES-14 It is stated that “facilities requiring repeated human presence” would not be allowed within certain distances of raptor nests. Does BLM agree or disagree that activities at completed oil and gas wells are instances of “repeated human presence”? Why or why not? It is our view these activities, such as heavy trucks removing various products are repeated disturbances and should be treated as such. It is also stated that BMPs will be required to reduce disturbance on big game crucial winter range. Will ongoing oil gas operations at completed wells be subject to this requirement? It is our view that ongoing operations at oil and gas wells are a significant source of disturbance on crucial winter ranges, and such disturbance must be carefully regulated. Does BLM agree? Why or why not?

Response: Natural gas well pads require the presence of human activities; therefore, stipulations are implemented to reduce and/or eliminate impacts to wildlife. Appendix 15 Best Management Practices

identifies actions that will be implemented to reduce and/or eliminate impacts to wildlife and their associated habitat. Natural gas field developments are analyzed using environmental impact statements to assess potential impacts to species as a result of authorizing specific actions.

Comment: The Bureau of Land Management’s waiver of sage grouse stipulations for oil and gas exploration and extraction compounds the negative impacts of development on sage grouse.

Response: RFO biologists perform a field check on all exception requests during the proper timeframe for the species in question (e.g., during sage-grouse nesting time frames, visiting big game winter ranges during the appropriate times). When the species occurs (such as a grouse on a lek), RFO biologists recommend not granting the exception request. If the species is not present (e.g., the lek is known to be inactive), the exception request may be granted.

Comment: Page 4-67, last paragraph, fourth line of the text states activity is not allowed at night (no qualifications) March 1 to May 15. Table 2-1 provides night is 6:00pm to 9:00 am March 1 to May 20. Clarity is needed regarding what restrictions will be applied. We have found no scientific justification for this restrict. It would appear it is intended to protect lek activity in the late evening (dusk) and early morning (dawn) and should be so stated. It would be inappropriate for this restriction to apply only the oil and gas operators and should be required of all resource users.

Response: This restriction would apply to all surface disturbing and disruptive activities.

Comment: Page 4-67, last paragraph, Line five “Proposed projects...would have only a 2 month window for development; however, the presence of all...is uncommon.” Limiting oil and gas development activities to 2 or 3 months is a tremendous burden on the oil and gas industry. It makes it virtually impossible to keep experienced crews, enter into long-term contracts with service companies and it has negative impacts on families and communities.

Response: As indicated in the paragraph, it is a rare situation where all of these critical wildlife resource values overlap and therefore a rare occurrence to have the limited 2 month development window. This management alternative is for the protection of wildlife values. In circumstances of “dire economic need” an exception to the stipulations can be requested and will be evaluated for merit on a case-by-case basis. The final decision rests with the Rawlins Field Office Manager.

Comment: Page 4-68 “Proposals for conducting year-long surface disturbing and other disruptive activities, including oil and gas drilling in big game winter range, sage-grouse seasonal use areas, and other seasonally sensitive habitats would be considered and surface disturbing and other disruptive activities in big game crucial winter range would require the use of BMPs (Appendix 15).” Comment: While we are pleased that BLM will consider year round activities, we are very concerned about the price of obtaining such permits. Unfortunately, this statement is contradicted on page 4-242, paragraph 3.

Response: Surface disturbing and disruptive activities would be prohibited under the proposed plan during the winter period of November 15 to April 30 within big game crucial winter range. Table 2-1, Detailed Comparison of Alternatives has been updated to include the revised text. Chapter 4-Wildlife Management has been revised to be consistent with the management actions for the proposed plan.

Comment: Page 4-155; White Tailed Prairie Dog Area: Comment: Oil and gas development activities are known to enhance WTPD populations by creating disturbances that they exploit. These areas include reclaimed well sites and pipeline corridors. Wyoming is full of examples of stable to increasing WTPD towns with existing linear facilities that provide raptors perching opportunities, such as electrical service and fences. Absent scientific justification, these types of restrictions should be eliminated.

Response: There are cases when white-tailed prairie dogs use disturbed areas and may benefit under these conditions. Field site visits are completed for every project and habitat is avoided, in general, to remove any potential harm to the prairie dog during construction of proposed projects. Protecting white-tailed prairie dog towns indirectly and directly benefits other species that rely on this type of ecosystem for its life history.

Comment: 4.13.17.3, last sentence: Comment: It is unnecessary and inappropriate to place buffers and seasonal restrictions on the management of other species to protect “sensitive periods within the life cycle of WTPDs.”

Response: Buffers and seasonal restrictions are needed for protection of sensitive life history periods of individual species. These protections may also provide secondary benefits to other BLM sensitive species.

Comment: Page 4-155: Summary, last line from Alternative 1 Summary: “...and protect the area by relocating activities outside WTPD towns.” Relocate existing structures? If these towns are stable and significant enough to propose as an ACEC, the existing structures are not impacting the stability of the population and do not need to be moved.

Response: This section states that existing prairie dog towns would be avoided during surface disturbing activities to reduce loss of habitat. Projects may be constructed near habitat, which may affect prairie dogs that are expanding their adjacent towns. Additional impacts may include habitat loss and temporary displacement. Intensive management would be implemented to reduce and/or eliminate any or some of these losses to these towns. The summary reiterates these factors under Alternative 1 of the RMPPA.

Comment: Page 4-156: Impacts of Alt 4 same as Alt. 3: Comment: Requirements such as road closures; protection afforded by other wildlife stipulations and buffers and 150 foot avoidance buffer between PD towns and surface disturbing activity are unnecessary for the protection of WTPD. How does BLM intend to maintain this buffer given the tendency for PD towns to expand? What scientific justification supports these stipulations? The protections afforded the other species should provide more than adequate protection for WTPD without the 150-foot buffer or a specific 1/4 mile setback for above ground facilities.

Response: The impact analysis in Chapter 4 has been revised to be consistent with the management actions in Table 2-1, Detailed Comparison of Alternatives. The buffer is applied at the time of development. The buffer is to protect under ground burrows that may run laterally beyond the boundary of a prairie dog town.

Comment: Page 4-55: Comment: Previously, Mountain Plover habitat was protected using a stair step approach based on the occupancy or use of the area by the bird. This method of protection should be continued; with avoidance of an area being required only when it is known to be occupied by nesting Plovers or their broods. It should be noted the mountain plover stipulation can be modified or eliminated using exception, waiver, or modification criteria when appropriate surveys conclude no plover habitat the area. It is also important to note that so far there is no method of identifying Preble's Meadow Jumping Mouse hibernaculum. If the intent is to protect areas, which may contain hibernaculum, the standard mouse habitat avoidance area of 300 feet on either side of the 100-year floodplain is sufficient.

Response: The BLM recognizes a diversity of protection measures that may be required under certain circumstances to protect wildlife species in areas where habitat is known, as well as those areas where habitat exists and species have the potential to occur. Mountain plover are difficult to observe, even during the breeding season, therefore, potential habitat is protected with stipulations as required under BLM Manual 6840. There are cases where both timing and seasonal restrictions are required in addition

to other forms of protective measures to ensure that wildlife habitat conditions are met for different life stages of certain wildlife species. In addition, field site investigations are completed for all proposed projects to determine if potential habitat exists, including hibernaculums for the Preble's meadow jumping mouse, which have the potential to be located outside of the 300 foot floodplain.

Comment: The BLM has adopted inadequate lek buffers and nesting habitat avoidance zones to protect sage grouse from disturbance from oil and gas exploration and development. The 2-mile buffer with seasonal stipulations and 1/4 mile no-disturbance buffer proposed for sage grouse leks and nesting habitat should be replaced with a 3-mile no-disturbance buffer to adequately protect both breeding and nesting habitat.

Response: RFO is currently utilizing the BLM National Sage-Grouse Strategy, the Wyoming Greater Sage- Grouse Conservation Plan, and when the local sage-grouse working group's plan becomes available, the strategies in this document will be implemented for grouse protection as well. Around known lek sites, the National Sage Grouse strategy uses 1/4-mile NSO as the best available scientific information available to protect nesting grouse; currently the RFO follows these guidelines. RFO is currently proposing changing this from 1/4-mile protection from the lek center, to 1/4 mile around the lek perimeter, which will extend the protective NSO. In addition, once nesting and brood-rearing habitat has been identified, RFO will use the nesting and brood-rearing habitat boundaries even if they are outside of the 2-mile lek timing buffer. Until such time as the strategies change, RFO (and BLM) is currently using these requirements as the best available scientific evidence to protect grouse.

Comment: Monitoring big game animals as suggested in this DEIS will be of little use in assessing impacts to those populations from implementation of any of the alternatives. The feasibility of reliably measuring a "downward trend" in numbers in a given area is questionable. Ascribing a cause-effect relationship to such a trend is meaningless and by the time such a trend could be detected it might well be too late to remedy the situation.

Response: WGFD is the agency responsible for monitoring big game species. BLM relies on G&F to interpret the results of this monitoring data; and consequently, relies on their recommendations as to when a threshold is reached. BLM & WGFD would work cooperatively to identify mitigation measures to reduce or minimize impacts.

Comment: It is my professional opinion that seasonal limitations as recommended in this DEIS will do little to mitigate impacts of gas and oil development on big game populations. If seasonal limitations are to be used as effective mitigation, they must be applied throughout the life of the project and enforced. A better approach to protect critical big game habitats would be to give them a NSO or no ground disturbance designation. If the gas and oil resources associated with these critical habitats is of enough value then energy companies should be able to access them with new technologies such as directional drilling from clustered drill pads and they should seek creative solutions for limiting impacts from their activities to wildlife populations.

Response: At present, BLM is subject to the provisions of FLPMA. Consequently, once the areas are leased, an NSO stipulation on crucial winter ranges would not be feasible. In addition to seasonal timing restrictions, the RFO can require measures, such as remote sensing of wells to reduce visits, directional drilling to reduce habitat loss, and potentially closing roads during critical time periods after development occurs.

Comment: Mitigation is hardly addressed in the DEIS. Appendix 18 briefly discusses offsite mitigation in a policy format. The limited discussion of a "threshold" for response provides little information. The 16 well pad locations per section figure that is presented here falls into the "extreme impact" category

presented by Tessmann et al. (2004) as does the 80 acres of surface disturbance per section. The ensuing discussion does not provide any insights into what sort of mitigation might result, nor is there any indication regarding the location of potential offsite mitigation areas. If we are to believe that offsite mitigation is feasible, then we must be informed about the locations of these mitigation sites and the management prescriptions to be used for mitigation.

Response: The text of Appendix 18, Compensation (Offsite) Mitigation, has been updated in the RMP FEIS to clarify that under current BLM policy, compensation mitigation is voluntary on the part of industry. Mitigation is addressed throughout the RMP FEIS. Management actions identified in Table 2-1, Detailed Comparison of Alternatives, Best Management Practices, which are identified in various alternatives and reclamation measures, are all examples of actions designed to mitigate impacts of authorized activities on the public land. Appendix 18, Compensation (Offsite) Mitigation, makes it clear that options for specific use of compensation mitigation would occur when onsite mitigation measures were not adequate to mitigate the impacts of proposed actions and would depend on the specific proposed project-level actions occurring during implementation of the Rawlins RMP. Some site-specific impacts cannot be known until projects are physically implemented. For this reason, final compensation mitigation opportunities may not be determined, in some cases, until after the impact has occurred.

Comment: From narrative and maps included in this DEIS, it is clear that there are private land inholdings within the planning area. I do not know what access or power supplies are available to these inholdings. In some areas where energy development has occurred, construction of roads and a supply of electrical power have made subdivision of private property into homes sites a feasible alternative (Alldredge and Alldredge 2003). Subdivision can result in additional habitat loss and fragmentation that would extend far beyond the life of any energy development project. Impacts resulting from changes in land use needs to be considered in analysis of both direct and cumulative impacts.

Response: BLM has no jurisdiction on private lands; however BLM tries to minimize the amount of habitat lost by decreasing the number of roads and power lines on federally owned land. NEPA analysis should address direct and indirect cumulative effects.

Comment: On page 4-265, the conclusion is drawn that impacts to “wildlife and fish habitat vary by alternative, however, the majority of impacts would be considered moderate.” We are provided no definition of a moderate impact nor is there any indication as to how the BLM arrived at this determination. The BLM acknowledges that effects will depend on amount, location and timing of activities, but they make no attempt to elucidate what these might be. Certainly mineral resource companies know the locations of gas/oil, CBM and CBNG, and the BLM should have some idea about areas proposed for vegetation treatments. Table A-33-12 provides some specific figures for acres of proposed vegetation treatments; surely the location of these treatments must be known. This information should be used to calculate acres of wildlife habitat that would be negatively impacted. It becomes even more imperative that a better assessment of impacts be provided considering the statement of page 4-265 that impacts could be “potentially significant.” Additional strong statements regarding impacts are made on pages 4-266 through 4-268, but there is no attempt by the BLM to quantify the magnitude of cumulative impacts to big game animals. Plausible estimates for these impacts could have been made for all big game species using existing scientific information, details regarding proposed management actions, The BLM's past experience and GIS technology. Such estimates could have been made at little additional cost to the BLM.

Response: Currently BLM is revising Chapter 4 and will define (“wildlife and fish habitat vary by alternative, however, the majority of impacts would be considered moderate.”) as well as quantify the magnitude of cumulative impacts.

Comment: It would seem prudent that the BLM provide a more realistic assessment of impacts by developing a range of possible population/habitat impacts resulting from an array of development scenarios. Using current GIS technology, past experience with oil and gas development and existing scientific literature, this exercise should be achievable with little extra cost. Results of this work would provide a range of impacts from worst- to best-case scenarios and a more realistic portrayal of anticipated impacts for evaluation of alternatives.

Response: Please see page ES-4, Environmental Consequences, Chapter 4, Four Alternatives Management Prescriptions, and Table 2-4, Summary Comparison of Impacts. BLM believes that the RMP FEIS range of impacts is appropriate at this level of planning.

Comment: I find no figures for miles of pipelines to be constructed with gas and oil development. Although construction of pipelines does represent additional direct habitat loss from the period of development through successful reclamation, utilization of pipelines can reduce the impacts from roads and subsequent hauling of gas and oil products. If pipelines are to be used, locations, amounts of associated habitat disturbance and timing of development need to be known in order to assess impacts to big game animals. Requiring energy companies to utilize telemetry to monitor well production and status during the production phase would also help reduce impacts from traffic and human disturbance.

Response: The gross acres of surface disturbance associated with oil and gas pipeline development are located under the Minerals Section of Appendix 33, Reasonably Foreseeable Developments and Reasonably Foreseeable Actions (RFD/RFA) Tables. Additional text concerning location of future oil and gas development and impacts to wildlife is included in Chapter 3, Affected Environment, and Chapter 4, Environmental Consequences, of the FEIS RMP. Pipelines can reduce the impacts to wildlife from roads and subsequent hauling of natural gas and are reclaimed after the pipelines are buried. Pipeline projects are analyzed at the site-specific level to determine potential impacts to wildlife and required mitigation measures to reduce and/or eliminate these impacts.

Comment: I question the validity of the estimates for numbers of wells reported in the DEIS. The BLM has historically developed an EIS based on one well density figure. Following leasing and approval of a management plan and EIS, energy companies approach State Oil and Gas Conservation Commissions with a request for a much higher well density. Because state commissions are charged with considering only “down-hole spacing,” they approve a higher density of wells and the BLM defaults to the state. An Environmental Analysis (EA) is then written on a small tract of the lease and because the area is small, the EA is approved. This process continues until well densities are significantly higher throughout the planning area than those depicted in the EIS. Consequently impacts to associated wildlife populations are substantially greater than were ever disclosed during the NEPA process. For an honest disclosure of suspected impacts resulting from gas and oil development, the BLM should use their experience and develop an impact scenario that reflects consideration of what has actually happened in areas of existing development.

Response: The Proposed Plan in the RMP FEIS does not establish a well density or well spacing limit. Downhole spacing is regulated by the WYOGCC. The BLM is responsible for establishing surface spacing and well density through Environmental Analysis at the activity plan level. Once a site-specific proposal is received by the BLM, impacts to wildlife resulting from well density would be disclosed during the activity plan level Environmental Analysis. If an additional proposal were received for a reduced well spacing, additional environmental analysis would be required prior to authorization or approval.

Comment: pp. 4-209; Methods of Analysis; 4th bullet Comment: The statement is made that “...Any activities that affect the ecological condition of the watershed and its vegetative cover would directly or

indirectly affect the aquatic environment.” The word “would” should be changed to “could”. It is an overstatement to say “Any activity...would impact...”

Response: This is the Significance criteria that would be considered, should this statement occur and needs to remain “would.”

Comment: Page 4-211, Fourth paragraph; The use of the WDEQ/Non Point Source BMP's for Silviculture would (could) reduce these perceived impacts to aquatic habitats and should be included as an appendix.

Response: BLM agrees that the use of appropriate BMPs, such as those found in Appendix 13, would help to reduce impacts to aquatic habitat. However, the use of BMPs alone would not in all cases eliminate impacts to aquatic resources.

Comment: Pages 3-131/132; Big Game: Comment: The discussion of flight distance is better placed in Ch. 4, Alternatives, as justification for stipulations than in Ch. 3, Affected Environment. The focus of this section appears to be oil and gas causing wildlife displacement rather than the current management (as titled) or an overview of the affected environment (as is appropriate).

Response: Section 3.19.1, Big Game Species Habitat Management, has been revised. Impacts discussed in this section have been moved to Chapter 4, Section 4.19, Wildlife and Fish.

Comment: 3-139 Mention is made of water depletion in the Platte River System and reference is made to Appendix 11. BLM states that “any RMPPA actions that may cause water depletions in the Platte River system are carefully considered by BLM” and reference is made to Appendix 11. Emphasis added. What does it mean to “carefully consider” water depletions? Does this mean BLM will formally consult with the Fish and Wildlife Service on any action that may lead to water depletions? It must. Will BLM abide by the Fish and Wildlife Services' Intra-service Biological Opinion on how agencies should proceed when a project they pursue may lead to water depletions? Why or why not? BLM admits that the Platte River Species are “highly susceptible to actions upstream...” In our view BLM must consult on any action that may lead to water depletions, and this includes oil and gas leasing. Does BLM agree? Why or why not?

Response: Given the uncertainties regarding the specific sources of water used at each oil and gas lease or the potential for operations on that lease to lead to water depletions, the BLM considers water depletions at the project level. At this level, an assessment is made as to the presence or absence of water depletions, and if identified, the volume of the depletions is calculated. This assessment can involve several analytical approaches, including isotopic analyses and groundwater modeling. At the time that depletion is identified, the BLM initiates formal consultation with the USFWS, at which time the BLM fully complies with existing intraservice BOs.

Comment: 3-133 BLM commits to upgrading fences “whenever and wherever possible” but it should be more specific. For example, it could commit to evaluating and requiring specific provisions for removing and upgrading substandard fences whenever an AMP is developed, or whenever grazing permits are renewed. It could commit to requiring upgrades whenever a specified problem is identified (such as the loss of, say, more than 50 animals due to fencing barrier problems). Will BLM provide more specific guidance and direction on what it means by the statement that fences will be upgraded whenever and wherever possible? Why or why not? Would it be possible for BLM to provide more specific guidance on when and where fences will be upgraded? Why or why not?

Response: The BLM uses a diversity of conservation measures when constructing fences for the protection of wildlife species, specifically big game species. The use of high tensile electric fences have

been implemented, which reduces impacts to migrating big game. The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species from all activities authorized on federal lands, including activities located within pronghorn seasonal ranges and migration corridors. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Fence upgrades will be determined at the site-specific project level and not at the RMP planning level. The BLM considers WGFD guidelines and recommendations to reduce impacts where needed.

Comment: Page 4-67; Impacts under Alternative 4; Oil and Gas, 7th paragraph. According to the text presented, protections from Sage Grouse are similar to Alternative 1, but according to Table 2-1 they are the same as Alternative 3. This should be corrected. In the 2nd line of the paragraph, it reads: “there would be additional impacts to Minerals Management activities from NSO stipulations on Raptor nests and Greater Sage Grouse/Sharp-Tailed Grouse leks. In addition, activity is not permitted at night within one quarter of a mile of a Greater Sage Grouse/Sharp-Tailed Grouse lek from March 1 to May 15.” The DEIS fails to include language which discloses that raptor and sage-grouse timing stipulations could be modified or eliminated using exception, waiver, or modification criteria when appropriate surveys conclude no activity is occurring. This should be presented in the PSIS. In addition the 4th line of the text states activity is not allowed at night from March 1 to May 15 Table 2-1 indicates that night is 6:00pm to 9:00 am March 1 to May 20. Clarity is needed regarding what restrictions will be applied. Line five of the paragraph states: “Proposed projects...would have only a 2 month window for development; however, the presence of all...is uncommon.” Limiting oil and gas development activities to 2 or 3 months is an unwarranted burden on the oil and gas industry. It makes it virtually impossible to keep rigs and associated experienced crews or be able to negotiate longer contracts with service companies.

Response: Criteria for exceptions, waivers, and modifications can be found in Appendix 9, Exception, Modification, and Waiver Criteria. Not all of the management actions in Table 2-1, Detailed Comparison of Alternatives Under the Proposed Plan that address greater sage-grouse management are the same as Alternative 3. Some management actions are consistent with Alternative 3 and some are unique to Alternative 4. The impact analysis uses Alternative 1 as a baseline for comparison. Similar impacts have been referenced to reduce repetition, and additional impacts have been discussed.

Comment: Pages 2-104/105, Table 2-6: Acres set aside for each stipulation/condition are calculated to be +2,051,000 which greatly underestimates the restricted areas since prairie dog avoidance areas have not been included. **Comment:** It would be helpful to the agency as well as the permitted users of the BLM lands to have a map that illustrates the areas of overlapping and back-to-back timing restrictions. Only when the full impact to the stipulation are known can the BLM make a determination as to the significance of the requirements placed on the oil and gas industry. Prairie Dog avoidance areas should be included in the Table 2-6 set aside calculations.

Response: The total amount of present prairie dog habitat land acreage calculation has not been determined at this time. This is a very time consuming and intensive process in which the BLM biologists were not able to calculate this acreage during the preparation of the draft RMP. Wildlife timing restrictions also have the potential to change over time, based on inventory and monitoring; therefore, providing these calculations in a 20-year document can be misleading to the reader after a specified time period.

Comment: Pages 2/78 Table 2-1 and Page 2-112 Table 2-10: These tables identify restrictions for sage-grouse winter concentration areas. **Comment:** No definition as to what constitutes a sage-grouse winter concentration is provided nor is any scientific justification for such a classification. Provide the scientific definition and basis for this category.

Response: Winter concentration areas consist of winter habitat (see Connelly 2000) where sage-grouse are known to concentrate during severe winters. The identification of these areas continues as conditions permit. These habitats have been identified as a key component of sage-grouse habitat (Connelly 2000). BLM defers the definition of greater sage-grouse winter concentration areas to the WGFD grouse definitions under the MOU between BLM and WGFD.

Comment: Page 4-66: Impacts under Alternative 4, Oil and Gas; Comment: according to the text Alternative 4 protections from Sage-grouse are similar to Alternative 1, but according to Table 2-1 they are the same as Alternative 3. This should be corrected.

Response: There are similarities to both Alternatives 1 and 3. Key differences from Alternative 1 are summarized.

Comment: Page 3-130, Upland Bird Management: Comment Paragraphs 1 and 2 are repetitive and should be combined to remove duplicative information. Paragraphs 1 and 2 also state the Greater Sage-Grouse is discussed in the BLM Wyoming State Director's Sensitive Species List section. The grouse are listed but not discussed; the DEIS needs to be revised accordingly.

Response: Section 3.19.1.4, Upland Game Bird Habitat Management, has been revised to reduce repetitive statements and organize the section. New text has been added to Section 3.19.3 to address greater sage-grouse.

Comment: "...Dog (WTPD) areas would be open to oil and gas leasing with intensive management of surface disturbing and other disruptive activities." Comment: This is unnecessarily restrictive. WTPD are not at risk, not listed and not warranted for listing, their habitat is not limited and their colonies shift over time. It is unwarranted for BLM to spend valuable resources imposing this level of protection on WTPDs.

Response: The BLM wildlife biologists complete onsite visits for all proposed projects within the field office to identify and assess wildlife habitat, including habitat for the white-tailed prairie dog, which is on the BLM Wyoming State Director's Sensitive Species List. The evaluation allows the biologist to identify and determine stipulations and/or mitigation measures that may be required to reduce and/or eliminate potential impacts to the species and their habitat as a result of implementing proposed projects. Biologists, often in coordination with other agency biologists, identify habitat assessment techniques and requirements that may be used to aid in determining wildlife habitat analysis and impact assessment from proposed projects. Actions such as these protect sensitive species and allow the USFWS to keep them from being listed under the ESA.

Comment: pp.3-143; 3rd paragraph, 6th sentence Comment: The statement attributed to Lyon (2000) must be conditioned with the information that her study took place over a span of only two years which provides no trend information. In addition, while disturbed hens traveled twice as far to nest, they generally moved towards the oil and gas development, not away from it.

Response: The sentence by Lyon (2000) addresses roads and predator movements, not nesting by disturbed hens.

Comment: pp.3-142; Paragraph 3, 1st sentence Comment: The statement reads: "Existing RMPPA wide and state wide guidance restricts exploration and development activity within 2 miles of a lek center. There is also a timing stipulation..." This should be corrected and clarified: There is a V4 mil NSO around a lek center, NOT a 2 mile buffer.

Response: The document reflects current management and is correct.

Comment: pp. 3-131 and 132; Big Game Comment: The focus of this section appears to be oil and gas activities causing wildlife displacement rather than the current management (as titled) or an overview of the affected environment (as is appropriate). Consideration should be given to addressing this in Environmental Consequences rather than in this section.

Response: The section included in these pages covers a description of the big game species in the RFO area, the WGFD management process (including the use of population indices and harvest statistics for herd units), human disturbance of big game species, a discussion on displacement, and studies that have occurred to determine which human activities influence big game species. These studies focus on oil and gas exploration and production but also on surface mining, road development, and recreation. The text then breaks into individual discussions on pronghorn, deer, elk, bighorn sheep, and other big game species and trophy game animals.

Comment: pp. 3-130; 3.19.1.4; Upland Bird Management Comment: Paragraphs 1 and 2 state that the Greater Sage Grouse is discussed in the BLM Wyoming State Director's Sensitive Species List section. The grouse are listed but not discussed; the DEIS needs to be revised accordingly.

Response: Greater sage-grouse are discussed in Section 3.19.3.4, Greater Sage-Grouse Habitat Management. This section is included under Section 3.19.3, BLM Wyoming State Director's Sensitive Species List Habitat Management, in the RMP FEIS.

Comment: pp. 3-130; 3rd paragraph states: "All bird species likely to be found...are protected under the MBTA..."

Comment: Sage Grouse are not migratory and do not fall into this category. The sentence should be revised to read: "Most bird species found..."

Response: The Migratory Bird Treaty Act protects bird species, including the greater sage-grouse.

Comment: This plan should specify that restriction on surface disturbing and disruptive activities would be applied with ¼-mile of the perimeter of delineated sage-grouse leks. [Page ES-14, Section: Wildlife and Fisheries, Para.4]

Response: The Proposed Plan includes a description of the ¼-mile buffer being applied to the lek perimeter.

Comment: Page 4-45, 3rd full paragraph; "Sensitive wildlife habitats. Comment: This discussion places both species of prairie dogs on the same conservation level as sage-grouse and winter range for big game. It also provides broad protection to sage-grouse winter use areas. Prairie dog habitats are not limited, nor are prairie dogs at risk. It is difficult to imagine a range improvement project, the location and timing of which, would impact prairie dogs. "Sage-grouse winter used area" is not defined but as used infers that all sagebrush would be protected from November 14 to March 15, making any activity more than one hour in duration "significant". This should be modified to protect only Severe Winter Relief Habitats, not all winter use areas. Or, as used in the Continental Divide/Wamsutter II EIS, protect ephemeral drainages with basin big sage stands greater than three feet tall. Please see the attached copy of a presentation to the BLM WSO regarding the Sage-grouse Internal Memorandum 2004-057, which includes a discussion of Severe Winter Relief habitat. (Exhibit B under separate cover)

Response: Sage-grouse winter use areas will be determined in cooperation with the WGFD. At this point in time, the criteria have not been established. Higher priority (because of gas field development) has

been given to species such as sage-grouse (petitioned for listing) and white-tailed prairie dogs (because of black-footed ferret concerns).

Comment: Page 4-55: “Surface disturbing and other disruptive activities would be intensively managed in all raptor concentration areas (RCA) (40,980 acres) and within the identified hibernaculum for the Preble's meadow jumping mouse from August 16 to May 14, which could, in some cases, result in the relocation of oil and gas facilities outside these areas. Surface disturbing and other disruptive activities would be prohibited in mountain plover habitat from April 10 to July 10 for the protection of breeding and nesting mountain plover.” **Comment:** This is overly conservative as “other disruptive activities” is defined to include any activity that requires more than one hour. The timing/seasonal stipulations will provide adequate protection.

Response: The BLM recognizes a diversity of protection measures that may be required under certain circumstances to protect wildlife species. There are cases in which both timing and/or seasonal restrictions are required, in addition to other forms of protective measures, to ensure that wildlife habitat conditions are met for different life stages of certain wildlife species.

Comment: Page 3-84; White Tailed Prairie Dog - While we can agree the ecosystem within which the White Tailed Prairie Dog operates is complex and supports a large number of other species, **Comment:** We disagree that WPTD towns warrant being raised to the status of consideration as an ACEC. Therefore, we strongly oppose such an ACEC in the draft RMP because it has no firm basis. Further, the paragraph, last line of the discussion states “Prairie dogs were once numerous on the prairies but have been reduced to a few complexes through poisoning.” This is a gross overstatement of the current status of the population of WTPD and should be deleted.

Response: The white-tailed prairie dog areas would not be designated as an ACEC in the Proposed Plan. The areas would be managed for the protection of prairie dog habitat, a keystone species.

Comment: Page 4-243, second paragraph: “Avoiding surface disturbing and other disruptive activities...would help to maintain the functionality of aquatic ecosystems for various fish and amphibian species” **Comment:** The use of the term “other disruptive activities” in conjunction with “the functionality of aquatic ecosystems for various fish and amphibian species” is overly restrictive. We appreciate the discussion of set backs from surface disturbance but encourage the use of the DEQ Non-Point Source BMP's to mitigate such disturbances.

Response: BLM supports the determination that BMPs alone may not always be sufficient to maintain the integrity of aquatic ecosystems.

Comment: A 1 -mile avoidance zone around sage-grouse and sharp-tailed grouse leks is not adequate for tall structures such as power poles or wind towers. Taller structures need to be kept at least 1 mile from lek perimeters (not centers), unless topography will keep them out of sight at a closer distance. [Page 2-99, Table 2-5, Row 4]

Response: Location of high profile structures, including overhead power lines, would be authorized on a case-by-case basis from ¼ to 1 mile of a lek perimeter. In addition to topographic screening, RFO also requires the installation of raptor antiperching devices on high profile structures.

Comment: Suggest adopting the timing stipulations that would protect wildlife during sensitive periods, as referenced here in Alt. 3, in the preferred alternative (Alt. 4). [Page 4-34, Section 4.5.4, Para. 2]

Response: The BLM applies mitigation measures (including timing stipulations) that are founded on basis of the best scientific information available, in coordination with other agencies, to protect a diversity of resources. The BLM manages a diversity of land uses and programs in coordination, both internally and externally, with other agencies, including the WGFD, the USFS, and the USFWS. The BLM works in coordination with the WGFD, as well as with other agencies, to minimize impacts to wildlife species, such as habitat fragmentation, by implementing BMPs.

Comment: The BLM states that forest management practices generally improve habitat for big game species. The Shirley Mountain have been shown to have an inadequate amount of hiding cover for elk, a condition that will only be exacerbated by any further loss of timber. This situation may also occur in other BLM managed timber stands and should be researched. [Page 4-32, Section 4.5.2, Para.7]

Response: The Shirley Mountain Forest Management Plan EA concluded that because elk populations were at WGFD objective levels, adequate hiding cover was present. Additionally, approximately one-third of the area contains adequate security cover. Hunting pressure causes elk to leave the higher elevation public land and move to neighboring private property. The BLM continues to support applied research efforts to identify, clarify, or quantify the environmental consequences of forest management actions. See the updated impact analysis in Section 4.5, Forest Resources, in the RMP FEIS.

Comment: 15)We assume the contents of the newly developed Instruction Memos regarding sage grouse protection and compensation mitigation will be incorporated into the Final EIS.

Response: The sage-grouse Instruction Memorandum (IM) has expired; however, RFO biologists are working on a Draft internal IM which will incorporate portions of the expired IM, the National Sage-Grouse Strategy, and the Wyoming Greater Sage-Grouse Conservation Plan. This internal IM will be incorporated into the FEIS.

Comment: Sawyer et al. (2004a), using field data and a modeling approach, concluded that on winter range, predicted probabilities of deer use were lowest in areas of the range where well pads and associated road networks were developed. Those authors also stated that areas with the highest probability of use included, among other things, a distance of 2.3 km (about 1.4 miles) from the nearest well pad. Powell (2003, cited by Lamb 2005) studying elk in the Jack Morrow Hills indicated that elk avoided using areas within 1.2 miles of active gas and oil wells and were typically found using habitats more than 2.5 miles from wells. That study also found that elk stayed at least a mile from major roads and more often selected habitats 1.9 miles away. Thus data presented in Table 3-40, had they been used to calculate acres of affected habitat, would have provided a highly conservative estimate. Clearly, big game animals will illustrate avoidance behavior when encountering human disturbance and habitat alteration such as will be associated with gas and oil development. In the Rawlins DEIS, the BLM has failed to consider any of the scientific literature essential for estimating habitat loss and they have not applied the literature they do include (see Table 3-40).

Response: The impact analysis has been rewritten in Section 4.19, Wildlife and Fish, in the RMP FEIS to include a discussion of potential displacement distances, referenced in Table 3-43, Potential Displacement for Big Game Species. Table 3-43 was formulated using multiple data sources and has been removed from Chapter 4. Although these are not the only sources available, they are a representative sample of the available literature that supports that displacement does occur. The intent of the management actions in the Proposed Plan is to apply mitigation measures and BMPs to surface disturbing and disruptive activities that would reduce disturbance to big game that results in displacement.

Comment: Special Management Areas: Upper Muddy Creek Watershed/Grizzly Potential ACEC. The Wyoming Game and Fish Department recommends BLM adopt adequate protections for the Muddy

Creek watershed upstream of the Weber Headcut structure. The upper Muddy Creek Drainage has a nearly intact native fish assemblage. We support the foundation that alternative 3 identifies. However, in the interest of protecting sensitive aquatic wildlife, we suggest, as a minimum, an alternative that provides NSO stipulations applied to existing oil and gas leases within the entire perimeter boundary of the proposed Upper Muddy Creek Watershed/Grizzly potential ACEC or SMA. Furthermore, we suggest the alternative withdraw all future oil and gas leases from inside the boundaries of the Upper Muddy Creek Watershed/Grizzly Potential ACEC or SMA. These stipulations will afford this critical habitat the protection it needs to perpetuate the native fauna. The upper Muddy Creek drainage is unique in that it supports an intact native fish assemblage that warrants conservation.

Response: The Proposed Plan has been updated to include a management action that closes the proposed Upper Muddy Creek Watershed/Grizzly fish habitat management area to new oil and gas leasing. See Table 2-1, Detailed Comparison of Alternatives, for updated text.

Comment: Oil and Gas activities may displace livestock, yet no discussion or quantification is presented to document how livestock displacement may increase impacts on wildlife behavior, habitat use and other resources [Paste 4-54, Section: 4.8.1, Line/Para 5

Response: The section quoted discusses livestock's impact on oil and gas (not oil and gas impacts to livestock, which is more properly referenced on pages 4-42 and 4-43). On page 4-45 (first paragraph), the Draft RMP states, "Livestock management adjustments would be considered when wildlife and livestock conflicts arise as a result of competition for water, forage, or cover."

Comment: Effective Implementation of Resource Management and Mitigation. Throughout the RMP, resource management is discussed in the context of broad, qualitative objectives and mitigation is described in conceptual terms such as "intensive management" or "best management practices" that lack specific direction and assurances that impacts will be mitigated. The standard stipulations pertain mostly to the development phase and not to the operational phase of permitted activities. Although wildlife BMPs are listed in Appendix 15, they are not referenced except in some discussions pertaining specifically to management of ACECs and other SMAs. Thus, most management and mitigation procedures would continue to be implemented at the discretion of the authorized officer, and would not be considered until the activity planning or permitting stages (e.g., a well field development plan, an allotment management plan, an APD or ROW permit). BLM has repeatedly stated that the purpose of an RMP is to set forth generalized, resource management planning goals and objectives. However, lacking more specific direction and implementation procedures, this approach cannot be supported by our agency, as it fails to clearly define desired future conditions and give an adequate level of assuredness that management will be directed to achieve those conditions.

Response: At the RMP level, it is appropriate to provide an array of BMPs to be used. The specifics of when and where they will be applied will be determined at the project-level EIS or EA.

Comment: 4) Identification of Measurable Objectives for Resources. The Rawlins RMP lacks measurable, quantitative objectives for managing ecosystems toward desired conditions. Resource condition objectives should be based upon properly functioning ecological conditions. BLM discusses "proper functioning condition" (PFC) only in the context of riparian communities, but does not apply the concept to terrestrial ecosystems. By BLM definitions, riparian communities are limited to areas associated with "permanent" water and do not include mesic sites associated with intermittent or ephemeral water sources. BLM discusses "desired plant community" (DPC), but does not provide any quantitative composition, cover, production, or diversity criteria. Nor does BLM explain how its concept of "DPC" may relate to a properly functioning ecosystem. BLM discusses "Wyoming. Standards for Healthy Rangelands," but these are largely subjective and therefore are not measurable or verifiable.

Because the rangeland “standards” are not quantitative, we do not believe they provide an adequate means of documenting the existing status or degree of similarity to an ecosystem in properly functioning condition. Without measurable criteria and objectives, there can be no assurance or accountability for managing resources in properly functioning condition.

Response: RFO is currently meeting with cooperators involved in the RMP process to formulate quantifiable objectives. For example, RFO will not allow habitat in crucial winter ranges to be degraded below a target threshold, which is currently under discussion with WGFD and other interested parties.

Comment: I think the quarter mile buffer zone around Sage Grouse Leks is not adequate. Sage Grouse experts believe it should be 2 miles. A 2 mile buffer should be in place, especially where permanent sites are located. Short-term sites should have the same parameter unless different operating plans are approved by the managing wildlife agencies.

Response: RFO is currently using the BLM National Sage-Grouse Strategy and the Wyoming Greater Sage- Grouse Conservation Plan, and when the local Sage-Grouse Working Group’s plan becomes available, the strategies in this document will be implemented for grouse protection as well. Around known lek sites, the National Sage Grouse Strategy uses ¼-mile NSO as the best available scientific information available to protect nesting grouse; currently the RFO follows these guidelines. RFO is currently proposing changing this from ¼-mile protection from the lek center, to ¼ mile around the lek perimeter, which will extend the protective NSO. In addition, once nesting and brood-rearing habitat has been identified, RFO will use the nesting and brood-rearing habitat boundaries, even if they are outside of the 2-mile lek timing buffer. Until such time as the strategies change, RFO and BLM are currently using these requirements as the best available scientific evidence to protect grouse.

Comment: BLM seasonal restrictions help protect wildlife during the stressful winter months and in the spring when birthing and brood rearing occurs. Even when Best Management Practices are used during those times, the best management is to leave “our” wildlife alone during those critical times. Still, I’m aware that the possibility exists to protect various species and allow some exceptions. I don’t want exceptions, however, unless all the agencies that manage and protect these impacted species, like Game and Fish and U.S. Fish and Wildlife service review and approve the exception. And, I would like language stating that in the RMP.

Response: A discussion of the exception process is identified in Appendix 9.

Comment: Page 4-266; Fish and Wildlife: Comment: Elk: Second paragraph; The issue of private and state lands (non federal/BLM lands) not providing the same level of protection to elk (or any other species) during sensitive seasons is discussed, inferring BLM must provide this protection because others do not. In reality what happens is BLM forces concentrated development on private and State lands as a result of the overlapping and months long restrictions on the use of public lands for oil and gas development.

Response: The major oil and gas EIS areas have a diversity of wildlife habitat, where there are requests to drill and produce natural gas wells, as well as CBNG wells, on both crucial winter range habitat and on noncrucial winter range habitat. Companies have numerous well applications approved on a yearly basis, which allow them to prioritize development throughout the year to avoid sensitive wildlife habitat areas during critical time periods. Although there are some projects that do have one or more wildlife stipulations attached and require planning for implementation to avoid these time periods, there are others that do not have any wildlife stipulations attached and can be drilled at any time throughout the year. Companies have always had the option to discuss implementing wildlife mitigation measures on private and state lands with appropriate landowners.

Comment: The BLM should adopt the Western Heritage Alternative as its final Rawlins RMP, with the following amendments: All big game crucial winter ranges and birthing grounds should be managed under No Surface Occupancy stipulations as far as future oil and gas leasing is concerned.

Response: At present, BLM is subject to the provisions of FLPMA. Consequently, once the areas are leased, an NSO stipulation on crucial winter ranges would not be feasible. In addition to seasonal timing restrictions, the RFO can require measures, such as remote sensing of wells to reduce visits, directional drilling to reduce habitat loss, and potentially closing roads during critical time periods after development occurs.

Comment: The plan opens outstanding wilderness-quality lands and important wildlife habitat to industrial development. Areas such as Adobe Town, Wild Cow Creek and the Pedro Mountains provide significant wildlife habitat for many species. In addition, these areas support a growing recreational aspect that BLM fails to acknowledge. FRD feels this unnecessary impact will further degrade the wilderness qualities, wildlife habitat and recreational opportunities in this area.

Response: The Adobe Town WSA is not open to new oil and natural gas leasing. The Wild Cow and Pedro Mountains areas do not meet BLM wilderness character or ACEC criteria. However, the BLM has proposed the Cow Butte/Wild Cow Wildlife Habitat Management Area to promote management of upland and riparian habitat for wildlife and other multiple uses.

Comment: Concerning overlapping crucial big game winter ranges. In the past, the Rawlins Field office has required the following stipulation on oil and gas leases: CSU (1) Surface occupancy or use within the overlapping big game crucial winter ranges will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Rawlins Field Office GIS database; (3) protecting habitat quality and preventing loss of overlapping big game crucial winter ranges. Since there has been no mention of this stipulation being maintained in the new RMP, we are curious to whether this is required for this Resource Management Plan, also. In our view, this stipulation should be maintained where crucial wildlife winter ranges overlap. Crucial winter range is considered high value habitat that must be protected where the winter ranges overlap. We request the BLM provide a map of overlapping crucial winter ranges in the final EIS, since the current Maps 2-53 to 56 make it very difficult to see these overlaps.

Response: By focusing on overlapping crucial winter ranges, vital habitat for any of the big game species could be deemphasized. Identifying mitigations that act to control development within all crucial winter ranges will provide equal consideration, regardless of the number of big game species using a wintering area.

Comment: Has Wyoming Game and Fish provided any support for BLM's efforts to redefine the period when protective stipulations will "generally" be enforced? How does this redefinition comply with the Wyoming Game and Fish Mitigation Policy and its new report Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats?

Response: BLM and WGFD (as partners) have identified these protective stipulations as sufficient to protect wildlife species and their habitat where surface disturbing and disruptive activities are authorized. As one example, RFO recently added time onto the sage-grouse timing stipulations, with WGFD support and participation.

Comment: The fish assemblage in the upper Muddy Creek watershed includes several species considered sensitive by both State and Federal agencies. These species include: Colorado River cutthroat trout

Oncorhynchus clarkii pleuriticus (NSS2), flannelmouth suckers *Catostomus latipinnis* (NSS1), bluehead suckers *Catostomus discobolus*, (NSS1), and roundtail chubs *Gila robusta* (NSS1) (Bower 2003, 2004; Oberholtzer 1987; Wheeler 1997). The drainage also supports fish species that are common and abundant across their range but no less important. These species include: mountain suckers *Catostomus platyrhynchus* (NSS3) and speckled dace *Rhinichthys osculus* (NSS5) (Bower 2003, 2004; Oberholtzer 1987; Wheeler 1997). Our agency classifies native fish species as NSS1 if they are rare with declining or vulnerable habitat, while NSS2 species are rare, but their habitat is considered stable. Upper Muddy Creek drainage has the appropriate minimum mix of habitat components (water quality, water chemistry, width/depth ratio, mix of pools, riffles, runs, pool depth, etc.) that has allowed these fishes to persist even in the face of dramatic changes in the watershed. Changes have occurred to the watershed through the removal of beaver, water developments, and land use practices that have altered watershed function. Water developments (i.e., stock water dams) built on both the mainstream Muddy Creek and its tributaries are especially problematic because they cumulatively alter the natural hydrograph, dewater stream segments, and fragment the watershed. Introductions of exotic fishes are additional stressors to the native fish assemblage. The exotics affect the native assemblage through competition, predation, and hybridization. Yet, the native fish assemblage persists for now. We are concerned additional perturbations within the upper Muddy Creek watershed may tip the scales, resulting in the loss of the habitat components that have allowed these sensitive native fish assemblage to persistence.

Response: BLM will continue to cooperatively and collaboratively manage the unique resources present within the upper Muddy Creek watershed.

Comment: Page 4.216 Special Management Areas: first paragraph Comment: The last two sentences infer recreational developments that may take place have a higher level of management and therefore a lower level of impact, than oil and gas development activities. These sentences further infer that because “Plans of operation are required for all (recreational) development”, they will some how have reduced impacts when compared to oil and gas developments, which are also required to have plans of operation, not to mention layers of NEPA analysis. The DEIS must fairly and consistently disclose the level of impact attributed to each proposed activity.

Response: There is no comparison made between oil and gas development and recreation in the paragraph, and therefore no inequity is implied.

Comment: The BLM could have better represented impacts from livestock grazing by supplying a table of forage availability and the allocation of forage to livestock, feral horses and wildlife. This is especially critical in assessing impacts to vegetation and wildlife from an additional 95 horses in the Lost Creek HMA (4-235). “Periodic gathers” (p. 2-16) must be better defined. To evaluate the impacts to wildlife from feral horse populations, the BLM must indicate at what population level these “gathers” will be conducted and how they will determine the size of horse populations. Currently there is no scientific survey method employed to estimate the size of horse populations and there is often disagreement regarding the actual size of these populations (Alldredge and Alldredge 2003).

Response: The discussion in Appendix 12 that is referenced in the next paragraph in Section 2.4 provides additional definition of the term and explanation of the practices used. BLM, in conjunction with United States Geological Survey, BRD is currently evaluating a range of inventory methods and plans to implement standardized inventory procedures when this effort is completed and alternatives are evaluated.

Comment: Section 4.19 begins with some generic discussion of impacts to wildlife that could result from various aspects of the RMP. Regretfully, none of this information or the information in Table 3-40, or a fairly substantial body of scientific information is ever used to describe anticipated impacts. Appendix 33

(p A33-1) provides acreage estimates for forestry activities but without understanding the spatial and temporal relationship of these acreages, data presented are of little use in evaluating impacts. In order to adequately assess impacts from forestry or, for that matter, any environmental alterations, we need to know what habitats will be impacted, where these habitats are located and the time scale for projects. Based upon the small acreages associated with actions presented on p A33-1, the impacts to big game populations from forestry activities are probably minimal. My conclusion assumes that roads from timber harvest activities will be closed at the completion of the activity (p. 4-211) and that these closures will be enforced.

Response: BLM needs to know what habitats will be impacted, where these habitats are located, and the time scale for projects. Therefore these issues are considered at the site-specific scale (i.e., habitat fragmentation, number of acres disturbed, and specific area closures).

Comment: I find little else in the Affected Environment chapter that provides an adequate database from which impacts to big game animals could be assessed. Table 3-40 seems out of place in Chapter 3 because it presents data for displacement of big game animals that is never used in assessing environmental consequences. Pronghorn in the Great Divide Basin are generally not “harem-formers” (p 3-133 outdated generic reference to Cochrum 1962), but instead are, for the most part, territorial (Deblinger and Alldredge 1989). Because of pronghorn fidelity to territories, disturbance on summer and transition ranges could impact pronghorn populations through disruption of reproduction. It is erroneous to assume that when disturbed, big game animals can simply move to some new area (Tessmann et al. 2004). Because of habitat limitations and social behavior of these animals, there generally are no new places for displaced animals to move. The consequences of displacement of big game animals and disruption of reproductive behavior were not considered in the DEIS.

Response: RFO biologists are currently (through aerial photo analysis, WYOGCC well layers, and past industry maps of individual projects) creating a GIS map of the existing infrastructure. The BLM will then be able to better evaluate current habitat availability and quality in future planning documents. Please see updated text in Chapter 4 of the RMP FEIS.

Comment: Because the current DEIS lacks any information on acreages disturbed and my past experience attempting to obtain this information from the Rawlins BLM office, I conclude that impacts from implementation of past BLM management plans have not been adequately considered in development of the new management plan.

Response: The impacts from implementation of past management plans have been considered in the development of the RMP FEIS. While estimates of the acreage of surface disturbance, because of past BLM management plans and existing surface disturbance, are not readily available for the entire RMPPA, surface disturbance estimates are part of environmental analyses at the activity plan level. The actual surface disturbance, because of BLM-authorized project activities, residential/urban, railroad, federal, state, and local highways, private property development activities, etc., within the RMPPA is not a reliable indicator of impacts to resources. It is the location of the surface disturbance and how wildlife, wild horses, humans, etc., interact and relate to that disturbance that is of importance. Based on activity level plan analysis (e.g., oil and gas field development project EISs), surface disturbance estimates is a poor indicator of impacts to wildlife. In most all cases, the surface disturbance percentage within project areas is only a few percent of the project area, whereas the displacement and fragmentation of habitat because of disruptive activities, human presence, and noise, can be relatively high. Analyzing these factors better predicts impacts to wildlife than considering only acreage disturbed within a project or RMPPA. As an example, the Continental Divide/Wamsutter II Natural Gas Development Project area encompasses 1.06 million acres within the RMPPA. The existing surface disturbance prior to project initiation equates to 18,400 acres, or 1.73 percent of the project area. The existing surface disturbance

plus planned project disturbance plus planned reclamation within the project area was estimated to be approximately 15,900 acres, or 1.5 percent, of the project area surface disturbed at the end of project. This is an actual reduction in the overall surface disturbance because of interim surface reclamation.]

Comment: The BLM should have also supplied information on miles of fence that do not meet their standards and the extent and location of fences that are currently known to be a problem for big game and especially pronghorn.

Response: The BLM in coordination with the WGFD identifies high priority areas (i.e., migration corridors) for fence conversions to meet current standards. It is difficult to accurately identify the current number of fence miles that do not meet standards and need conversion.

Comment: A common problem emphasized in Wyoming Game and Fish Job Completion Reports was that the BLM had no comprehensive travel management plan, nor had there been much enforcement of existing travel management restrictions (Alldredge and Alldredge 2003). The DEIS does not address this problem and does not provide estimates for road densities, acreages affected by existing gas/oil and mineral activities and acreages of vegetation treatments that have occurred. Without these figures it is not possible to evaluate current habitat availability or quality and it is certainly incorrect to assume that surface disturbances in the planning area have not already affected big game populations. I submit that the acres of disturbed habitat associated with past vegetation treatments, over 4770 existing gas/oil wells (Table 4-5) and the transportation infrastructure to support those activities have already created an impact to big game populations. Yet this impact remains unmentioned in the DEIS and quite likely un-monitored.

Response: RFO staff is currently working on transportation plans for the entire RMPPA. These plans will help to reduce overall impacts to wildlife habitat. Additionally, RFO biologists are currently (through aerial photo analysis, WYOGCC well layers, and past industry maps of individual projects) creating a GIS map of the existing infrastructure. BLM can then evaluate current habitat availability and quality.

Comment: Nowhere in the description of the affected environment do I find reference to migration routes. Big game populations must be able to access seasonal ranges via migration routes and activities proposed in all alternatives in the Rawlins DEIS can impact big game use of migration routes. Limiting the ability of migrating big game animals to access critical habitats reduces their options for coping with environmental conditions such as forage availability, snow depth, wind and human disturbances (Tessmann et al. 2004) and can lead to increased mortality. Albeit restrictions to migration caused by fences and mineral resource development (4-265) are briefly mentioned, the BLM must consider big game access to essential habitats that could be impacted by fences and mineral resource development.

Response: The best information RFO has is provided by WGFD. There are data gaps that RFO is seeking to fill. For example, RFO is a cooperator with WGFD and industry in identifying mule deer migration corridors on current EIS areas; also, BLM is proposing a telemetry study on pronghorn antelope to examine the impacts of oil and gas development across the spectrum of habitats, including summer and transitional ranges.

Comment: Furthermore, Deblinger (1988), Alldredge and Deblinger (1988) and Alldredge et al. 1991 all reported that pronghorn in the Great Divide Basin illustrated strong fidelity to fawning habitats. Loss of these habitats, whether summer, parturition or transition, would significantly impact pronghorn populations. If data for pronghorn parturition and summer habitats are not available, the BLM could have obtained these from field observations or by using GIS technology and published literature that describe characteristics of these habitats. The same approach could have been applied to ascertain potential fawning habitats for mule deer and calving habitats for elk. Based upon the potential consequences for big

game populations, I do not believe that the cost of obtaining this essential information would be unreasonable.

Response: RFO relies on WGFD to identify crucial big game habitat. At present, WGFD has not identified pronghorn parturition habitat (as it has for bighorn sheep and elk). If these areas for pronghorn are identified by WGFD, RFO would apply the same protections (timing restrictions on development activities) as are now in place for other big game species.

Comment: Page 1-132 implies that summer habitat is not a limiting factor for big game species in the planning area. Based upon the extent of energy development proposed for the planning area, I am concerned that summer habitat could become limiting for pronghorn and do not believe that the BLM should simply assume this habitat is not limiting or could not become limiting.

Response: Current knowledge on big game species points to winter range being the most crucial habitat component. However, RFO biologists are proposing a telemetry study on pronghorn antelope to examine the impacts of oil and gas development across the spectrum of habitats, including summer and transitional ranges.

Comment: The only baseline data provided in the RMP are estimates for acreages of crucial winter ranges (3-132 to 3-135) for big game species. Page 3-133 briefly states the importance of transition ranges for pronghorn but no figures are provided for acreages of these vital habitats. Transition ranges are also important for mule deer and elk (Alldredge and Alldredge 2003), but no acreage estimates are provided for these ranges.

Response: On transition ranges, presently, WGFD has not refined its data on big game migration corridors within the RFO. RFO is starting to quantify these crucial areas as funding permits. For example, RFO is a cooperator with WGFD and industry in identifying mule deer migration corridors on current EIS areas. This is just the start of this effort; more of this intensive work will be done in the future.

Comment: Page 4-242, Wildlife and Fish Management: (See the following seasonal restrictions chart.) first paragraph: The DEIS changes the setback distances for raptors from 1/2 to 1 mile from February 1 to July 31 depending on species to 3/4 to 1 mile from February 1 to September 15. The only justification provided in the draft RMP for this change is the need for species-specific standards; at issue is the time provided for the goshawk and the burrowing owl. The USFS has numerous Goshawks on the Bridger-Teton, whereupon July 31 is the all-clear date. We can find no justification for going beyond this date in the DEIS. In previous decision documents within the RMPPA, the avoidance for Burrowing Owls (BO) was only required after surveys had been completed. While the literature shows the initiation of egg laying for Burrowing owls to be quite variable by calculating out nesting, incubation and fledging; it seems reasonable to use July 31 as an all-clear date for this species as well. The BLM provides no justification for the extended time frame proposed. Our justification for July 31 is as follows: The initiation of egg laying in BO's is quite variable, as reported in the literature, and ranges from 3-15 to 8-23. Because of this huge range and the probability that some of the late dates represent re-nesting efforts for birds that lost their first nests, the mid-point date for egg laying should be used. When 70 days are added to the average egg laying date we get the date of fledging. For egg laying initiation, Call gives 4-30 to 6-6, Bent uses 5-1 to 6-13, and Birds of North America uses 3-15 to 6-1. There are dates from other studies that show egg laying starting as late as 7-1 and 8-23. Without data, it is not possible to calculate averages, but it is safe to use 8-23 as atypical and probably involves a re-nester. If we take the earliest reported date for nesting (3-15) and latest reasonable date (July 1) and take the mid-point, we get 5-7 as the average date for egg laying. Adding 70 days to May 7 gives us July 16 as the average fledging date. Add two weeks to give them time to strengthen wings and get out of area and we end up with the original date of July 31.

Response: The dates identified in Table 2-10 allow for a diversity of factors to ensure the survival of fledglings. The monitoring program has shown that burrowing owls in this area have been observed at the nest site through mid-September; therefore, these dates are required for protection of these species. The August date protects goshawk fledglings for the same purposes.

Comment: Special Management Areas, ACEC designations. In order to protect important surface resource values, all designated, big game crucial winter ranges and sage grouse lek complexes, and important habitats of NSS species should be managed as ACECs. The Wyoming Game and Fish Commission Mitigation Policy should be followed in developing a plan of operations within wildlife-based ACECs. In addition, the Department recommends the following SMAs listed in Table 2-1 be managed as ACECs: Adobe Town, Prospect Mountain, Encampment River, Bennett Mountain, Sand Hills, Jep Canyon, Shamrock Hills, Stratton Sagebrush Steppe Research Area, Chain Lakes, Laramie Peak, Red Rim-Daley, Pennock Mountain WHMA, Wick-Beumee WHMA, Laramie Plains Lakes, Upper Muddy Creek Watershed/Grizzly, the identified white-tailed prairie dog complexes, and the Encampment River. The wilderness study areas (Adobe Town, Encampment River Canyon, Prospect Mountain, Ferris Mountains, and Bennett Mountains) would become ACECs in the event they are not designated as wilderness areas. [Page 2-35, Section Table 2-1, SMAs]

Response: Many of the SD/MAs listed were identified at scoping and in comments on the RMP DEIS for consideration as ACECs. Those SD/MAs that met the ACEC relevance and importance criteria were considered for ACEC designation in at least one alternative (see Table 2-1 in the RMP FEIS). If, and when, the WSAs are released by Congress from wilderness consideration, the land use planning process will be used to determine management priorities for these lands. Meanwhile, the WSA status continues to provide protection for the WSAs.

Comment: We are concerned that management for this area would be directed solely at avoiding loss or damage of significant habitat. The primary resources of concern here are elk crucial winter range, and raptor nesting. In both cases, disturbance during critical periods could be more detrimental than physical loss of habitat. Whether designated an SMA or not, management of this habitat needs to be directed at avoiding disturbance during critical periods, not just lost acreage. [Page 2-11, Section 2.3.11, Jeps]

Response: In coordination with other agencies, the BLM applies mitigation measures (including timing stipulations) that are founded on the best scientific information available to protect a diversity of resources. The timing stipulations are designed species-specific, to avoid impacts during critical periods, such as nesting and calving areas. The BLM manages a diversity of land uses and programs in coordination, both internally and externally, with other agencies, including the WGFD, the USFS, and the USFWS.

Comment: We note that, “OHV and over-the-snow vehicle use would be closed in specific big game crucial winter range, as they are identified”. What is the process BLM envisions for identifying crucial winter range? BLM already has at its disposal electronic data specifically designating these lands. We ask that BLM commit in Alternatives 3 and 4 to close all but arterial roads within crucial winter ranges for big game and winter habitat for sage grouse and sharp-tailed grouse during the winter period November 15 – April 30. [Page 4-75, Section 4.9.5, Last bullet]

Response: Currently, the WGFD has identified the crucial big game winter range that RFO uses. WGFD may modify these in the future, and if so, RFO would defer to the new designation. At present, BLM is subject to the provisions of FLPMA. Consequently, once the areas are leased, closing well access roads even within areas having stipulations on crucial winter ranges, sage-grouse nesting areas, and some of the other sensitive wildlife habitat would violate lease rights. In addition to seasonal timing restrictions, the

RFO can require measures, such as remote sensing of wells to reduce visits, directional drilling to reduce habitat loss, and potentially closing roads during critical time periods after development occurs.

Comment: We again question the adequacy of the Y4 mile buffers (see Comment 7 above). The discussion again omits timing stipulations for big game and other protections for other resources. Given that Alternative 3 is the most conservation minded, we feel V2 mile buffers would be more appropriate, especially given the fact that activities uphill within V4 mile may be quite conspicuous. We are particularly concerned about the language to allow year round disturbance given that timing limitations are about all the mitigation some resources get. The guidance and supporting documentation in Appendix 15 (BMPs) are far too vague. [Page 4.67 -4.68, Section: 4.8.5, Last Para.-Top]

Response: Please refer to impacts to wildlife found in Section 4.19.3, page 4-236 and not in the Impacts to Leaseable Minerals, Oil, and Gas section.

Comment: Given that Alternative 3 is the most conservation minded, we feel % mile buffers would be more appropriate, especially given the fact that activities uphill within mile may be quite conspicuous. [Page 4-63 -4-64, Section: 4.8.4, Last Para.-Top]

Response: Please refer to impacts to wildlife found in Section 4.19.3 and not in the Impacts to Leaseable Minerals, Oil, and Gas section.

Comment: Comment 5 above also applies to alternative 2. This section omits specific reference to big game habitat considerations and measures for a variety of other wildlife (e.g., raptors) [Page 4-59 -4-62, Section: 4.8.3]

Response: Please refer to impacts to wildlife found in Section 4.19.2 and not in the Impacts to Leaseable Minerals, Oil, and Gas section.

Comment: Again, the discussion under alternative 1 omits specific reference to big game habitat considerations and measures for a variety of other wildlife (e.g., raptors) [Page 4-58 -4-59, Section: 4.8.2]

Response: Please refer to impacts to wildlife found in Section 4.19.1 and not in the Impacts to Leaseable Minerals, Oil, and Gas section.

Comment: The lack of mention of impacts to wildlife resources other than for a few species like Preble's meadow jumping mouse and mountain plover leads us to question the adequacy of the analysis. Under all alternatives, development will occur and impacts will continue. The EIS and plan need to address these issues. [Page 4-54-4-56, Section: 4.8.1 Impacts Common To All]

Response: Please refer to impacts to wildlife found in Section 4.19.1 and not in the Impacts to Leaseable Minerals, Oil, and Gas section.

Comment: Page 2-56, Alternative 3 and 4 in Table: "The white-tailed prairie dog areas (Map 2-8) would be managed as an ACEC for protection of prairie dog habitat." The White Tailed Prairie Dog is not an at-risk population {i.e. not warranted for ESA listing), and BLM should not provide protections as if it were. Absent a listing or proposed listing that would mandate protection, BLM must provide scientific support for the need to designate an Areas of Critical Environmental Concern (ACEC) to protect the habitat. Recommendation: BLM should revise the document to clearly state that neither Alternative 3 or 4 would include designation of an ACEC for white tailed prairie dog habitat. And, to the extent such a designation is considered under the other options, BLM must provide an analysis of the criteria warranting such a designation

Response: The white-tailed prairie dog is a Wyoming BLM sensitive species, and therefore the BLM is directed to protect the species to the extent that actions authorized by the BLM will not cause the future need to list the species under the ESA. The language in the document indicating the potential for a white-tailed prairie dog ACEC is included to show the most conservation-oriented potential alternative. The final decision is the responsibility of the Rawlins Field Office Manager.

Comment: ES Page 14; Sage-Grouse - paragraph one states the RFO is implementing BLM management direction consistent with the Wyoming Greater Sage-Grouse Conservation Plan. The 7th line uses the term “delineated leks”. **Comment:** This term is used not use anywhere else in the DEIS, The BLM Sage-Grouse IM, or in the Wyoming State Plan. The DEIS should limit protection to active leks as defined in Connolly 2000.

Response: The term “delineated” has been removed from the Executive Summary and replaced with “the perimeter of.” BLM will abide by the BMPs identified in Appendix 15 of the RMP FEIS, Best Management Practices for Reducing Surface Disturbance and Disruptive Activities.

Comment: Page 4-242, Third Paragraph: “Proposals for conducting year-long surface disturbing and other disruptive activities in seasonally sensitive habitats would not be considered.” BLM should not be eliminating this option. Instead, BLM must analyze site-specific information and circumstances and then base decisions for year-long activity on that. In some cases allowance for year-round activity could foster other mitigation measures such as directional drilling.

Response: Year-round drilling has been removed from Table 2-1 in the Proposed Plan and will not be considered further. Directional drilling will always be available as a BMP, when it is feasible. However, most of the sensitive habitat within high and moderate oil and gas potential areas also occurs within the checkerboard land pattern. Since there are no restrictions on private and state lands, year-round development could still occur on lands in seasonally sensitive habitat.

Comment: A14-1 to 7 On page A14-1, it is stated the listed conservation measures “will be applied.” This is an unclear statement. Will they be applied as stipulations (we believe they should be), conditions of approval, or merely as advisory guidance (see page A12-1)? It is also not clear that the provisions of Appendix 14 are clearly applicable to the species that are discussed on pages 2-72 to 2-78. This should be corrected—a clear statement should be made that Appendix 14 applies to all listed and sensitive species.

Response: The Biological Assessment has been prepared in formal coordination with the USFWS and is included in the FEIS. This document complies with the ESA using the appropriate conservation measures located in Appendix 14, Biological Opinion, which includes Conservation Measures of the FEIS. In addition, the Terms and Conditions located in the BO are followed to comply with both informal conferencing and formal consultation with the USFWS for compliance with the ESA. The BLM and USFWS have consulted on the BA early in the NEPA process, and the final BO will be included in the RMP FEIS, Appendix 14.

Comment: A16-1 It does not appear that the mountain plover or the provisions of Appendix 16 are mentioned anywhere on pages 2-68 to 2-78. This should be corrected. It should be made clear the mountain plover will receive special protection, and that these stipulations will be used to achieve that protection. In addition, it should be made clear the provisions of Appendix 14 apply. It appears the provision of Appendix 16 will be applied as stipulations while that is not clear relative to the provisions in Appendix 14. As noted above, we believe that the conservation measures in Appendix 14 should be applied as stipulations, but at a minimum BLM must provide an explanation of any decision to require some provisions as stipulations (Appendix 16) but not others (Appendix 14).

Response: The Biological Assessment (BA) has been prepared in formal coordination with the USFWS and is included in the FEIS. This document complies with the ESA using the appropriate conservation measures located in Appendix 14, Biological Opinion, which includes Conservation Measures of the FEIS. In addition, the Terms and Conditions located in the BO are followed to comply with both informal conferencing and formal consultation with the USFWS for compliance with the ESA. The BLM and USFWS have consulted on the Biological Assessment early in the NEPA process, and the final BO will be included in the RMP FEIS (Appendix 14).

Comment: Page 3-143, First Full Paragraph: "Oil and gas development within fragmented Greater sage-grouse habitats should completely avoid remaining suitable habitats." The document lacks any support for such a statement. Recommendation: BLM should either provide scientific support for this statement or delete it. Additionally, if this statement remains BLM must identify the level of fragmentation at which this should occur (i.e. severely, moderately, etc.) as well as its scientific basis.

Response: Section 3.19.3, Greater Sage-Grouse Habitat Management, was revised, including the removal of the sentence "Oil and gas development within fragmented greater sage-grouse habitats should completely avoid remaining suitable habitats." Section 3.15.4 contains a discussion on vegetation condition and health.

Comment: Page 3-142, Last Paragraph: "...guidance restricts exploration and development activity within 2 miles of a lek center." It appears that the document is attempting to describe the avoidance area around existing leks in the current RMP which is ¼ mile and not 2 miles. Recommendation: BLM should revise the document to provide a ¼ mile No Surface Occupancy around an active lek and not a 2 mile restriction on exploration and development activity.

Response: Section 3.19.3, Greater Sage-Grouse Habitat Management, in the RMP FEIS has been updated to clarify that existing RMPPA-wide and statewide guidance prohibits exploration and development within ¼ mile of a lek.

Comment: Page 3-139 Preble's Meadow Jumping Mouse Habitat Management and Critical Habitat Management: The discussion regarding the Preble's Jumping Mouse fails to note that the Fish and Wildlife Service has proposed delisting the mouse. 70 Fed. Reg. 5404 (February 2, 2005). Recommendation: The document should be revised to include a discussion of the fact that species has been proposed for delisting. In the event the species is delisted, the habitat may not need to be managed in the manner identified in the document.

Response: Until a final rule is made, the Preble's meadow jumping mouse will continue to be protected and managed as a Threatened Species under the ESA. It is likely that the Preble's meadow jumping mouse would be added to the BLM sensitive species list, if it is removed from the Threatened Species List under the ESA, and protection measures would be implemented to preclude the species' from being listed in the future.

Comment: The periods of weeks and months of closed areas are difficult to visualize and understand. The concurrent and overlapping closures make the window of opportunity to do necessary tasks and work very small. The time and distance closures and avoidance requirements for sage-grouse leks are described, but with no basis to know where and if the restrictions apply at any one time. It is foreseeable to be required to having remote sensing communication to know the real time location of certain wildlife, and the sexual mood they are in, in-order to function on the Public Land. Recommendation: Illustrate on a map the cumulative affect of numerous and overlapping seasonal closures. Show the geographic areas and dates when surface disturbance and disruptive activities are allowed to occur.

Response: Maps 2-35 through 2-38 represent cumulative mitigations by alternative. Species-specific mitigations are presented in Maps 2-53 through 2-57. Attempts to combine these mitigations into a single map resulted in a visually confusing representation.

Comment: Page 2-99, Table 2-5: The table does not identify the acres that would be managed as avoidance areas for white-tailed and black-tailed prairie dogs (see page 2-56 and 2-75). The preferred alternative indicates that avoidance areas for prairie dogs will be imposed above and beyond either a SMA or ACEC designation. Recommendation: Identify the acreage associated with prairie dog towns in the RPPMA

Response: The acreages associated with prairie dog towns on the RMPPA are currently unknown. This information is being gathered and developed and will be available to the public subsequently.

Comment: Wildlife and Fish: There appears to be an inordinate discussion regarding impacts to fish as a result of mineral development. Yet, it is difficult to understand where these conflicts occur. The potential developments are generally far removed from any sports fishery, or even perennial streams and rivers. Perhaps these discussions should be directed to BLM forestry practice and recreation use typically adjacent to perennial streams. Potential impacts should be discussed, and be relative to the resource discussed. RECOMMENDATION: Clarify that there are no known sports fisheries in the areas subject to the vast majority of oil and gas development.

Response: Impacts to fish habitats include those that affect the habitats of native nongame species. There are currently several mineral development projects that contain such habitat.

Comment: [Glossary] Active Raptor Nest Sites: “Any identified raptor nest site that could provide a nesting opportunity for a raptor.” Current scientific studies indicate protections need to be provided only to those sites that have been used within the last 3 years. BLM has provided no justification or analysis for its proposed change. Recommendation: BLM should revise the definition to read as follows: “Any identified raptor nest site that has been used within the prior three years.”

Response: Monitoring conducted on the Rawlins Field Office has shown that raptor nests that had previously been unoccupied for more than 3 years have indeed again become occupied and used by nesting pairs of raptors. This is because of the overall site potential for nesting. Therefore, the current definition in the Glossary will remain in effect.

Comment: Page 2-73, All Alternatives in the Table: “Surface disturbing and disruptive activities potentially disruptive to nesting bald eagles are prohibited within x miles of a bald eagle nest from February 1 to July 15.” There are numerous factors in the field that could influence effects to bald eagles such as topography, nest activity status, prey availability, etc., and BLM should take these into consideration before imposing a mitigation measure. APC also objects to the inclusion of “disruptive activities” in this measure. Recommendation: BLM should amend the language to: 1) remove the term “disruptive activities” and 2) provide that site specific conditions may exist, thereby warranting modification of this distance.

Response: The bald eagle is currently a Threatened Species listed under the ESA. The stipulation referenced by Alternative 1 is currently imposed by the Rawlins Field Office. In circumstances of “dire economic need,” an exception to the stipulation can be requested, and the BLM will analyze the impacts and provide management recommendations.

Comment: For most wildlife species, substantially stronger mitigation measures than those provided in the most protective alternative are needed to ensure the viability of populations within the planning area.

In addition, much more careful management is needed of oil and gas development to ensure that full-field development does not entail complete obliteration of wildlife habitat function for many species of wildlife, as it does under current management and the four proposed alternatives in the DEIS.

Response: BLM feels that proposed mitigation measures when implemented are sufficient to protect wildlife populations. Through monitoring, if mitigation is found to be not working, BLM may apply additional mitigation to protect species and habitat.

Comment: P. 4-215 Second paragraph: The discussion of short term impacts to wildlife habitat in coal mine reclamation also applies to most mineral development, especially oil and gas. Disturbed land is always reclaimed and seeded.

Response: Section 4.19.1, Impacts Common to All Alternatives, Minerals Management, applies only to the impacts from coal mine reclamation in the Hanna Basin area. The impacts to wildlife from other surface disturbing activities are included in other parts of this section.

Comment: P. 4-212 Top of Page, First sentence: "...ROW-approved actions for power lines, communication sites, and wind turbines would also include injury and death to bats, raptors, and other migratory birds as a result of collisions..." Inclusion of this sentence makes it appear that the authors of the 4.19 Wildlife and Fish are grabbing for straws to highlight all possible hazards regardless of significance. Are significantly more migratory birds killed by wind turbines than domestic cats, vehicles, or B-B guns? Are significantly more bats killed at communication sites because the lights draw in bugs that bats chase and they hit towers? Recommendation: Eliminate the quoted sentence; it detracts from an otherwise logical discussion.

Response: It is the intent of this document to inform all readers of potential impacts. The commenter raises a valid concern as to statistical significance. However, there is very little scientific literature that attempts to separate the different causes of mortality for bats and migratory birds, and whether one source of mortality is compensatory or additive to another source. Somewhat in contrast, it is well known that both bat and migratory bird mortality does occur at the sites indicated in the reference sentence, and that issue is sufficiently brought forth in the document.

Comment: Page 2-16, Last Paragraph: "Surface disturbing activities located in potential mountain plover habitat are prohibited...for the protection of breeding and nesting mountain plover." Given that mountain plovers are not a listed species, APC does not believe scientific justification exists to apply seasonal restrictions to habitat, if it can be shown that mountain plover are not using the habitat. Recommendation: See recommendation under ES-14 (page 3).

Response: The mountain plover is currently a Wyoming BLM sensitive species and protected by the 6840 Manual regulations. The stipulation referenced by this comment is currently imposed by the Rawlins Field Office. In circumstances of "dire economic need," an exception to the stipulation can be requested, and the BLM will analyze the impacts and provide management recommendations.

Comment: ES-14, First Paragraph: "Surface-disturbing and other activities...would be avoided in identified nesting and early brood rearing habitat between March 15 - July 15. " The document does not provide the scientific justification for this excessively broad restriction. There must be consideration of whether or not the habitat is associated with an active lek or is actually being used by hen sage-grouse. Again, this is another example of BLM's failure to impose a mitigation measure that is either statutorily required or scientifically justified. Recommendation: The document should be revised to provide that activities will be allowed in sage brush habitat that is not being used by nesting hen sage grouse.

Response: Specific justification for this mitigation measure can be found within the Wyoming Greater Sage-Grouse Conservation Plan.

Comment: ES-14, Third Bullet: “Surface-disturbing and other activities located in potential mountain plover habitat are prohibited...for the protection of breeding and nesting mountain plover.” This restriction is inconsistent with current management practices whereby if a determination is made that the habitats are not occupied then the seasonal restrictions would not apply. The document fails to provide scientific evidence that applying seasonal restriction to all potential plover habitat regardless of use would significantly increase conservation efforts. In addition, this provision fails to recognize that mountain plovers are not a listed species. Recommendation: The language should be amended to indicate that upon a determination that the habitat is not occupied, BLM would not impose the restriction.

Response: The mountain plover is currently a Wyoming BLM sensitive species and protected by the 6840 Manual regulations. The stipulation referenced by this comment is currently imposed by the Rawlins Field Office. In circumstances of “dire economic need” an exception to the stipulation can be requested, and the BLM will analyze the impacts and provide management recommendations.

Comment: ES-13, Last Paragraph: “All white-tailed prairie dog town/complexes greater than 200 acres in size and black-tailed prairie dog towns/complexes greater than 80 acres in size would be avoided, unless appropriate mitigation occurs. White-tailed and black-tailed prairie dogs are not threatened or endangered, candidate or petitioned species under the Endangered Species Act and their populations are not declining. Therefore, BLM should not afford protection levels commensurate with those that would be imposed under the ESA. APC is aware of the ecological importance of prairie dogs; however, the scientific evidence presented is not sufficient to warrant imposing the level of protection identified in this document. Recommendation: BLM should revise the document to provide for management of prairie dog habitat consistent with the U.S. Fish and Wildlife criteria for Black Footed Ferrets (BFF), including avoidance to protect BFF habitat which recognizes burrow density.

Response: Both the white-tailed prairie dog and black-tailed prairie dog are currently managed under the BLM 6840 Manual, which gives direction to manage these species so that discretionary actions will not cause the future need to list them under the ESA. Both of these species are vital for the recovery of black footed ferrets, which are currently listed as Endangered under the ESA. The BLM believes that the prairie dog management and protection outlined in the document are warranted.

Comment: ES Page 13: “Protection of all WTPD towns/complexes >200 acres and BTPD towns/complexes > 80 acres by avoidance unless other mitigation occurs.” Comment: These are not T&E, candidate nor petitioned species. Their habitats are not limited nor are their populations declining. No justification has been provided in the DEIS for the level of protection required in this document. If the intent is protection of suitable Black Footed Ferret (BFF) habitat, it must be clearly stated. This same level of protection is also found in the BLM BMP's (Appendix 1). The use of this restriction must be consistent with the US Fish and Wildlife Service (FWS) BFF criteria and conditioned with “avoidance as necessary to protect BFF habitat” and include a discussion of burrow density. Further, the FWS mailed a “Dear Interested Party” letter dated February 2, 2004 informing the public that BFF surveys were no longer necessary in BTPD colonies statewide or in WTPD towns except those noted in the attachment to the letter. It is unclear whether avoidance of towns/complexes of the above referenced size is based upon a desire to protect ferrets or prairie dogs. If the intent is to protect BFF, it is necessary to adhere to the FWS letter in the DEIS.

Response: The white-tailed and black-tailed prairie dogs are considered BLM Wyoming sensitive species and are currently protected under BLM Manual 6840. In addition, habitat that has the potential to be black-footed ferret habitat is also protected under the ESA.

Comment: Page 2-78, Table 2-1 - Sage-grouse stipulations are inconsistent; stipulations for sage-grouse in the general differ from those suggested for the sage-grouse area east of Hwy 789. Comment: Provide an explanation and/or ensure consistency.

Response: In the Proposed Plan, sage-grouse stipulations are consistent among both sides of Highway 789.

Comment: P. 4-55 Third paragraph: Perhaps this is an oversight, as the Preble's meadow jumping mouse is not a sensitive species. If it is a sensitive species, the closure from August to May could prohibit development, if there are raptor or other wildlife restrictions that cover May to July dates. If the 1,460,000 acres of mountain plover habitat is accurate, it seems illogical that the species is endangered, and total restrictions between April and July are questionable. If any of these areas are in the checkerboard, it will force development on private lands when the surface owners may not welcome development in late spring.

Response: The Preble's meadow jumping mouse is currently protected as a Threatened Species under the ESA.

Comment: P. 2-69 Wildlife and Fisheries-the added emphasis of disruptive activities in conjunction with surface disturbing activities has opened the door to significant additional control regarding wildlife. It is too subjective and too dangerous a tool for agency staff inexperienced in valid existing leases rights, and private property rights. There is no definition for how and when restrictions for disruptive activities will be applied and on what basis. There is no explanation for how this restriction will be monitored or enforced. How does the casual use of a recreational wildlife photographer compare with the casual use of a contract surveyor performing his duty? Will buffer zones be marked? Will sage grouse leks be signed? Will the status of leks and nests be confirmed for every request to enter the public land?

Response: BLM feels that our staff has adequate experience and expertise to implement the action items identified. Definitions of "surface disturbing activities" and "disruptive activities" are available in the Glossary section of the document.

Comment: Page 2-77 through 78, Alternative 4 in Table: "The following would occur...or in identified Greater sage-grouse and sharp-tailed grouse nesting and early brood-rearing habitat outside the 2 miles, or 1 mile buffer from March 15 to July 15." The document does not provide the scientific justification for this excessively broad restriction. There must be consideration of whether or not the habitat is associated with an active lek or is actually being used by hen sage-grouse. Recommendation: BLM should revise the provision to allow activity in sage brush habitat that is not being used by nesting hen sage grouse.

Response: Specific justification for this mitigation measure can be found within the Wyoming Greater Sage-Grouse Conservation Plan. Dates reflect recommendations from the WGFD based on site-specific data from the RMPPA.

Comment: A9-2 It is stated that exceptions may be granted in areas of north slopes, deep snows, etc. that preclude use by wintering animals. In reality, these areas will typically be very limited in extent, and activities in these "ineffective" areas may well disturb animals on "effective" crucial winter range. BLM needs to make a provision that no disturbance will be allowed even on "ineffective" crucial winter range if the "ineffective" range is within the displacement distances shown in Table 3-40. Apparently "mild" weather conditions will allow for the granting of exceptions. BLM should define precisely what "mild" means in terms of temperatures, snowfalls, and lengths of time. Detailed weather data is ubiquitous, so these data are available.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or USFWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests. Page A9-2 contains general considerations for granting exceptions to stipulations, and all exceptions are analyzed on a case-by-case basis.

Comment: 3-140 It is stated that the Fish and Wildlife Service has determined that water depletions “could affect” or “might affect” the Colorado River Species or their habitat. In fact the Fish and Wildlife Service has determined that any water depletion will jeopardize the continued existence of the Colorado River Species (and the Platte River Species) unless depletion fees are paid. Does BLM agree that jeopardy is the correct statement of the effect of water depletions on these species? Why or why not?

Response: If depletions occur, BLM agrees that the USFWS would consider it to jeopardize the continued existence of the Colorado River Species, unless depletion fees are paid.

Comment: In the definition of “Crucial Habitat”, we do not agree that this term should be defined as the range or habitat component related to Game & Fish objective numbers of wildlife because it is our experience that many times, Game & Fish objective numbers are not based entirely on technical criteria. The BLM should have no obligation to reserve forage or habitat for Game & Fish objective numbers determined by political or financial considerations of a State Agency.

Response: Wyoming BLM has a statewide MOU with WGFD, wherein BLM defers to WGFD population goals for big game habitat units.

Comment: 4-141 It is stated that the Recovery Implementation Plan (RIP) includes “action that must be taken” for the benefit of the Colorado River Species. Is BLM implementing these actions? What has it done? What will it do under the new RMP? The actions the BLM will take to implement the RIP and the Recovery Action Plan (RAP) must be specified in the RMP, or an explanation made of why they are not being adopted by BLM.

Response: The BLM considers conservation actions, such as alternative methods of water development, including wells and guzzlers that limit the amounts of surface water depletion (see Biological Assessment for the FEIS).

Comment: Please provide the scientific source for the definition of “Aquatic Nuisance Species”. It is our comment that it is in-appropriate to define this term strictly on the basis of native vs. non-native. Please provide the scientific basis for the definition in this draft.

Response: The definition of “Aquatic Nuisance Species” can be found within the Nonindigenous Aquatic Nuisance Prevention and Control Act, passed in 1990, and subsequently amended by the National Invasive Species Act in 1996.

Comment: The term “Active Raptor Nest Sites” is defined much too broadly by including the concept of any site that provides an “opportunity” for nesting. If a nest is not now, or recently been used as an active nest, how can it be considered an “active nest site”?

Response: Monitoring conducted on the Rawlins Field Office has shown that raptor nests that had previously been unoccupied for more than 3 years have indeed again become occupied and used by

nesting pairs of raptors. This is because of the overall site potential for nesting. Therefore, the current definition in the Glossary will remain in effect.

Comment: 4-243 What is a “moderate impact”? Please define this term so that BLM and the public can understand this impact. For what species does this statement apply to? All of them or some of them? If some species may experience a significant impact, what specifically will be done to reduce those impacts? What types of mitigation specified in Appendices 1, 13, 14, 15, etc. does a “moderate impact” trigger, if any? What types of mitigation specified in these appendices does a significant impact trigger, if any?

Response: The terms “moderate” and “significant” have been removed from the impact analysis, because it is difficult to interpret the overall definitions of these conditions.

Comment: 4-266 It is stated that potentially significant impacts may result to migration corridors. The Wyoming Game and Fish Department has issued new guidance for the protection of wildlife in the face of oil and gas development, and it includes specific guidance relative to migration, corridors. Wyoming Game and Fish Department. December 6, 2004. Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats. 183 pp. Is it BLM's intention to abide by this new guidance? Why or why not? What areas of this guidance (not only with respect to migration corridors) will BLM adopt and which will it not adopt? Please explain why provisions will be adopted or not adopted. Does BLM agree that the Wyoming Game and Fish Department has special expertise in the management of wildlife? It is our view and recommendation the new Wyoming Game and Fish Department guidance be adopted by BLM and made binding on all oil and gas development. It is our view that this guidance should be inserted as a new appendix in the final EIS. Will BLM do this? Why or why not?

Response: The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species from all activities authorized on federal lands, including activities located within pronghorn seasonal ranges and migration corridors. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Seasonal stipulations can be used to reduce impacts from both surface disturbing activities and disruptive activities. The BLM considers WGFD guidelines and recommendations (Minimum Programmatic Standards Recommended by the WGFD to Sustain Important Wildlife Habitats Affected by Oil and Gas Development) to reduce impacts where needed, which is also applicable to individual herd units. The WGFD has identified offsite mitigation practices when habitat functionality is exceeded and identifies actions that are required to reduce impacts to a diversity of species.

Comment: Page 4-242, Seventh Paragraph: “Disruptive activities would be prohibited in Greater sage-grouse winter concentration areas (Map 3-11) from November 15 to April 30.” APC is unable to identify where these areas exist (Map 3-13) nor is a description available of the criteria BLM used to identify these habitats. Under normal winter conditions sage-grouse are quite resilient. It is reported that “Unless snow completely covers sagebrush, severe winter weather conditions have little effect on sage-grouse populations and sage-grouse may actually gain weight during the winter months (J. Crawford, R. Olson et al; Journal of Range Management 2004). Additionally, the WAFWA Greater Sage-Grouse Conservation Assessment points out that winter habitat is not a limiting factor. Recommendation: The document should be revised to state that application of this restriction would be limited to those habitats that are necessary to provide relief during the most severe winters.

Response: Winter habitat is currently being identified and mapped, and the appropriate timing stipulations would be applied when these areas are identified.

Comment: ES Page 14; Mountain Plover - “potential habitat” protected by prohibiting surface disturbance and other activities April 10 to July 10 (breeding and nesting); previously his restriction had been based on identified Mountain Plover habitat and conditioned by use of the habitat by plovers. Comment The language should revert to the language in the FWS plover guidelines.

Response: The mountain plover is considered a BLM Wyoming sensitive species and is currently protected under BLM Manual 6840. In addition, habitat that has the potential to be habitat is also protected under this manual. These protection measures have been identified as part of a proactive approach to wildlife habitat management and were considered when the USFWS determined that this species should not be listed as a Threatened Species.

Comment: A9-3 Reference is made to 43 C.F.R. § 3101.1-4. This regulation provides that exceptions that involve “an issue of major concern to the public” shall be subject to public review. In our view, the Wyoming Game and Fish Department's Mitigation Policy and its new guidelines for oil and gas development per se establish that stipulations for the protection of wildlife are issues of major concern to the public, and thus any exceptions relative to wildlife protections should be subject to public review. Does BLM agree? Why or why not? The RMP should specifically provide that any exception to a wildlife protective stipulation shall be subject to public review.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or USFWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests. If subsequent to lease insurance the Authorized Officer determines that a modification or waiver of a lease term or stipulation is substantial, the modification or waiver is subject to public review for a 30-day period (43 CFR 3101.1-4).

Comment: Mitigations in the Draft EIS Violate WGFD's Mitigation Policy 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 DFPA, species in this category likely to be impacted by the project include the merlin, peregrine falcon, long-billed curlew, western scrub jay; juniper titmouse, bushtit, Scott's oriole, dwarf shrew, white-tailed prairie dog, Great Basin pocket mouse, silky pocket mouse, and swift fox. Big game winter-year long 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.

Response: WGFD's Mitigation Policy was instrumental in identifying appropriate mitigations and BMPs for native fish and wildlife species within the RMP. The RMP does not preclude the specific application of the policy at the activity planning level (i.e., project level). For specific projects, the use of the WGFD's Mitigation Policy, in conjunction with site-specific knowledge of habitat conditions and animal distributions, should result in the identification of biologically meaningful mitigations that help to protect vital and important habitats of native fish and wildlife.

Comment: Appendix 14, Conservation Measures: This appears to be a list of stipulations that will be applied to all threatened and endangered and special status species. No where in the document or

appendices is there any analysis supporting the need for these measures or analyzing whether the measures are statutorily required or scientifically justified. Recommendation: Rather than listing these measures in an appendix, BLM should include them in the body of the document and provide the requisite analysis regarding the need and support for these measures, including an analysis of whether such measures are the least restrictive necessary to accomplish the objective.

Response: Many of these conservation measures are currently implemented by the Rawlins Field Office. The fact that these species are listed under the ESA or are otherwise designated as Special Status, supports the need for the conservation measures. The measures are statutorily required by the ESA and BLM Manual 6840.

Comment: Mitigations in the Draft EIS Violate WGFD's Mitigation Policy 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 Rawlins Field Office, species in this category likely to be impacted by the project include mountain plover, bald eagle, 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.

Response: WGFD's Mitigation Policy was instrumental in identifying appropriate mitigations and BMPs for native fish and wildlife species within the RMP. The RMP does not preclude the specific application of the policy at the activity planning level (i.e., project level). For specific projects, the use of the WGFD's Mitigation Policy, in conjunction with site-specific knowledge of habitat conditions and animal distributions, should result in the identification of biologically meaningful mitigations that help to protect vital and important habitats of native fish and wildlife.

Comment: Add a new summary here, select a category, and if appropriate check the 'Substantive' box. Appendix 9, Exception and Waiver Criteria: "The Wyoming Fish and Game Department (WFGD) has authority to set standards for exceptions and waivers to ensure that requests do not jeopardize wildlife populations." This is an inaccurate statement. Although BLM may consult with the WFGD before granting a waiver, the standards to obtain a waiver are clearly set out in BLM's regulations found in 43 C.F.R. 3101.1-4. Stipulations are subject to modification and waiver only if BLM determines "that the factors leading to its inclusion in the lease have changed sufficiently to make the protection provided by the stipulation no longer justified..." BLM also states that "Professional judgment plays a key part in BLM's decision to grant or not grant exceptions. There is no clear-cut formula." Although a formula may not exist, there is an objective standard as set out in the regulations. Although BLM quotes the applicable regulatory standard at the conclusion of the appendix, the statements preceding it, fail to take the standard into account. Recommendation: BLM should revise the document to correctly reflect the regulatory standards for granting a waiver or exception.

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or USFWS, depending on species, are completed. Exceptions are granted only if conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests. Appendix 9 has been updated to remove the statement, "The Wyoming Fish & Game Dept. (WFGD) has the authority to set standards for exception and waivers to ensure requests do not jeopardize wildlife populations."

Comment: Mitigation measures proposed under the four alternatives of the Rawlins RMP, which are intended to reduce the impacts of development on wildlife and other resources, are too often insufficient to achieve their intended purpose - the reduction of impacts to a level of insignificance: These shortcomings render the mitigation measures in question deficient from a practical standpoint. In addition, the BLM has too often failed to provide any scientific or technical evidence to support the effectiveness of these mitigation measures. These shortcomings render the mitigation measures deficient from a legal standpoint. BLM has an affirmative duty in any environmental analysis 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. § 3101.12 - 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.

Response: BLM feels that proposed mitigation measures when implemented are sufficient to protect wildlife populations. Through monitoring if mitigation is found to be not working, the BLM may apply additional mitigation to protect species and habitat.

Comment: Prairie dog colonies within 7 km of each other should be viewed as a “complex” for the purpose of black-footed ferret reintroduction.

Response: The BLM will consider prairie dog colonies within 7 kilometers of each other as a complex for black-footed ferret reintroduction.

Comment: As BLM recognizes, “Black-footed ferret numbers have been shown to be directly linked to fluctuations in the prairie dog population.” DEIS at 3-138. It is therefore critically important to maintain prairie dog populations in areas currently inhabited or potentially habitable by black-footed ferrets. In addition, black-footed ferrets may be indistinguishable from prairie dogs to untrained observers or at a distance. While mainly nocturnal, ferrets can and do emerge at the surface of prairie dog towns during daylight hours. With these facts in mind, prairie dog shooting should be prohibited in areas known to be inhabited by ferrets or within a reasonable distance that suggests that dispersing ferrets may be present. Such a policy would minimize the chances of ESA “take” of ferrets by prairie dog shooters, which could lead to stiff penalties.

Response: Prairie dog populations are protected in accordance to their Wyoming BLM sensitive species designation. It is the state’s responsibility to establish hunting and shooting regulations, and any restrictions toward the shooting of prairie dogs is therefore the enforcement responsibility of the state.

Comment: While the Affected Environment section of the DEIS contains a section on black-footed ferrets, it fails to provide baseline information on the status and trend of black-footed ferrets within the RMPPA beyond noting that “suitable habitat does exist.” DEIS at 3-138. In fact, there is a wild black-footed ferret population that occurs in the Shirley Basin region of the RMPPA, using lands that include BLM-administered public surface. This population has already survived a sylvatic plague episode among its host prairie dog population. The Affected Environment section of the EIS needs to present the best available population estimates for this population for every year that this data is available, note (at least generally) where these ferrets are known to live, and provide locations for other ferret reintroduction sites within the RMPPA which are currently under consideration for ferret reintroduction. The presence of one of the world’s most endangered mammals should certainly have a strong bearing on the management of the lands on which they are found, and therefore this baseline information is critically important to the

BLM's ability to make sound and well-informed decisions on long-term land management pursuant to NEPA.

Response: Outside of the Shirley Basin population, there are no current population estimates of Black-footed ferrets for the Rawlins Field Office. Therefore, the best available population estimates have been provided by the document. Management consideration is given to the Black-footed ferrets in the management objectives of the prairie dog habitats. It is recognized that prairie dog habitat is potentially ferret habitat. Also, there are areas identified as potential for BFF reintroduction in the Biological Assessment that accompanied the DEIS. These areas are the “non-block cleared” areas within the Rawlins RMPPA.

Comment: Under the Draft EIS, all alternatives appear to rely heavily on seasonal stipulations to “protect” big game crucial ranges. There is no alternative that would put these sensitive habitats off-limits to future surface disturbance. It is important to note that impacts to wintering big game are not limited to the construction phase of oil and gas development, but continue at a significant level throughout the production phase. Stipulations that limit only construction and drilling activities do little to prevent the long-term disturbance and displacement of big game from their crucial winter ranges and calving areas. Thus, these seasonal stipulations are inadequate to prevent major impacts to big game populations on their crucial winter ranges. Crucial habitat is defined as the “determining factor in a population's ability to maintain itself at a certain level” (WGFD 2000).

Response: The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Well density has been used, in addition to seasonal stipulations, as mitigation to reduce impacts to wildlife. The BLM considers WGFD guidelines and recommendations (Minimum Programmatic Standards Recommended by the WGFD to Sustain Important Wildlife Habitats Affected by Oil and Gas Development) to reduce impacts where needed.

Comment: A9-1 BLM is attempting to reduce the protections for big game from a 4.5 month (November 15 to April 1) period to a 2.5 month period (January 1 to March 15). What is the basis for this? Please explain the biological basis for the statement that “The most crucial time period...is usually from January 1 to March 15...” What scientific literature is this claim based on? If BLM has no scientific literature to support this claim and instead is relying on professional opinion, why does it rely on professional opinion here but not elsewhere, such as when making the significance determinations discussed above? Has Wyoming Game and Fish provided any support for BLM's efforts to redefine the period when protective stipulations will “generally” be enforced? Please describe in detail the nature of any such support, whether written or oral. How does this redefinition comply with the Wyoming Game and Fish Mitigation Policy and its new report Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats?

Response: In the Proposed Plan, the big game crucial winter range stipulation period occurs from November 15 through April 30. A critical component of this time period occurs from January 1 to March 15; however, the actual timing stipulation is from November 15 through April 30 of each year. The WGFD has concurred with this timing restriction period. The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species from all activities authorized on federal lands, including activities located within pronghorn seasonal ranges and migration corridors. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Seasonal stipulations can be used to reduce impacts from both surface disturbing activities and disruptive activities. The BLM considers WGFD guidelines and recommendations (Minimum Programmatic Standards Recommended by the WGFD to Sustain Important Wildlife Habitats Affected

by Oil and Gas Development) to reduce impacts where needed, which is also applicable to individual herd units.

Comment: pp_ 4-243; Wildlife and Fish Management; 2nd paragraph Comment: “Avoiding surface disturbing and other disruptive activities...would help to maintain the functionality of aquatic ecosystems for various fish and amphibian species”. The use of the term “other disruptive activities” in conjunction with “the functionality of aquatic ecosystems for various fish and amphibian species” is overly restrictive. We acknowledge the discussion of set backs from surface disturbance but encourage the use of the DEQ Non-Point Source BMP's to mitigate such disturbances.

Response: The discussion of impacts to fish habitat is an accurate representation of the effects of implementing riparian avoidance areas under Alternative 4. Maintaining a sufficient buffer to allow natural hydrologic processes to function within the riparian area would maintain the health of aquatic ecosystems.

Comment: Long term range and game management goals are not clearly delineated for this development area in the Great Divide resource management plan (GDRMP), nor are mitigations outlined to repair or enhance areas that will be impacted thereby. Before additional leasing is allowed, these plans need to be developed and presented for review by federal wildlife management agencies and corresponding state game and fish departments.

Response: The WGFD manages the wildlife species, and the BLM manages habitat in coordination with this agency. The BLM implements mitigation measures, in coordination with the WGFD, when they are identified to protect both the species and their associated habitat.

Comment: : pp, A26-1; Winter Habitats Comment: As currently written and being applied in the field, this seasonal habitat classification could be attached to all sagebrush in areas known to support Sage Grouse. We suggest the BLM apply seasonal stipulation protection to only that sagebrush capable of supporting Sage Grouse during the most severe winter conditions. As stated in the WAFWA Greater Sage-Grouse Conservation Assessment, winter habitat is generally not limiting.

Response: Suitable winter habitat is currently being identified and mapped. This mapped habitat will subsequently be used to inform land management decisions.

Comment: Enlarge the consideration of the cumulative impact that such an extensive development of the various extractive industries, i.e., oil and gas, mineral mining, etc, as well as the other extraneous activities, i.e., pipeline and well inspections, increased human traffic, infrastructure obstacles, etc., will invariably have on the indigenous native species, in particular, the pronghorn antelope, which to this juncture have not been adequately addressed.

Response: The Cumulative Impact section of the RMP contains an impact analysis on pronghorn.

Comment: Page 2-16, Wildlife and Fisheries indicates that Best Management Practices in Appendix 13 would be applied surface disturbing and disruptive activities. Comment: It is our understanding that BMPs will be used voluntarily and selectively to address such concerns. Revise the wording of this paragraph to state that that BMP's will be applied only as applicable and appropriate.

Response: Please refer to page A13-1, third paragraph, third sentence. Therein is the indication of the site-specific nature for application of BMPs.

Comment: Page 2-16, 5th paragraph states, “management will adhere to ESA.” Comment: Candidate and proposed species are not managed under the ESA. Therefore, BLM will not be conferencing/ consulting with the Service on them as stated in Appendix 14. This overview requires revision.

Response: The BLM has the requirement under BLM Manual 6840 to protect candidate and proposed species from further population declines. The BLM has requested recommendations from the USFWS on the management of habitat for these species.

Comment: Page 2-69, Table 2-1 Alternatives 2, 3, and 4: The DEIS specifies that timing limitations will be applied from April 15-Sept. 15 for the burrowing owl and April 1-Aug. 31: for the goshawk. Comment: These are new restrictions and no scientific justification has been provided. Absent a scientific basis, these restrictions are inappropriate and should be removed.

Response: These dates have been identified in coordination with the WGFD and the USFWS and do reflect the required protection measures for these species. These dates are based on research and continued monitoring of the effectiveness of using these types of protection measures.

Comment: pp. 4-266; Elk, 2nd paragraph Comment: The issue of private and state lands (non federal BLM lands) not providing the same level of protection to elk (or any other species) during sensitive seasons is discussed, inferring BLM must provide this protection because others do not. In reality what happens is the BLM forces concentrated development on private and State lands as a result of the overlapping and months long restrictions on the use of public lands for oil and gas development. There may be some opportunities for industry and the BLM to discuss if some voluntary measures could be worked out that would benefit wildlife on both federal and fee lands, subject to private landowner concurrence.

Response: The major oil and gas EIS areas have a diversity of wildlife habitat where there are requests to drill and produce natural gas wells, as well as CBNG wells, on both crucial winter range habitat as well as noncrucial winter range habitat. Companies have numerous well applications approved on a yearly basis that allow them to prioritize development throughout the year to avoid sensitive wildlife habitat areas during critical time periods. Although there are some projects that do have one or more wildlife stipulations attached and require planning for implementation to avoid these time periods, there are others that do not have any wildlife stipulations attached and can be drilled at any time throughout the year. Companies have always had the option to discuss implementing wildlife mitigation measures on private and state lands with appropriate landowners.

Comment: Man-made artificial barriers, i.e., highways, roads, pipelines, fencing, etc., have the effect of fracturing habitat and altering natural movement corridors, almost always to the detriment of the species involved, and this is especially evident with pronghorn. As such, the proposed construction of extensive networks of roads linking well sites, estimated by some at more than 25,000 miles, and the fences which often accompany same pose a great threat to pronghorn if they adversely affect or compromise movements to and from crucial winter or summer range, fawning areas, or other seasonal or weather related movement corridors.

Response: The BLM implements mitigation measures, in coordination with the WGFD, when they are identified to protect both the species and their associated habitats. The BLM has identified and constructed fence types that allow pronghorn to move freely through them, which reduces impacts to this species.

Comment: Page 2-73 Table 2-1: The Bald Eagle nesting set back of 1 mile from February 1 to July 15 fails to provide consideration for site specific factors such as nesting activity status, prey availability,

topography, line of sight, etc. Further, previously an “active nest” was defined as a nest used in the last three years, the new definition is one that “could provide a nesting opportunity”. Comment This broad expansion of the term “active nest” must be revised to reflect use by raptors in the last three years and the setback should be conditions by site-specific factors.

Response: The raptor protection distances are based on the most appropriate protection measure for that species and are identified for that time period. There is also an 825-foot restriction throughout the year for proposed projects that require repeated human presence, which also protects the nesting eagle. An active raptor nest is any identified raptor nest site that could provide a nesting opportunity for a raptor and does not preclude those nests that were used prior to a 3-year period.

Comment: Specific baseline data on those areas crucial to pronghorn, i.e., fawning areas, summer and winter ranges, movement corridors, movement barriers, water resources, etc., should be gathered so as to define these areas and provide for their protection and or mitigation prior to the issuance of any additional leases, developments and or road building.

Response: The WGFD manages the pronghorn and identifies Critical habitat areas, such as fawning habitat, crucial winter range, and other important habitat areas. The BLM updates habitat maps when this information becomes available and implements mitigation measures to protect these species during critical time periods throughout the year.

Comment: pp. 4-242; Wildlife and Fish Management, 7th paragraph Comment: This paragraph infers each lek is a winter concentration area as it references map 3-13. If the BLM knows where the winter concentration areas are or how to define them, it is imperative for this information to be provided. Currently, research is being conducted in an effort to define and describe Severe Winter Relief Habitat for Sage Grouse; this is a more reasonable approach than “winter use areas” or “winter concentration areas,” neither of which is defined in the document. As pointed out in the WAFWA Greater Gage Grouse Conservation Assessment, winter habitats for Sage Grouse are not limiting. We suspect Severe Winter Relief habitats are the justification to identify those critical habitat areas. Until this work is completed, we strongly suggest returning to the previously used Sage Grouse winter habitat avoidance criteria of no disturbance in ephemeral drainages where Basin Big Sage is greater than 3 feet tall

Response: Winter habitat is currently being identified, and the appropriate timing stipulations will be applied when these areas are identified.

Comment: We do support the discussion of sideboards for the “avoidance of all human activity from 6 pm to 9 am March 1 to May 20 being generally limited to 1/4 to 1/2 mile”. On pp. A9-3 (Appendix 9) the restriction is worded as 1/2 mile radius of the lek, different yet again. We are concerned how BLM will enforce this restriction given the availability of lek locations and types of activities that take place before 9:00 am. It is important to recognize that there is a host of activities that occur before this time such as livestock operations, sheep movement, and the need for oil and gas workers to go to work.

Response: The avoidance of all human activity from 6 p.m. to 9 a.m., March 1 to May 20, would be applied as a condition of approval on affected permitted actions.

Comment: The statement is made that: “Proposals for year round surface disturbing and other disruptive activities in seasonally sensitive habitats would not be considered.” This contradicts an earlier statement on Page 4-68, paragraph 1. These proposals should be considered depending upon the mitigation measures provided by the project proponent.

Response: Year-round drilling has been removed from Table 2-1 in the Proposed Plan and will not be considered further. Directional drilling will always be available as a BMP, when it is feasible. However, most of the sensitive habitat within high and moderate oil and gas potential areas also occur within the checkerboard land pattern. Since there are no restrictions on private and state lands, year-round development could still occur on lands in seasonally sensitive habitat.

Comment: pp. 4-216; Transportation and Access Management; 1st paragraph Comment: The statement is made that: “Transportation routes tend to fragment habitats and can act as barriers to some species, especially in severe winter conditions...” This discussion should be revised to clearly illustrate that transportation routes have significantly varying levels of impact depending on the type or class of route in question: For example, I-80 will have significantly different impacts to wildlife when compared to HWY 789, the Dad Road, a well access road or an old ranch two track. We take exception to the last statement in the paragraph that states: “Existing leases within the RMPPA might not provide the specific mitigation measures needed to protect important wildlife habitats, e.g. major highway routes.” Industry has worked with the agency to mitigate impacts associated with its operations.

Response: Section 4.19.1, Impacts Common to All Alternatives, has been updated. See updated text in Chapter 4 of the RMP FEIS.

Comment: pp.4-216; Recreation Management, 1st Paragraph Comment Hunting causes direct mortality to wildlife as do vehicle collisions. As such, this should be disclosed in the document:

Response: The impact analysis has been updated to include direct loss of wildlife resulting from activities occurring on public land.

Comment: pp. 4.215; 4th paragraph Comment: increased legal and illegal harvest are not the result of mineral development, they are the result of humans using available access.

Response: The concept is based on indirect impacts that occur to wildlife species as a result of authorizing actions within and/or adjacent to their habitat. It can be attributed to the “but for” concept where, but for the authorization of drilling and development, there may not be as many humans and associated activities in the area. Poaching and hunter harvest can increase in areas where human activities increase. This occurs indirectly as a result of implementing actions within wildlife habitat areas where human activity has been limited in the past. Roads are built to construct, maintain, and produce wells and pipelines, which can then increase human activity in the area for different time spans.

Comment: Page 2-73 Table 2-1: Threatened and Endangered Species Alt. 3: Not all prairie dog towns are suitable BFF habitat. Comment The set back of 163 ft. (50 m) is justifiable only if the PD town is suitable as BFF habitat. In addition, previously, the stipulation stated the prairie dog town would be “avoided where practical”. We recommend BLM adhere to this language unless the change can be documented as scientifically justified.

Response: There are two components to the protection of habitat for the black-footed ferret as an endangered species: (1) the protection of identified black-footed ferret non-block cleared areas (where black-footed ferret surveys may be required) and (2) an area’s value for survival and recovery for the black-footed ferret through future reintroduction efforts. Therefore, habitat types are protected for these purposes, as well as for BLM Wyoming 6840 species, such as the burrowing owl and the white-tailed prairie dog, that use these habitat types.

Comment: pp. A9-1; “Procedures 1st paragraph Comment: A sentence reads: The Wyoming Game and Fish Department has authority to set standards for exceptions and waivers to ensure that requests do not

jeopardize wildlife populations.” BLM cannot delegate their authority and responsibility to the WG&F. However BLM should work cooperatively with the G&F in reviewing exception and waiver requests as stated correctly in the last sentence of the paragraph. We suggest the 1st two sentences of the paragraph be deleted to avoid any confusion:

Response: Stipulations are required for proposed projects to protect wildlife and associated habitat. An exception request may be authorized; however, field site investigations and consultation with the WGFD or USFWS, depending on species, are completed. Exceptions are granted if only conditions warrant and wildlife will not be affected. Exceptions are not granted if species are present and/or conditions do not warrant. The RFO manager makes the final decision regarding exception requests. Appendix 9 has been amended to remove the statement, “The Wyoming Fish & Game Dept. (WFGD) has the authority to set standards for exception and waivers to ensure requests do not jeopardize wildlife populations.”

Comment: pp. A26-1; Road Management and Closures in Sensitive. Habitat Areas Comment: All references to Sage Grouse must be consistent with the Wyoming Statewide Sage-Grouse Conservation Plan. Currently numerous definitions in the draft RMP are significantly different. The consistent use and application of uniform Sage Grouse terminology will facilitate Sage Grouse conservation. This can be demonstrated by the fact there are 13 lek definitions provided in the RMP glossary. The numerous definitions and the way they are used in the document are confusing. The numerous categories of lek classification provide no certainty to the project proponent as to what constitutes a lek. It is obvious the intent of this lek classification exercise is to provide protection for all leks, regardless of actual use by Sage Grouse. This is overly conservative and restrictive. We suggest using Connolly et al (2000) definitions of lek activity status:

Response: BLM defers the greater sage-grouse definitions to the WGFD grouse definitions under the MOU between BLM and WGFD.

Comment: pp. A26-1; Criteria for Closure, 7th bullet Comment: A reference is made to “Greater Sage Grouse... Winter Habitat and leks.” Closure of roads through Sage Grouse Winter Habitat is not mentioned anywhere else in the draft RMP and as such these criteria should be deleted. We have already commented on the confusing terms used to describe the winter habitat intended for protection. Various terms are used including winter concentration area, winter use area, and winter habitat. A suggestion had been made previously for a term more precisely defining the limited severe winter relief habitat which occurs when areas are used during the periods of deepest snows.

Response: The list is intended to be a set of examples and not highly specific, as additional concerns may warrant spatial or temporal road closures.

Comment: 1st paragraph Comment: The 1st sentence states that the Mountain Plover is an endangered species. The Mountain Plover is not a listed species, since it was determined in 2003 by the FWS that the plover did not warrant ESA protection. Consequently, it is recommended that Appendix 16 be removed from the FEIS.

Response: The mountain plover is currently managed under BLM Manual 6840, which gives direction to manage the species so that discretionary actions will not cause the future need to list the species under the ESA. Appendix 16, Mountain Plover Stipulations, includes measures determined to be appropriate to preclude listing.

Comment: pp. A15-1, 91h bullet, Reducing Impacts To Sage Grouse Habitat Comment: This bullet suggests the partial reclamation of high-standard roads to lower standards necessary for maintenance

operations. It is unclear what types of roads would be classified as high standard roads. Therefore, it is recommended that some clarification of this term be developed.

Response: BLM road design criteria are available through BLM Manual, Section 9113.

Comment: ES Page 14; Nesting Raptors - The setback distances for raptors has changed from 1/2 to 1 miles from Feb 1 to July 31 depending on species to 3/4 to 1 mile from Feb 1 to August 31, depending upon the species. The only justification provided in the draft RMP for this change is the burrowing owl, other species specific justification should be provided. Comment: Previously an “active nest” was defined as a nest used in the last three years; the new definition is one that “could provide a nesting opportunity”. Absent scientific justification, we urge that the broad expansion of the term active nest be changed to reflect use by raptors in the last three years.

Response: Appendix 17, Monitoring and Evaluation, of the FEIS describes the process of monitoring and evaluation, which measures the effectiveness of existing actions through monitoring and application of new scientific research, including that for raptors. This process has allowed the BLM biologists to determine which stipulations are required for the protection of nesting raptors. The process of monitoring and evaluation analyzes current resource conditions as a result of implemented actions and identifies and recommends alternatives or modified action when required. This process provides the optimum means to check the effectiveness of management actions and will vary from year to year based on needs. In addition, monitoring that has occurred in the Rawlins Field Office has shown that nests that have not been used over a several-year time span have been known to become used. For example, there was a golden eagle nest that was used in 2005 but that had not been used since 1998; therefore, nests always have the potential to be used in any given year. Therefore, the BLM will use this definition of active raptor nests in the FEIS RMP.

Comment: “Nesting and early brood rearing habitat” is broadly defined in the DEIS, the BLM IM and the statewide plan. This broad definition was not intended to be used to preclude activity in sagebrush ecosystems not being used by sage grouse.

Response: Mapping of nesting and early brood-rearing habitat for sage-grouse is currently underway. Once this information is available, it will be used to guide the application of appropriate stipulations and mitigations.

Comment: The NAPF would recommend the use of “permissive” fencing if any be required, i.e., fences which allow animal passage, rather than “non-permissive” fencing, i.e., net wire or too high, in all fencing that may be utilized. And further, would recommend that existing fences in the GDRMP area be modified to BLM standards for fencing, wherein a smooth wire is used on the bottom strand not to be lower than 9-11 inches from the ground, and no net wire fence be used at any location in the area. Additionally, fences should have a “take down” capability in locations identified as problematic during extreme deep snow conditions.

Response: The BLM uses proper fence standards for fence construction projects that allow for the safe passage of wildlife species and modifies existing fences to meet these standards when possible.

Comment: The current timing stipulation for nesting sage-grouse is avoidance of the area within a 2 mile radius of a lek from March 15 to June 30. No scientific justification for the extended time line through July 15 has been provided. We recommend it be returned to June 30.

Response: The Wyoming Greater Sage-Grouse Conservation Plan, June 24, 2003, supports the July 15 date. The Plan recommends, “Do not drill or permit new or expanded existing sand and gravel activities within 2 miles of active leks through July 15.” Current science supports the July 15 date.

Comment: It is also necessary for the DEIS to acknowledge that sage-grouse timing stipulations can be modified or eliminated using exception, waiver, or modification criteria when appropriate surveys conclude no sage-grouse activity is occurring.

Response: See Appendix 9 for discussion of exception, waiver, or modification criteria.

Comment: Vehicular access via newly established roads has been demonstrated to be a principal cause of both temporary and extended timeframe dislocations of pronghorn and contributes to an increase in harassment and poaching incidents. We would therefore recommend that new roads be abandoned and reclaimed and or consolidated after well sites have been connected to pipelines and their use be limited to maintenance or monitoring operations. The legitimate use by legal/sportsmen and other recreational users should be confined to certain designated roadways.

Response: See Appendix 15. Restriction of public vehicular access and partial reclamation of high-standard roads needed for project construction to lower standards necessary for maintenance operations are two BMPs that may be applied on site-specific projects.

Comment: Grazing permits should be maintained at the current level and not allowed to return to the maximum allowable AUMs until the impact of these extractive industries can be determined as to their adverse effect on wildlife populations.

Response: An analysis is required and completed on any increase or change of AUMs proposals. All impacts are considered in the analysis, and adjustments are made accordingly.

Comment: Surface water produced by CBM development or other extractive industry development that cannot be re-injected or safely directed to existing riparian areas should be dammed/ stored for wildlife use, assuming that the quality of such water is potable and not prohibitively saline, and all reclaimed lands seeded with high forb/shrub mixture to help mitigate lost forage.

Response: Depending on the location and groundwater resources available, injection is an economically safe and viable option for disposal of produced waters from CBNG. Onshore Order 7, states that injection is generally the preferred method for disposal of produced water (see updated text in Section 1.4 of the RMP FEIS). When the BLM approves disposal of CBNG water by surface discharge, the operator must have a current WYPDES permit with WDEQ to protect beneficial uses of water downstream. At that point anyone that wants to appropriate that water for a beneficial use of such wildlife can file for a water right with the state. All oil and gas wells that are developed must have interim reclamation. This generally allows for the preparation and seeding of up to one-third of the disturbed areas. This seed mixture is generally recommended by the BLM to restore wildlife habitat values or improve livestock forage. After production or if the well will not be produced, the land is typically returned to its original contours and reclaimed.

Comment: The density of wells is directly proportional to the total habitat disturbed, and hence we would suggest low densities to minimize the impact of a well site on any given parcel, thus reducing the adverse effects on the resident pronghorn. The use of lateral/ directional drilling from tightly clustered well site pods has also been shown to minimize the necessity of additional well sites and the roads necessary to access same.

Response: The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Well density has been used as mitigation to reduce impacts to wildlife.

Comment: With respect to other management strategies, in addition to the attached comments by Jim Yoakum, we would also refer to the recently released report by The Wilderness Society which concludes that extensive road development has a profound and deleterious effect on wildlife. This study and report specifically addressed problems in the Pinedale Resources Area, but its implications clearly are applicable in any area with a large road development potential. Specifically, the report recommends: a) road closure plans that meet scientifically derived standards within crucial winter range and migration routes, b) increase the core area for antelope so that it is further than 3,168 feet from a road and reduce road densities to less than 1 mile per square mile, and c) follow all Wyoming Game and Fish Department guidelines for construction of roads, fences, etc., and develop mitigation plans to offset adverse impacts on pronghorn.

Response: The BLM uses BMPs to reduce and/or eliminate potential impacts to wildlife species. At the project-specific level, the BLM analyzes each action and determines which BMPs will be appropriate to reduce these impacts to identified species. Well density has been used as mitigation to reduce impacts to wildlife. The BLM considers WGFD guidelines and recommendations to reduce impacts where needed.

Comment: BLM's approach to big game crucial winter range appears to contradict itself. Under the Preferred Alternative, "Proposals for conducting year-long surface disturbing and other disruptive activities in seasonally sensitive habitats would not be considered." DEIS at 4-242. Certainly, big game crucial winter range and calving areas qualify as "seasonally sensitive habitats." On the other hand, BLM has proposed to allow year-long drilling in seasonally sensitive habitats in cases where clustered development occurs under the Preferred Alternative. DEIS at 2-70.

Response: The BLM is not proposing year-round drilling within the RMPPA. Proposals for conducting year-long surface disturbing and other disruptive activities in seasonally sensitive habitat are not considered in the Proposed Plan in the updated RMP FEIS. Surface disturbing activities would be intensively managed and would be subject to reclamation practices and restrictions to protect resource values. The restrictions in sensitive habitat include, but are not limited to, seasonal restrictions, NSOs, and closures to protect wildlife and habitat during critical time periods.

Comment: I have some serious concerns about the recreational uses allowed on these lands as well. Currently it is acceptable practice to shoot prairie dogs for sport and many public lands are open to decimation from ATV and other motorized uses. I would like to see these activities curtailed and ultimately stopped.

Response: BLM lands are managed for multiple use. Policy and guidance have been created to manage for uses deemed as detrimental to the environment or for those that would compromise public health and safety. IM-2006-042 states that commercial, competitive, or organized group activity of event special recreations permits (SRP) for prairie dog hunts, contests, derbies, etc., will not be authorized in Wyoming. The IM also states that casual sport hunting by individuals of either species of prairie dogs (white-tailed and black-tailed) on BLM-administered public lands in Wyoming will neither be encouraged nor discouraged. Prairie dogs are considered a sensitive species, and the BLM is taking steps to conserve these species. As per BLM's planning guidance (BLM Planning Handbook H-1601 Appendix C), OHV use is managed in areas designated as either Limited to Existing, Limited to Designated, Seasonal use, Closed to OHV use, or Open (refer to Table 2-1 and Appendix 21).

Comment: Page 4-66: Second line: “There would be additional impacts to minerals management activities from NSO stipulations on raptor nests and Greater sage-grouse/sharp-tailed grouse leks. In addition, activity is not permitted at night within one-quarter of a mile of a Greater sage-grouse/sharp-tailed grouse lek from March 1 to May 15.”

Response: The RMP FEIS, Appendix 9, Exception and Waiver Criteria, contains language that describes the exception, waiver, and modification process. Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS describes management actions that would occur as a result of implementing a proposed project within the RMPPA for all activities, not just for oil and gas activities. Wildlife protection measures are implemented when needed and are scattered throughout the RMPPA. Therefore, there may be some projects that require one or more stipulations to protect wildlife and some projects that do not require any stipulations based on their location.

Comment: Page 3-143: Third paragraph; the statement attributed to Lyon (2000) must be conditioned with the information that her study took place over a span of only two years which provides little or no trend information. In addition, while disturbed hens traveled twice as far to nest, they generally moved towards the oil and gas development not away from it.

Response: The reference is only to the statement that predators use roads as a means of travel and is not designed to be used to dispute hen movement to or away from natural gas development. There have been several research projects completed over the years related to disturbance to greater sage-grouse, and documents should be reviewed to identify different opinions on disturbance factors and effects to greater sage-grouse.

Comment: Page 4-213, minerals management section, has narrative about sources of impacts to big game animals, but is concluded with an incorrect reference to Harris (1991) and the remainder of this section provides no estimates for the magnitude of expected impacts. In fact information presented on page 4-214 is misleading. Are acreages listed for total crucial winter range for all big game animals? The acreages of crucial winter range that could be potentially impacted from energy development are meaningless without some idea of spatial arrangement of wells and roads to be placed in these ranges and the timing of proposed activities. Without some idea of which acres of habitat are to be disturbed, it is simply not possible to assess impacts to big game animals. Estimates for lost habitat resulting from well development (7.1 acres per well, p 4-214) are, by the BLM’s own admission, incorrect (Table 3-40). If we accept the 1-mile distance (Table 3-40) as a minimum distance for big game displacement then the area of lost habitat for each well exceeds 2000 acres per well, The DEIS fails to make any assessment of habitat loss resulting from existing or new roads, nor does it consider habitat disturbance from pipeline corridors. Roads and pipeline corridors represent short- and long-term habitat loss and big game will avoid traveled roads such as occur in gas/oil fields, increasing acreages of lost habitat for these animals. Failure to consider this information precludes accurate portrayal of potential impacts to big game animals resulting from implementation of any alternatives presented in the DEIS.

Response: The reference to Harris has been removed, and the impact analysis for big game species as a result of implementing minerals management has been updated in the FEIS RMP. Section 4.19.1, Impacts Common to All Alternatives, Minerals Management, discusses those impacts that may apply to valid existing mineral rights and the associated oil and gas development under all four alternatives. The document states that usable habitat by wildlife will be reduced and wildlife movement will be disrupted. It states that there will be a reduction in usable ranges from avoidance of disturbance, isolation of smaller, less mobile species, a loss of genetic mobility, and an increase in abundance of habitat generalists that are characteristic of disturbed areas. It described the percentage of big game crucial winter ranges that would be directly impacted as a result of mineral development, as well as impacts to contiguous crucial winter ranges that occur outside of natural gas development.

Comment: Page 4-215; Last sentence; This sentence is a more appropriate use of the cites provided than the previously discussed use of the same citations on Page 4-212, but it is misleading in that only the Dantzker cite is about sage-grouse and it should be corrected.

Response: Thank you for your comment and your interest in the Rawlins RMP. All editorial, document content, and document adequacy suggestions will be reviewed, considered, and applied to the RMP FEIS, where appropriate.

Comment: pp. 4-214; Minerals Management; 2nd full paragraph, 3rd sentence Comment; The sentence that begins with “However,” should be deleted since the 5th sentence explains those reclaimed well sites are examples of vegetative succession.

Response: Section 4.19.1, Impacts Common to All Alternatives, Minerals Management, has been updated in the RMP FEIS.

Comment: [These issues need to be considered with respect to those portions of the route that have been fully identified (especially, from south Pass city to bull Springs)]...Wildlife. One of the nationally significant natural qualities of the area is the opportunity to view pronghorn antelope and wild horses. The DEIS should assess the extent to which the adoption of the alternative would adversely affect this important characteristic of the CDNST experience.

Response: The Continental Divide National Scenic Trail would be managed to provide opportunities for trail users to view the diverse topographic, geographic, vegetative, wildlife, and scenic phenomena that characterize the Continental Divide. It would also allow people to observe examples of human use of the natural resources. Refer to Table 2-1 in the RMP FEIS.

Comment: When BLM designates ACECs, or other areas, to protect wildlife, it should ensure they are large enough to protect the species, habitat, or ecological attributes for which the ACEC is created. This is particularly true since many of the special management areas identified in the EIS are for the protection of wildlife.

Response: BLM agrees that ACECs and special designation and management areas need to be large enough to protect the values for which the ACEC was established. The BLM has done this for the ACECs established in the Proposed Plan in the RMP FEIS.

Comment: Winter habitats - As currently written and being applied in the field this seasonal habitat classification could be attached to all sagebrush in areas known to support sage-grouse. We suggest BLM apply seasonal stipulation protection to only that sagebrush capable of supporting sage-grouse during the most severe winter conditions. As stated in the WAFWA Greater Sage-Grouse Conservation Assessment, winter habitat is generally not limiting.

Response: BLM applies protections to greater sage-grouse winter concentration areas to minimize disturbance to the birds each year. This is done in coordination with the WGFD. These protection measures are attached to proposed projects that may be implemented and/or constructed several years after final project approval. Therefore, due to the difficulty of predicting severe winter weather, it is important to apply these measures annually.

Comment: Is it true that there are more than 374 vertebrate species in that resource area? Have there been studies since 1987? For how many of these species do you have population-trend data?

Response: The BLM makes every effort to maintain the most current species list within the RMPPA. As projects are proposed and or implemented within the RMPPA, inventory and monitoring studies are conducted to determine the effects of development on both wildlife and their associated habitat. Trend data is available for some, but not all, of these species. The BLM primarily utilizes species presence and life history and habitat requirements to manage habitat and is less reliant on trend data. Various indices of population size and range are tracked by various wildlife groups and agencies. Information gathered from these groups is utilized, when appropriate, during the analysis of new projects.

Comment: Item: pp. 2-104 and 2-105; Table 2-6 Comment: Acres set aside for each stipulation condition are calculated to be +2,051,000 which greatly underestimates the restricted areas since prairie dog avoidance areas have not been included. It would-be helpful to the agency, as well as the permitted users of the BLM lands, to have a map that illustrates the areas of overlapping and consecutive tinting restrictions. Only when the full impact to the stipulation is known can the BLM make a determination as to the significance of the requirements being placed on the oil and gas industry.

Response: The significance (impact) of the requirements, restrictions, BMPs, and mitigation measures on the oil and gas industry are found in Section 4.8, Minerals in the RMP FEIS. The ultimate impact of all the protective measures within the RMP FEIS is presented through the oil and gas reasonably foreseeable development figures (number of wells anticipated to be drilled under the various alternatives) as found in Appendix 33. The influence of each protective measure and restriction was considered in the development of the oil and gas RFD. The RMP FEIS also presents the influence of the various restrictions through a variety of maps that identify the protection areas for various resources and can be compared to the high and moderate oil and gas potential within the RMPPA as found on map 4-7.

Comment: An area approximately 48 miles long by 24 miles wide is designated as a sage grouse "limitation" area for oil and gas development (Map 2-57). Are the "limitations" only those listed in Table 2-1, or is it BLM's intention to further limit development in this area?

Response: The limitations are applicable to the Rawlins-to-Baggs Geographical Area which was identified in Alternative 3: Emphasis on Protection of Resources. All goals and objectives and management actions identified under this alternative would apply, as appropriate, to all uses occurring within the area.

Comment: The DEIS contains both seasonal and spatial wildlife mitigation guidelines. Site-specific evaluation as to whether they are appropriate to a specific project is essential. [see letter for graph of overlapping restrictions] It is apparent that overlapping big game, sage grouse, raptor and mountain plover seasonal restrictions could limit the opportunity to develop the energy resource to as short as 2-3 months annually or, at BLM discretion, could operate as a "no surface occupancy" restriction. Such a restriction applied to an existing lease containing no such restriction would be contrary to contractual rights.

Response: BLM is well aware of, and takes into account, existing oil and gas lease rights. At the time oil and gas leases are available for sale, all applicable seasonal and spatial restrictions (as stipulations to the lease) are attached to the lease. It is highly unlikely that all stipulations would apply to an individual well location within a lease. For example, if an area provides mountain plover nesting habitat, then it would not provide habitat for nesting sage grouse. In addition, it should be noted that during individual onsite analysis of proposed projects, additional restrictions as "conditions of approval" may be added and/or deleted based on current resource information.

Comment: Page A9-3 Grouse: first partial paragraph, first sentence, regarding the controlled use stipulation "within a 1/2 mile radius of active strutting grounds." Comment: We repeat our request for consistency in determining the avoidance area, see comment page 4-242, paragraph 6.

Response: The text has been updated to clarify that the ¼ mile surface use restriction applies to active strutting grounds. See the updated text to Appendix 9, Exception, Modification and Waiver Criteria, General Considerations for Granting Exceptions to Stipulations, Columbian Sharp-tailed and Greater Sage-Grouse in the RMP FEIS and the revised text in Chapter 4, Section 4.19.5, Impacts Under Alternative 4, Proposed Plan.

Comment: "BLM is a participant in the Wyoming Partners in Flight, and specific biological objectives and recommendations for land birds are presented in the Wyoming Bird Conservation Plan." DEIS at 3-128. While the Appendices seem to indicate that the Partners in Flight objectives and recommendations will be adopted into the Rawlins RMP, these should be explicitly carried into the plan formally as nondiscretionary standards.

Response: BLM supports Partners In Flight's Wyoming Bird Conservation Plan and, when feasible and applicable, applies objectives and recommendations from the plan to management plans and activity plans for actions occurring on the public lands.

Comment: To further mitigate the impacts from the significant oil and gas developments that are being planned for the Rawlins Resource Area, the BLM should also designate, as part of the RMP revision process, multiple Areas of Critical Environmental Concern (ACECs) to protect at least 90% of sage-grouse winter use areas. The boundaries of these areas should follow the results of Recommendation #1 (Winter) on page 4. These areas will be critical to maintaining population persistence over time.

Response: Please see the revised text in the RMP FEIS, Section 2.2.3 Alternatives and Management Options Considered But Eliminated From Detailed Analysis - Consideration of Additional Areas as Areas of Critical Environmental Concern. Grouse winter concentration areas were evaluated for relevant and important values and a determination was made that these areas did not meet the relevance and importance criteria for consideration as an ACEC.

Comment: 2-68 Appendix 8 does not define what DPCs are in any given area. A DPC should be defined to meet a clear wildlife management goal, such as, maintaining sage grouse populations. If DPC is to be used to support wildlife management goals, then the DPC must be tied to some goal related to wildlife that a particular plant community can help achieve. Appendix 26 has nothing to do with DPC, although it may well be useful for protecting wildlife, if it is made binding in some way. On page 3-105, it is stated that DPC is "determined on a site-specific basis." While we can appreciate that detailed determinations of what plant community might be desired need to be made on a site-specific basis, this should not be a barrier to providing some indication of what type of plant community is desired at the planning level. Ecologists have developed many layers of specificity for defining plant communities, and BLM should define DPC at the planning level using an appropriately broad definition of the specific DPC it desires, which can be refined or even changed at the site-specific level. But fundamentally, if BLM provides no indication of what it is seeking to achieve relative to wildlife habitat at the planning level other than a totally vague statement that is akin to "we support motherhood and apple pie," it has failed to meet its duties under NEPA and FLPMA.

Response: Refer to the glossary definition of DPC and updated text in Section 3.15.4, Vegetation Health of the RMP FEIS concerning achievement of rangeland health and DPC.

Comment: In the definition of "Undetermined Lek", what would be the status/definition of a lek that has been monitored every other year for a 10 year period, and had not contained active lek activity during those alternate years of inspection? Also, where is the source of the authority of the BLM to apply management protection to leks for which there is no data on which to classify the status of the lek?

Response: A lek that has been monitored every other year for a ten-year period and found not active in those years, is still considered an "Undetermined Lek," and would still be provided protection until the status is documented as unoccupied. The source of the authority comes from the BLM Manual 6840-Special Status Species Management.

Comment: The DEIS does not clearly identify a strategy to avoid disruption of existing high-quality sage-brush habitat that may be outside of lek-center buffers. EPA recommends that a high priority be placed on identifying large areas of established sage-brush communities with the intention of designating some of these areas as future sage-grouse habitat.

Response: The BLM will prohibit surface disturbing and disruptive activities within two miles of the perimeter of a greater sage-grouse lek or within identified nesting or early brood-rearing habitat outside of these lek buffers, from March 1 to July 15. The RMP FEIS utilizes a strategy of identifying and then implementing a diversity of BMPs to identify specific actions that would be used to reduce and or remove potential impacts to greater sage-grouse and associated habitat after projects are implemented. The BLM will utilize aerial photographs and ground-truthing, as well as monitoring, to identify these areas outside of the two-mile buffer, designate habitat, and then implement protection measures for these species.

Comment: Roads are another important factor that threatens the survival and recovery of the Colorado River cutthroat trout. A number of studies point out that roads are one of the most important causes of trout habitat degradation, and that habitat damage a water quality degradation are unavoidable consequences of road construction (Rhodes et al. 1994, Henjum et al. 1994, NMFS 1995, USFS and USBLM 1997a,b). This damage persists over the long term and is difficult to reverse (Furniss et al. 1991, Rhodes et al. 1994, NMFS 1995, Espinosa et al. 1997). Habitat damage resulting from road construction also has the indirect effect of granting competitive advantages to introduced species at the expense of native trout (Behnke 1992, Duff 1996). Road construction effects can also increase water temperatures (Meehan 1991), which can help brook trout to permanently displace native cutthroats (Behnke 1992). As a result of these factors, a number of scientists agree that reductions in the extent of road networks are essential to protecting and restoring trout habitats (Henjum et al. 1994, Rhodes et al. 1994, USFS and USBLM 1997a). This is a particularly important consideration when evaluating potential oil and gas projects in watersheds that contain populations of Colorado River cutthroat trout.

Response: Potential negative impacts to fisheries from roads are discussed in section 4.13.16. Construction of roads occurring on BLM lands would follow policy and procedures for proper road design (BLM Manual Section 9113 Road Standards). Road placement and construction would be considered on a case-by-case basis. Best management practices and mitigation measures would be implemented to reduce impacts to water quality.

Comment: Colorado pikeminnows may imprint on the chemical signature or scent of a waterway as a means of navigating to traditional spawning areas, much like Pacific salmon (Muth et al. 2001). Tyus (1990) also implicated olfactory orientation as the likely method of navigation, noting that "the presence of springs and other water inputs in the two spawning reaches may have provided olfactory cues" to pikeminnows (p. 1044). Wastewater discharge that enters the Little Snake system directly or via groundwater would alter the chemical signature of the water; this must not be allowed.

Response: The last documentation of a T&E fish species in the Little Snake River was of a single Colorado pikeminnow in 1990 (Baxter and Stone 1995). These species are not likely to occur in Wyoming. Critical habitat for these species has not been designated in Wyoming (Upper Colorado River Endangered Fish Recovery Program 1999). Impacts to T&E, BLM sensitive, and other fish species from surface discharge would be considered on a case by case basis. Actions permitted by the BLM would adhere to state water quality standards.

Comment: The discussion of impacts from ground water extraction associated with oil/gas and CBM development is also inadequate. There needs to be some discussion of just what will happen to water tables in this already arid environment and some idea about impacts to surface water quality and areas for water disposal. Removal of water from wildlife habitat that could result from lowering water tables would have significant impact to wildlife. Addition of water to habitats could be an improvement for big game animals, but also could negatively impact populations by concentrating wildlife, feral horses and domestic livestock on limited ranges. This would be especially true if animals were concentrated throughout the year on limited winter ranges.

Response: Impacts to wildlife, due to the addition of coal bed natural gas produced water released to surface systems, is addressed in the RMP FEIS, Section 4.19 Wildlife and Fish. Section 4.17 Water Quality, Watershed, and Soils contains analysis of impacts of surface discharge of coalbed natural gas produced water to hydrologic systems. Not all impacts can be addressed at the land use planning level. Impacts to surface waters and water tables would be addressed in specific project proposals through adequate NEPA analysis at the activity plan level.

Comment: Page 4-212; Lands and Realty Management; first partial paragraph/last sentence: "For example, this would reduce reproductive success of greater sage-grouse by interfering with the ability of female sage-grouse to locate leks." Comment: These are inappropriate citations for the point being made and the stipulations being justified, the sentence must be deleted. Specifically: (1) The LaGory Paper is entirely about songbirds and the results were less than conclusive (Quoted from the summary: "The apparent effect of this noise (compressor noise) on adjacent bird communities was complex and differed among species. Approximately the same number of species and total number of birds observed on control and treatment sites was similar. At least one species, the house finch, nested on well equipment even when a compressor was operating. Our study detected significant differences in the numbers of some species on control and treatment sites that appear to be related to noise levels. In general, treatment sites appeared to have fewer birds per species than did control sites, but this difference was not statistically significant." (2) The Dantzker Paper is a complete study of the acoustical characteristics of male sage-grouse vocalizations, but nowhere in the paper is it suggested or implied that outside "noise might be adversely affecting strutting and nesting grouse," as it is stated on page 4-215 of the DEIS. In fact, this paper strongly suggests that male vocalizations are not directed to hens off of the lek (so they can find the lek), but are directed to hens on the lek. The report indicates, "When a sender knows (or can estimate) the location of its intended receiver, the signaler can reduce the cost of eves dropping by predators and competitors by turning so that the peak of its beam pattern corresponds to the position of the receiver. The signaler can then produce just enough acoustic power to signal effectively to that individual." [Emphasis added]

Response: The BLM removed the LaGory reference pertaining to songbirds associated with compressor station noises since the paragraph specifically discusses greater sage-grouse leks. In addition, the Dantzker reference was removed because this reference specifically addresses noise impacts at the lek and the FEIS RMP discusses both on-site and off-site noise impacts to strutting grouse. The BLM applies seasonal restrictions (stipulations when applied to an oil and gas lease) to protect a diversity of wildlife species during critical time periods throughout the year. Wildlife seasonal protection measures are identified based on a combination of field site evaluations, experience and consultations with either the

Wyoming Game & Fish Dept. or the US Fish & Wildlife Service. In addition, BMPs are applied to reduce and/or remove disturbance to wildlife and associated habitat. These actions would ensure the long-term viability of wildlife and protection of habitat within the RMPPA. Exception requests would be considered for approval only following site specific field evaluations and consultation with either the Wyoming Game & Fish Dept. or the US Fish & Wildlife Service, depending on the wildlife species of concern, and is described in Appendix 9 in the RMP FEIS.

Comment: pp. 4-155; 4.13.17.1; WTPD Area Comment: There are statements in the DEIS that state the negative impact on White-Tailed Prairie Dog (WTPD) habitat. Oil and gas development activities are known to enhance WTPD populations by creating disturbances that they exploit. These areas include reclaimed well sites and pipeline corridors. Wyoming has many examples of stable to increasing WTPD towns with existing linear facilities that provide Raptors perching opportunities, such as electrical service and fences.

Response: White-tailed prairie dogs have been observed creating burrows and/or towns in previously disturbed areas and appear to adjust to disturbance caused from proposed projects in some areas of the field office. Prairie dog towns appear to grow in size in some areas while decrease and/or become abandoned in other areas throughout different time periods. These changes are based on disease, disturbance, hunting, predation, environmental conditions, and other factors that create and/or disturb suitable habitats for these species.

Comment: pp. 4-66; Impacts under Alternative 4; eighth full paragraph/last line: This is unnecessarily restrictive. WTPD are not at risk, not listed and not warranted for listing, their habitat is not limited and their colonies shift over time. It is unwarranted for the BLM to spend valuable resources imposing this level of protection on WTPDs.

Response: White-tailed prairie dogs have been identified as a BLM 6840 State Sensitive Species, as well as a keystone species for a diversity of other wildlife dependent upon prairie dog towns as a habitat type. Therefore, intensive management is required to minimize adverse impacts to this important habitat type along with the suite of dependent species. Although the species was found not warranted as a threatened or endangered species, its habitat type is crucial for those species that are protected under the BLM 6840 State Sensitive Species policy.

Comment: The term "Abandoned Lek" does not contain a citation as to its origin in the published literature. As such, the definition of this term is new to ourselves and appears to contain arbitrary criteria.

Response: The term "Abandoned Lek" comes from definitions established and agreed upon by both the BLM and Wyoming Game and Fish Department. The source of the authority comes from the BLM Manual 6840-Special Status Species Management.

Comment: Please provide the scientific support for the percentages shown in the definition of "Conservation Population".

Response: Percentages shown in the definition of "Conservation Population" were adopted by the Colorado River cutthroat trout conservation team (UDWR 2000). This genetics position paper recommends percentages for a unified approach to quantifying introgression. Reference: UDWR. 2000. Genetic considerations associated with cutthroat trout management. Publication number 00-26. Utah Division of Wildlife Resources. Salt Lake City, Utah. 9 pp.

Comment: pp. 4-214: Last paragraph Comment: The statement that "Surface disturbing and other disruptive activities associated with pad construction will increase sediment delivery..." does not reflect

that Best Management Practices that can be used for sediment control (please see our earlier comment on BMP's in the water section): In addition, the BLM has setback requirements and construction specifications which will limit the opportunity for sediment transport. This statement should be revised to reflect these measures.

Response: Please refer to the impact analysis in Section 4.17, Water Quality, Watershed, and Soils Management. Sediment delivery from properly constructed roads and pads with full consideration of BMPs would still occur under all alternatives.

Cumulative Impacts

Comment: Cumulative Impact Analysis - As currently written, this DEIS provides little insight regarding cumulative impacts resulting from implementation of any alternatives. There is no consideration of impacts potentially resulting from the combined activities associated with development of oil and gas, livestock grazing, increased recreation demands including traffic, and vegetation treatment in the planning area. Additionally the combined effects from activities occurring on both public and private lands have not been considered. As presented, the reader cannot evaluate the cumulative impacts for any alternatives. Here again, I suggest that application of past experience, GIS technology and the scientific literature would result in a cost-effective and more realistic portrayal of impacts resulting from implementation of any alternatives suggested in the Rawlins RMP/DEIS.

Comment: Cumulative Impacts, current condition of resources. The RMP states, “Effects of past actions and activities on resources are manifested in the current condition of the resources, which is described in Chapter 3 (Affected Environment) for resources on lands administered by BLM within the RMPPA.” Unfortunately, the RMP, specifically Chapter 3, does not provide a satisfactory inventory or quantitative description of the current condition of resources within the RMPPA. This is a fatal flaw in the RMP analysis, and would preclude any meaningful cumulative effects analysis. [Page 4-243, Section: 4.20]

Response: Some commenters questioned the adequacy of the cumulative impact analysis. Generally, they contend: BLM failed to consider non-BLM actions within the RMPPA; BLM failed to consider actions outside the RMPPA that have effects inside the RMPPA; and the cumulative analysis itself was incomplete, not quantified, and poorly done. BLM revised the cumulative impacts narrative in Sections 4.20–4.20.2 to clarify the approach and scope of the cumulative analysis for this RMP Revision. BLM also reviewed non-BLM actions within, and all actions outside of, the RMPPA. All Cumulative Impact Analysis sections were updated to include consideration of the expanded past, present, and reasonably foreseeable future actions (Tables 4-5 and 4-6) in the RMP FEIS. Planning analyses are broad and qualitative, rather than quantitative and focused on specific actions. If this analysis did not meet your expectations, please remember that BLM will conduct NEPA analyses on implementation actions, such as oil and gas field development, allotment management plans, and public land use authorizations. These activity plan level analyses will tier from the land use planning analysis and extend the cumulative analysis using information from any specific project proposal. You will have the opportunity to participate in the environmental analysis for these actions.

Comment: I feel it is your responsibility to take into consideration the environmental ramifications of the policies you consider, and opening up 90% of this unique ecosystem is not only irresponsible to the habitat you will help destroy, but on a greater scale, to overall health of our environment as you will be further helping oil industry to set a precedent that they can go wherever they please and churn up our national wild places at will.

Comment: The BLM plan presents an unacceptable amount of irreversible and irretrievable commitments of resources 4.21.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: I am on your mailing list and frequently receive notices that you have studied some projects and find it has “NO SIGNIFICANT IMPACT.” Even, I as a lay person, know this statement is false. Each new well or section of new road may have minimal impact but, it seems you ignore the cumulative effect of all the roads and wells. I would like an answer to this concern: How can you possibly say that many

miles of new road and thousands of new wells will have no significant impact on the ecology and pristine nature of this area?

Response: Chapter 4 in the RMP FEIS includes the impact analysis of management actions on the environment, and where those impacts are determined to be significant, it is so noted.

Comment: 2-70 BLM needs to describe in detail how it will determine if cumulative impacts from the “proposed activities” will allow for year-round drilling. What does this mean? If five wells are proposed to be drilled year round there will likely be little cumulative impact, but if five wells are proposed for drilling this year and five next year, and five every year for 20 years, impacts could be severe. And of course if the first cumulative impacts analysis only included five wells, but the next 50 wells, and the one after that 500 wells, then great impacts could result. So, BLM needs to define very carefully how cumulative impacts will be determined, and how it will ensure the impact analysis is not “segmented” into such small components significance is never indicated. This is a prime example of a situation where the provisions at 40 C.F.R. §§ 1502.22 and 1502.24 should be adhered to, including recognition of impacts with “catastrophic consequences, even if their probability is low,” and BLM should commit to ensuring such analyses are conducted before any year long drilling is authorized

Response: The management action, which addresses the potential for year-long surface-disturbing activities to occur in seasonally sensitive habitat, has been removed from the Proposed Plan in Table 2-1, Detailed Comparison of Alternatives, and the impact analysis of that action has been updated in Chapter 4 of the RMP FEIS. The potential for year-long surface disturbing activities to occur in seasonally sensitive habitat is discussed under Alternative 2.

Comment: throughout the EIS BLM attempts to evade presentation of any data on issue after issue (generally hiding behind the fact this is a planning level document and claims BLM knows little or nothing about either the projects or the potential impacts of the projects at this stage of things, despite having managed these lands for decades, and despite the information presented in Appendix 33), and fails to provide any explanation of why the data is not available. This too violates NEPA. Id. at 1032 (holding that withholding of information violates NEPA, which requires “up-front disclosure of relevant shortcomings in [] data or models.”).

Response: The BLM land use plan (RMP) is BLM’s highest level of decisionmaking specific to land and resource use allocation. The RMP is not an activity or project-specific level analysis tool. At this highest level in the BLM planning process, the RMP will prescribe the allocation of, and general management direction for, the resources and land uses of BLM-administered public lands within the entire RMPPA. RMPPA-wide estimates of reasonably foreseeable development and actions for the entire RMPPA have been made both in the Methods and Assumptions section of Chapter 4 and in Appendix 33, Reasonably Foreseeable Developments and Reasonably Foreseeable Actions (RFD/RFA) Tables, in the RMP FEIS. Where project-specific information is available from past or currently planned projects or site-specific project proposals, that information was considered in developing the Assumptions for Analysis and the RFD/RFA.

General Comments

Comment: We're extremely disappointed that the BLM has rejected the West Heritage Alternative outright. Their basis is fully erroneous and a serious letdown to the public and especially the thousands and thousands of public citizens who have already commented in support of this alternative.

Comment: I am opposed to commercial extraction from our public lands. I enjoy visiting our public lands in Wyoming. The least you can do is adopt the Western Heritage Alternative for a revised Great Divide Plan that will at least balance industrial uses of our public lands with the needs of public recreation, clean air and water, and desert wildlife.

Response: The Western Heritage Alternative was determined to not be a reasonable alternative because of, among other things, the excessive acreage of NSO restriction proposed in the alternative. See updated text in the Rawlins RMP FEIS, Section 2.3.3, Alternatives and Management Options Considered But Eliminated From Detailed Analysis, Western Heritage Alternative.

Comment: I urge you to take a longterm perspective and protect these special areas of our national heritage for the health of our environment, for the wildlife who are increasingly being displaced and driven to extinction, for our spiritual health, and for future generations.

Comment: As we give our public comments, you have asked us to be specific rather than to state broad philosophical views. Frankly, that takes a level of expertise that few of us have. We know what we want; clean air, clean water, healthy lands, opportunities to recreate, protection of our abundant wildlife, our scenic vistas, and the extra special places we treasure. But, we expect you, our professional land managers to not only know how to protect those values for us, but to be competent architects of a Resource Management plan that will reflect “our” vision.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: This lack of balance short-changes all other appropriate uses of these lands. The BLM is required to manage our lands for Multiple Uses. What I see in this planning document is the virtual exclusion of all uses other than energy development. That would make this draft plan illegal as well as unethical.

Comment: I want to express my concern with the Bureau of Land Management's draft RMP because I believe strongly that this plan is completely unbalanced. It unfairly favors industrial development at the expense of the Great Divide Country's wildlife, wild open spaces, recreational areas, historic and sacred sites, and clean water and clear air.

Response: The BLM manages public lands for balanced multiple use. The term “multiple use,” as defined in FLPMA means “the management of the 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.” This direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP FEIS reflect this provision. Not all areas would be open to all types of uses in the RMPPA. Additionally, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (see Summary of Changes between RMP DEIS and RMP FEIS at the beginning of each chapter in the RMP FEIS). The RMP FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the RMP FEIS that allows opportunities for mineral exploration and development and

for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands (see Section 1.4, Relevant Statutes, Limitations, and Guidelines in the RMP FEIS) and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility, to ensure that resource values are protected while allowing for acceptable levels of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents.

Comment: I'd like to emphasize to the BLM - LISTEN to the public input and act accordingly. I hope there is not a predetermined outcome to this issue of managing this huge tract of public land. Once these fragile ecosystems are damaged, healing is slow to come.

Response: As required by the BLM planning regulations, BLM provides opportunity for the public to provide input into the planning process. Scoping, input of local, state, and other Federal Government cooperating agencies during development of both the DEIS and FEIS, the 90-day comment period following release of the RMP DEIS, the 30-day protest period following release of the RMP FEIS, and the 60-day Governor's consistency review of the Proposed Plan are all comment opportunities that provide the public with an avenue to input thoughts, ideas, and issues into the BLM planning process. All comments are considered, regardless of the length of the letter, residence, or affiliation of the commenter, etc. Plan implementation decisions also are open to review by interested and affected parties during site-specific project level planning and analysis.

Comment: The Rawlins RMP DEIS presents an extremely narrow range of alternatives; indeed, in many respects, the alternatives are so close to each other to make it hard to discern a significant difference. Each of the four alternatives presented places far too much emphasis on oil and gas development, and each of the four alternatives neglects other multiple uses and resources, including public recreation, archeological and paleontological resources, visual resources, wildlife habitat and welfare, water quality, air quality, to an unacceptable degree.

Response: As described in the CEQs 40 Most Asked Questions on NEPA Regulations, Question 2a., CEQ expands on the guidance in 40 CFR 1502.14, "...In determining the scope of alternatives to be considered, the emphasis is on what is 'reasonable' rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable..." Alternatives developed for analysis in land use plans must also comply with this guidance. The alternatives in the Rawlins RMP FEIS conform with FLPMA, NEPA, and BLM planning guidance. The requirements to develop alternatives under 40 CFR 1502.14(a) include both alternatives analyzed in detail and alternatives analyzed but eliminated from detailed study. Alternatives were formulated with consideration of multiple-use provisions in FLPMA; systematic, interdisciplinary planning provisions of NEPA; and other significant guidance listed in Section 1.4, Relevant Statutes, Limitations, and Guidelines, found in the Rawlins RMP DEIS and FEIS. Alternatives were objectively evaluated and some were analyzed in detail, and others were eliminated from detailed study for various reasons. Included in the consideration of alternatives was the understanding that decisions made in the previous RMP (Great Divide RMP) greatly influence what types of alternatives would be considered reasonable. Previous decisions to allow fluid mineral leasing and approve exploration and development of the oil and gas resources preclude consideration of an alternative to eliminate or drastically curtail development in an area because of existing lease rights and legal obligations and commitments made by the United States. (BLM Manual 1601.06[G]) BLM has provided a reasonable range of alternatives. Each alternative represents an alternative means of satisfying the identified purpose and need and of resolving issues. The range of alternatives began early in the RMP planning process, starting with the public

scoping period and was further developed throughout the planning process, in coordination with our cooperating agencies, and during the public comment period on the RMP DEIS.

Comment: National Security: The draft RMP does not address the national security implications with respect to lands within the plan area, more specifically to pipeline corridors, major reservoirs, oil and gas wells, and power and fiber optic lines. In lieu of recent terrorists attacks, BR recommends that BLM amend the document to consider such threats.

Comment: The Red Desert is a natural extension of Yellowstone National Park, formed millions of years ago from the volcanic upheavals in Yellowstone. Please reconsider the protection boundaries in the Great Divide Plan.

Response: BLM thanks you for your comment. However, the content of the comments is not within the scope of the Rawlins RMP planning process.

Comment: Why do you continue to insist on letting oil and gas companies devastate our lands and our country? Why not insist on new forms of energy to be looked into?

Comment: We have the following comments regarding the treatment of alternative energy sources in the EIS, principally wind energy. Special care is needed as BLM moves forward with the development of the wind power on BLM lands. While we support the development of wind power sources, they can present environmental risks. A conflict can exist between wind power development and some conservation priorities. Wind energy development should be facilitated wherever possible but must be subject to the same high standards of environmental sensitivity to which other industrial uses are subject. In this regard, we ask that BLM consider the information at <http://www.defenders.org/habitat/renew/wind.html> relative to means to reduce the environmental impacts of wind energy development and adopt these provisions in the final EIS, and make them binding requirements for wind energy development. Will BLM do so? Why or why not?

Response: The Rawlins RMP FEIS includes management actions that address potential wind energy development. No other proposals or RFD of solar, geothermal, or bio-fuels have been received or anticipated. No new coal development proposals in areas not currently approved or acceptable for further leasing consideration are reasonably foreseeable. Coal development will be considered in greater detail if and when applications for future coal development are received.

Comment: I hope you will continue to consider removing the restrictive language regarding disruptive activities from the Preferred Alternative before the BLM adopts this plan. The current definition of disruptive activities is too broad and could endanger the project feasibility of many oil and gas projects inside the Rawlins Resource Management Plan Planning Area.

Response: The term or concept of “disruptive activities” as part of management actions and impact analysis considers the nonsurface disturbing impacts of human activities conducted on the public lands. The use of the term “disruptive activities” and management actions, stipulations, BMPs designed to reduce impacts from disruptive activities are not intended to preclude authorized activities but influence how they are accomplished. Management actions to reduce disruptive activities in sensitive areas found in Appendix 15, Best Management Practices, are designed to reduce the impacts caused by continued human presence in areas of sensitive habitat or resources. This increased emphasis on disruptive activities is the result of monitoring results and professional opinion that increased human presence, caused by increased industrial development, and recreational activities, among other activities, has caused increased levels of stress to wildlife and increased avoidance of preferred habitat. See the updated definition of “disruptive activities” in the Glossary of the RMP FEIS.

Comment: We must take the long range view when considering development of public lands - it is, as we all know, just for a short term profit that we do large-scale oil and gas development. We need to think about the long-term health of our environment that we could sacrifice even when we know that alternative energy sources are what have to be in our future.

Comment: Please choose the plan that limits man's intrusion, nurtures the wildlife and saves most of the natural gas as a resource for future generations, hopefully with better technology, to develop for their needs. And if wind and solar energy dramatically reduce the need for this natural gas - all the better.

Response: The BLM Mission Statement can be found on the inside front cover of the FEIS. The mission of the BLM as well as the BLM's charge to manage the public lands on behalf of the American people is embodied in all of the laws passed by Congress, laws which include direction to manage the use of public land resources and protection of sensitive resources both for the benefit of the American people now and in the future. The Rawlins RMP FEIS includes management actions that address potential wind energy development. No other proposals or RFD of solar, geothermal, or bio-fuels have been received or anticipated. No new coal development proposals in areas not currently approved or acceptable for further leasing consideration are reasonably foreseeable. Coal development will be considered in greater detail if and when applications for future coal development are received.

Comment: Many cooperators felt that there was a predetermined outcome for the preferred alternative and that, relative to the final EIS, no involvement or information by any cooperator was going to change the outcome. This is disconcerting and flies in the face of public and cooperator participation. Although I recognize that the final decision is the responsibility of the BLM, I believe that important information was and is being brought to the BLM's attention throughout the plan revision process. If the information were being adequately incorporated, surely the direction of the preferred alternative would have been altered. But, to date, we have seen little shift in the preferred alternative. If competing resource uses and values are to be addressed in a combination that will meet the present and future needs of Wyoming residents and the American people, the input of state and local cooperators must be encouraged, liberally considered and included in the analysis.

Comment: Many suggestions made in this letter to improve the Revised RMP were made in our comments regarding the Preliminary DEIS (PDEIS), but were ignored. We recognize that a few of our suggestions were incorporated into the DEIS, and we are appreciative. However, we are disappointed that many meaningful recommendations were dismissed, apparently with little or no consideration and certainly with no explanation.

Response: The input of state and local cooperating agencies was considered during the development of both the Rawlins RMP DEIS and FEIS. It is BLM policy to encourage the involvement of cooperating agencies throughout the planning process, although practical limitations in cooperating agencies' time, resources, and expertise as well as ambitious BLM planning schedules may make full involvement impractical. Notwithstanding such cooperative and collaborative efforts, the designation of a Proposed Plan and the final decision remain the exclusive responsibility of the BLM.

Comment: Our organizations are very concerned about the integrity of the National Environmental Policy Act (NEPA) process. Frequently, the Bureau of Land Management (BLM) prepares NEPA documents that fail to analyze an adequate range of reasonable alternatives and/or do not sufficiently assess the environmental and cumulative impacts of proposed and alternative actions. This DEIS is deficient on both counts. Furthermore, it makes a host of assumptions about numerous issues that warrant comprehensive analysis and fails to provide critical information necessary for the public to offer informed comments.

Response: The alternatives in the Rawlins RMP FEIS conform with FLPMA, NEPA, and BLM planning guidance. The requirements to develop alternatives under 40 CFR 1502.14(a) include both alternatives analyzed in detail and alternatives analyzed but eliminated from detailed study. Alternatives were formulated with consideration of multiple-use provisions in FLPMA; systematic, interdisciplinary planning provisions of NEPA; and other significant guidance listed in Section 1.4, Relevant Statutes, Limitations, and Guidelines, found in the Rawlins RMP FEIS. Alternatives were objectively evaluated, and some were analyzed in detail, while others were eliminated from detailed study for various reasons. BLM has provided a reasonable range of alternatives. Each alternative represents an alternative means of satisfying the identified purpose and need and for resolving issues. The development of a range of alternatives began early in the RMP planning process, starting with the public scoping period, and continued throughout the planning process in coordination with our cooperating agencies through to completion of the RMP FEIS. Chapter 4, Environmental Consequences, has been updated in the RMP FEIS. The Cumulative Impact analysis has been updated in the RMP FEIS.

Comment: I believe that the BLM in conjunction with state and federal management agencies can manage wildlife and their habitats in the Rawlins Resource Area in a manner congruent with the principles of multiple use and sustained yield detailed in the Federal Land Policy and Management Act of 1976. The dilemma for BLM biologists is epitomized on page 4-267: "...impacts to habitats would be unavoidable under current BLM policy to foster oil and gas development." If the public is to have a better understanding of what they are trading off in the fostering of oil and gas development as is required by NEPA, then the BLM must do a more credible job in developing management plans and evaluating associated impacts.

Response: Chapter 4, Environmental Consequences, in the FEIS has been updated.

Comment: Let's not forget the importance of solid, scientific facts, and if there's any one place where facts are needed, it's in the development of a resource management plan. I am concerned that the BLM is failing to look at facts and instead is giving into the illogical and unfounded complaints of the environmentalists. I'm a strong supporter of multiple-use management, but there are areas in the Rawlins RMP that I fail to see this concept being utilized.

Response: Chapter 4, Environmental Consequences, in the FEIS has been updated to include additional scientific literature citations to support the impact analysis.

Comment: I'm not against development of natural resources, but I am against development of this magnitude with disregard to little or no science to back environmental impacts. It appears that the BLM is only in this project for the money and cares little about the impacts to wildlife and the people that enjoy the public lands and what they offer. I'm not sure that the BLM can sufficiently indicate that the public's best interest is being taken into account with this project. It appears that the only one that will benefit from the development is the Oil Companies and the BLM's coffers (which coincidentally will then be used to put a "band-aid" on another screw up by the BLM).

Response: The RMP FEIS has been updated to clarify where development would and would not occur (see Summary of Changes between RMP DEIS and FEIS at the beginning of each chapter in the FEIS). The RMP DEIS and FEIS evaluated all options in detail to ensure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of BLM public lands and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility, to ensure that resource values are protected while allowing for acceptable levels of resource use and mineral

development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents. The impact analysis in Chapter 4 of the RMP FEIS has been updated.

Comment: We are particularly struck, at this period of budgetary belt-tightening, by how much manpower and funding will be required to accomplish all the monitoring and “best management practices” necessitated by the P.A.'s opening of so many areas to new development and all the permitted activities authorized therein. Allied with the regular duties that BLM is required to handle (vegetation treatment, fire work, to name just two of many), we wonder how -- or if -- it is possible in such a widespread area to actually maintain the level of watchfulness necessary to ensure that all of the lease stipulations are being met, no damage is being done to trails, wildlife, protected plants and animals, streams, and significant seasonally-restricted habitats, to see that there is a reduced human presence during “critical times,” winter months, and “at night”? Appendix 1 of the DEIS presents Wyoming BLM's Guidelines for Mitigation of Surface-Disturbing and Disruptive Activities; when elsewhere within the DEIS we find the words “economically feasible mitigation measures” [emphasis added], we speculate about the size of the loopholes industry can find and BLM will allow.

Response: Following the completion of the Rawlins Approved RMP and Record of Decision, the BLM will develop an implementation plan that will be addressed in the BLM's budget proposals for each year during the life of the plan. Annual BLM budget appropriations will dictate how effectively the Rawlins RMP will be implemented. Also, see the Introduction to Appendix 17, Monitoring and Evaluation, in the RMP FEIS.

Comment: I find the overall tone of the subject document to be hostile to the economy of the area and the economic well being of the majority of people, who live, work and recreate in this corner of Wyoming. The document seeks to establish BLM authority and control over private property through implementation of coercion of industry and agriculture seeking to develop and utilize the resources on adjacent federal land. The document clearly reflects the influence of the environmental exclusionists

Response: Table 1-1 in the FEIS and the footnotes to Table 1-1 clearly identify the limits of BLM management responsibility in relation to private surface and private minerals, when split estate situations occur. The Rawlins Approved RMP will provide the overall management direction for the public lands and resources administered by the RFO.

Comment: In the DEIS, BLM states that its preferred alternative (Conservation Alternative) emphasizes neither resource use nor resource protection and that it best promotes a balanced multiple use objective. However, from our review of the DEIS, we believe BLM's preferred alternative, in its current form, fails to achieve this objective. Instead, BLM proposes to impose excessive mitigation measures, tipping the scale away from a balanced multiple use objective. As BLM itself recognized in the DEIS, it must limit restrictions to what is required statutorily or is scientifically justifiable and the least restrictive constraint necessary to meet the resource protection objective (EPCA 2000). However, it is impossible to determine if the management decisions analyzed in the DEIS meet this objective as BLM failed, to a large degree, to provide scientific justification or an explanation regarding the statutory requirement for the numerous restrictions proposed to be placed on the oil and gas and other industries (e.g. no evidence for application of “disruptive activity” restrictions throughout the document). As BLM prepares the final document; we urge BLM to carefully review the proposed mitigation measures to ensure that a scientific basis exists supporting the imposition of mitigation measures or the measure is required by statute, and that BLM clearly disclose these facts in the DEIS. Further, BLM must recognize the importance, both to the nation's and Wyoming's economic well being, of developing the existing oil and gas resources. APC firmly believes such development can and does occur in an environmentally sensitive fashion. Based on our

analysis of the document and the alternatives presented, APC supports BLM's preferred alternative provided it is modified as reflected by the comments below.

Response: The RMP FEIS includes a range of alternatives recommending a balanced approach that ensured protection of resource values, while allowing opportunities for mineral and energy exploration and production. The management actions contained in the Proposed RMP FEIS allow mineral and energy exploration and production, while protecting other resource values. BLM provides for managing the public lands and their various resources, so that they are used in the combination that will best meet the present and future needs of the American people. This direction indicates that not all uses need to be accommodated in all areas. The Proposed Plan in the RMP/DEIS and the Proposed Plan in the RMP FEIS reflect this provision. Not all areas would be open to all types of uses in the RMPPA. In addition, not all areas would be open to uses in the same time frame. Management actions for all resources are provided in the Proposed Plan and Proposed Plan, including those that provide protection of sensitive resources. The BLM is required and has a responsibility and a legislated mandate to evaluate and consider available research within the scope of its multiple-use mandate and to formulate management actions, mitigation measures, BMPs, and eventual decisions that are supported by law, regulation, and policy, as well as by available science. The impact analysis in the RMP FEIS has been updated to include additional scientific literature citations for research considered and incorporated into the analysis, appropriate to the discussion, evaluation, etc.

Comment: It is our comment that the BLM should clearly state in the Final RMP that they will react to a resource problem by correcting the direct cause of that resource problem.

Response: As stated in Appendix 17, Monitoring and Evaluation, those actions that are not producing desired results would be modified or replaced, based on the assessment of the new data. See the introductory paragraphs of Appendix 17, Monitoring and Evaluation, for additional explanation of the monitoring and evaluation process.

Comment: BLM has participated with others in Cooperative Management groups or projects. Great strides have been made by these groups in reducing the impacts of roads, poor grazing practices, irresponsible recreational use, and other human activities. These efforts have set a standard for human use that should be specifically stated in the RMP for every use that occurs on the public lands.

Response: The Rawlins RMP FEIS includes the formation of activity plan working groups (Section 2.7.2 in the FEIS) when circumstances dictate. Activity-level actions include implementation plans and analyses, such as Allotment or Habitat Management Plans, Oil and Gas Field Development Plans, Recreation Management Plans, and Coordinated Activity Plans.

Comment: I still do have a few problems with the current draft of the Rawlins RMP – such as the definition of “disruptive activities” and the overprotection of sage grouse habitat.

Response: Thank you for your comment and your participation in the Rawlins RMP planning process. The definition of “disruptive activities” has been updated in the FEIS. The sage-grouse management actions in the Proposed Plan conform with BLM National Greater Sage-Grouse Strategy.

Comment: The state’s cooperators are working on specific language for your consideration in the final document. I request that a meeting be scheduled wherein the State can present its proposed language and further discuss the document.

Response: The input of state and local cooperating agencies was considered during the development of both the Rawlins RMP DEIS and FEIS.

Comment: Homeland Security Comment Given the events following 11 September 2001 and the creation of the Department of Homeland Security, the draft RMP EIS does not address potential homeland security threats to BLM-managed lands in the RMPPA in any manner. Under all alternatives, potential terrorist targets exist within the RMPAA including major reservoirs, inter- and intra-state natural gas pipelines, inter- and intra-state power transmission lines, producing oil and natural gas wells, transcontinental fiber optic lines, and other vital components of the Nation's energy and communication's infra-structure. Given current world events, the issue of homeland security as it applies to BLM-managed lands in the RMPPA should be addressed, or at least mentioned, in the final RMP.

Response: BLM recognizes national security issues relative to resources and facilities on public lands. Most of the facilities listed in your comment are owned and operated by private companies or other federal agencies. The security and protection of these facilities is the responsibility of the owners or agencies. The Department of Homeland Security is responsible for national coordination of these efforts. The purpose of this land use plan is to establish goals and objectives for public land resources and allocate those uses. Addressing security and safety associated with these facilities is part of implementing and operating these facilities, and as such is outside the scope of this land use plan.

Comment: While we recognize that the public comment process is not democratic, if the BLM receives an overwhelming number of responses, all seeking similar management direction, this is a strong indication that the public interest favors that management direction, and the BLM as public servants should adopt a congruent plan.

Response: The comment process is indeed, not democratic, and the BLM is not obligated to consider comments of opinion whether individually generated or the response of some sort of mass mailing. The "overwhelming number of responses" received during the comment period that supported the Western Heritage Alternative contained little, if any, substance that could be addressed in the FEIS. The BLM is ultimately responsible to consider comments received on an issue, whether one, one-hundred, or one-thousand comments on an issue are received and appropriately consider the issue. In this case, is it warranted to consider the Western Heritage Alternative and present the alternative in detail in the RMP? Upon thorough review of the WHA by the BLM it was determined that although many of the aspects of the WHA had merit the overall direction of the WHA (NSO proposals amounting to approximately 98 percent of the public land surface with oil and gas development of federal mineral forced onto private and state surface utilizing directional drilling) was considered not to be reasonable and therefore, not presented in detail in the RMP. The FEIS in Chapter 1, Section 2.3.3 Alternatives And Management Options Considered But Eliminated From Detailed Analysis contains additional text describing the analysis of the WHA.

Policy Comments

Comment: It is the BLM’s responsibility to ensure a balance of resource uses, a minimization of impacts to the land and wildlife, and management to benefit and enhance all multiple uses (including those that benefit the public at large). The current four alternatives fail these directives, but the Western Heritage Alternative provides an admirable balance that allows full development of mineral resources while simultaneously providing full protection for sensitive landscapes and wildlife. We urge the BLM to consider and adopt the Western Heritage Alternative, with the strengthening listed above, as its final Rawlins Resource Management Plan.

Comment: I support the elimination of the Western Heritage Alternative and the expanded wilderness alternative from detailed analysis. Neither complies with the Federal Land Policy and Management Act (FLUMPS) or the Mining and Minerals Policy Act of 1970. These laws require that management of public lands recognize the need for domestic sources of minerals and that the federal government is required to “foster and encourage private enterprise” to develop minerals “to help assure satisfaction of industrial, security and environmental needs”.

Response: The Western Heritage Alternative was determined to not be a reasonable alternative due to, among other things, the excessive acreage of No Surface Occupancy restriction proposed in the alternative. See updated text in the Rawlins FEIS - Section 2.3.3 Alternatives and Management Options Considered But Eliminated From Detailed Analysis - Western Heritage Alternative.

Comment: None of the alternatives were conceived in accordance with Federal Land Policy and Management Act (FLPMA). FLPMA mandates that the BLM consider multiple uses for the lands it administers. Under FLPMA, the BLM must consider all of the land’s inherent natural resources, including its mineral resources. While the purpose of the RMP is to manage all of the district’s resources in an environmentally responsible manner, the BLM is under no obligation to manage all resources with equal emphasis. The BLM should consider the importance of oil and gas development to the economy of this nation while developing its management principles and rendering its decision.

Comment: The DEIS fails to provide a balanced approach to management of oil and gas resources with other surface resource values. Therefore, we find it impossible to support the preferred alternative because it would impose needlessly restrictive mitigation measures upon exploratory and in-fill development opportunities.

Response: The term “multiple use” as defined in FLPMA means “the management of the 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.” This direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP FEIS reflect this provision. Not all areas would be open to all types of uses in the RMPPA. Additionally, not all areas would be open to uses in the same timeframe. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (See Summary of Changes between RMP DEIS and FEIS at the beginning of each Chapter in the FEIS). The RMP DEIS and FEIS evaluated all options in detail to assure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of BLM public lands and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure that resource values are protected while allowing for acceptable levels

of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents.

Comment: I request BLM actively involve ALL citizens in planning phases along with industry folks. I demand that a variety of Wyoming citizens be involved in the planning processes that impact OUR public lands.

Comment: The Rawlins BLM has failed to fulfill the NEPA requirements for public involvement throughout the planning process for these RMPs.

Response: As required by the BLM planning regulations, BLM provides opportunity for the public to provide input into the planning process. Scoping, input of local, state, and other Federal Government cooperating agencies, 90-day comment period following release of the RMP DEIS, 30-day protest period following release of the RMP FEIS, 60-day Governor's consistency review of the Proposed Plan. All these comment opportunities provide the public an avenue to input thoughts, ideas, and issues into the BLM planning process. All comments are given equal consideration regardless of the length of the letter, residence or affiliation of the commenter, etc. Plan implementation decisions also are open to review by interested and affected parties during site-specific project level planning and analysis.

Comment: This plan does not cover the NEPA-required breadth of alternatives.

Comment: We are disappointed that the alternatives in the Rawlins RMP DEIS do not conform to the aforementioned mandates. [43 C.F.R. 1702(C); BLM Manual 1610.6 A (2); 40 C.F.R. 1500.2(f); 40 C.F.R. 1500.6] The Rawlins RMP DEIS presents an extremely narrow range of alternatives; indeed, in many respects, the alternatives are so close to each other to make it difficult to discern a significant difference. Each of the four alternatives presented places far too much emphasis on oil and gas development, and each of the four alternatives neglects other multiple uses and resources, including public recreation, visual resources, wildlife habitat and welfare, water quality, air quality, to an unacceptable degree.

Response: As described in the CEQs 40 Most Asked Questions on NEPA Regulations, Question 2a., CEQ expands on the guidance in 40 CFR 1502.14, ...In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable... Alternatives developed for analysis in land use plans must also comply with this guidance. The alternatives in the Rawlins RMP FEIS conform with FLPMA, NEPA, and BLM planning guidance. The requirements to develop alternatives under 40 CFR 1502.14(a) includes both alternatives analyzed in detail and alternatives analyzed but eliminated from detailed study. Alternatives were formulated with consideration of multiple-use provisions in FLPMA, systematic, interdisciplinary planning provisions of NEPA, as well as other significant guidance listed in Section 1.4 - Relevant Statutes, Limitations and Guidelines found in the Rawlins RMP FEIS. Alternatives were objectively evaluated and some were analyzed in detail and others were eliminated from detailed study for various reasons. Included in the consideration of alternatives was the understanding that decisions made in the previous RMP (Great Divide RMP) greatly influence what types of alternatives would be considered reasonable. Previous decisions to allow fluid mineral leasing and approve exploration and development of the oil and gas resources precludes consideration of an alternative to eliminate or drastically curtail development in an area because of existing lease rights and legal obligations and commitments made by the United States. BLM Manual 1601.06(G). BLM has provided a reasonable range of alternatives. Each alternative represents an alternative means of satisfying the identified purpose and need and of resolving issues. The range of alternatives began early in the RMP planning process starting with the public scoping

period and was further developed throughout the planning process in coordination with our cooperating agencies and during the public comment period on the RMP DEIS. The FEIS has been updated to include a 'deferred leasing' category in the oil and gas management actions in Chapter 2 and in the Methods of Analysis in Section 4.8 Minerals in Chapter 4.

Comment: It has failed to provide “credible scientific evidence” relative to reasonably foreseeable significant adverse impacts (including low likelihood but catastrophic impacts) so that the impacts can be assessed based on approaches that are “generally accepted in the scientific community.” See 40 C.F.R. § 1502.22(b). See also 40 C.F.R. § 1502.24 (requiring professional and scientific integrity in an EIS).

Comment: Not only must NEPA documentation such as the DEIS explore and analyze potential mitigation measures, but a decision to proceed with this project must not be based on arbitrary assumptions about the success of mitigation measures. See, e.g., *Stein v. Barton*, 740 F.Supp. 743, 754 (D. Alaska 1990) (holding that “where an agency’s decision to proceed 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'”).

Response: The impact analysis in Chapter 4 of the RMP FEIS has been updated to include additional scientific literature citations for research considered and incorporated into the analysis, appropriate to the discussion, etc. Research articles and available science has been considered by the BLM, however, recommendations, assertions, and opinion made in the literature are by no means required to be incorporated verbatim into management actions. The BLM is required, and has a responsibility, and a legislated mandate, to evaluate and consider available research within the scope of its multiple-use mandate and formulate management actions, mitigation measures, BMPs, and eventual decisions that are supported by law, regulation, policy, as well as available science. As an example, the management actions and mitigation measures in the Proposed Plan for management of greater sage-grouse and sagebrush dominated habitat conform to the recommendations made in the BLM National Sage-Grouse Strategy (Strategy). The RMP FEIS does not list the scientific citations referenced in the Strategy because the Strategy recommendations and management actions were supported by the literature citations cited in the Strategy and by the BLM and multi-agency specialists tasked with developing the Strategy. The same applies to the National Forest Initiative, The Rangeland Health Initiative, among others.

Comment: Many of the issues challenged here and by many others are responded to by the “bureaucratic shoulder shrug.” This is a full body movement accompanied by a look down and away to the left, followed by the words: “We are just enforcing the laws Congress wrote. You need to talk to them.” But when we look at the ESA, NEPA, and others, we find that the problem is not with the letter and intent of Congress when those laws were passed, but with the agenda and interpretation expressed in Rules such as the RMP. We request that you reconsider and re-evaluate any policy founded upon Rules of aggressive nature. Rules are interesting, but not necessarily the law of the land. Rules are always suspect. Whose turf or agenda is being protected? Your fiduciary obligation to the Public is to not read more into the Rules than was intended by Congress.

Comment: Can we try to focus on fixing the aspects of NEPA that allow obstructionist tactics without producing significant environmental benefit?

Response: BLM thanks you for your comment, however, the content of the comments is not within the scope of the Rawlins RMP planning process.

Comment: The BLM should use scientifically-sound monitoring more extensively than is the currently practice. Integrated monitoring of resource activities including grazing, mining, wildlife, vegetation management, air and water quality, and oil and gas activities, will more accurately identify cumulative

effects and ensure a more deliberate approach to Plan revisions. This approach will improve resource sustainability and land management continuity. Effective monitoring will ensure that the oil and gas program is not adversely affected by perceptions that cumulative effects exceed acceptable levels.

Comment: A17-1 Far more detail regarding monitoring is required if BLM is to meet its duties under NEPA and FLPMA and their implementing regulations. Perhaps more importantly, a plan without monitoring and clear indication of how the monitoring will affect implementation of the plan or lead to amendment of the plan is of little value. See <http://ceq.eh.doe.gov/ntf/> (presenting CEQ Task Force on NEPA implementation report, including the need for monitoring). The monitoring and evaluation proposed in the EIS fails to comply with the requirements of 43 C.F.R. § 1610.4-9. Among other things, BLM has provided no analysis of the “sensitivity of the resources to the decisions involved” so as to guide monitoring.

Response: The RMP FEIS provides for monitoring of all resources to meet the identified goals and objectives of the RMP FEIS. The introductory text of Appendix 17, Monitoring and Evaluation, adequately describes the process under which monitoring would be used to ensure that predicted impacts to environmental resources have not been exceeded and that mitigation measures are sufficient (effectiveness monitoring). As per H -1601-1 V.A Monitoring, effectiveness monitoring is the process of collecting data and information to determine whether or not desired outcomes are being met as the allowable uses and management actions are being implemented. Appendix 17 describes the various types of monitoring data that would be collected and evaluated during implementation of the Rawlins RMP as well as the various triggers that would require consideration for management adjustments. Monitoring frequency and duration take into account the sensitivity of resources to management actions and change. BLM will coordinate with other federal, state, and local land and resource management agencies (WGFD, USFWS, NRCS, etc.) where appropriate, when issues of state or federal authority are evident. As an example, any monitoring of wildlife populations would be coordinated with the WGFD and USFWS as appropriate. Table A17-1, Resource Monitoring Table, in the RMP FEIS has been updated to add additional parameters (indicators) that could be monitored. See the revised Appendix 17, Monitoring and Evaluation, in the RMP FEIS.

Comment: I am very concerned that the BLM plan refuses to set the BLM up to be able to require energy development to proceed in the most responsible way. It is not an adequate assumption that BMP's will be enforced where appropriate at the project or APD level because that has not always been the case in the past. I urge you to make the BMP's suggested in the PA binding conditions of receiving a lease where appropriate.

Comment: Many of the mitigation measures described above are included in BLM's list of so-called “Best Management Practices” (BMPs) included in Appendix 15 of the DEIS.[footnote 24] What is missing is any indication of where or when or if any of these measures would be required.[footnote 25] Without greater assurances that the BMPs contained in Appendix 15 will be required for all oil and gas development in important habitats, the vitality of wildlife populations in the planning will not be sustained.[footnote 26] This failure is not remedied by BLM's new willingness to explore off-site mitigation as a last resort to address unexpected or unacceptable wildlife impacts.

Response: BMPs are innovative, dynamic, and improved environmental protection practices applied to oil and natural gas drilling and production as well as to other surface disturbing and disruptive activities, to help ensure that development is conducted in an environmentally responsible manner. BMPs are not one-size-fits-all situations. BMPs need to be matched and adapted to meet the site-specific requirements of a particular project as well as the local environment. BMPs are incorporated into site-specific project proposals and supported by site-specific environmental analysis. A number of appendices in the RMP FEIS contain BMPs and mitigation measures that support the intensive management identified in the

RMP FEIS in Chapter 2. The Rawlins RMP does not mandate BMPs for particular actions at the land use plan level but instead provides a range of BMPs that would be applied, where appropriate, at the activity plan or site-specific level of analysis. The Methods of Analysis sections under each resource heading in Chapter 4 of the RMP FEIS contain assumptions that appropriate BMPs would be used to reduce the impacts of the various management actions under each alternative.

Comment: We are apprehensive that offsite mitigation will become a routine requirement for oil and gas operators on public lands, as proposed by Rawlins FO. We can foresee that BLM could adopt a policy that requires offsite mitigation to reduce impacts to a less than “significant” level under NEPA. Such a goal may be impossible to achieve in some cases which could lead to the “assumption” that any action resulting in impacts would result in unnecessary and undue degradation of public lands.

Comment: BLM has failed to provide any discussion of or definition of what it views as unnecessary or undue degradation of the public lands. In *Mineral Policy Center v. Norton*, 292 F.Supp.2d 30, 41-43 (D.D.C. 2003) the court provided guidance on what the unnecessary or undue degradation provision requires. While the “unnecessary” prong of this twofold requirement may relate to the economics of oil and gas drilling and industry standard practices, the “undue” degradation prong relates to impacts that are environmentally excessive. See *id.* at 41. In fact, BLM has the obligation to “disapprove of an otherwise permissible mining operation because the operation, though necessary for mining, would unduly harm or degrade public land.” *Id.* at 42. BLM has impermissibly failed to acknowledge or discuss its responsibilities in light of this requirement.

Response: Undue or unnecessary degradation is defined in a number of places in BLM regulation and policy. One example, 43 CFR 3809.5, identifies undue and unnecessary as conditions, activities, or practices that: “(1) Fail to comply with one or more of the following: the performance standards in...the terms and conditions of an approved plan of operations...and other federal and state laws related to environmental protection and protection of cultural resources; (2) Are not “reasonable incident” to prospecting, mining, or processing operations...; and (3) Fail to attain a stated level of protection or reclamation required by specific laws in areas such as the California Desert Conservation Area, WSRs, BLM-administered portions of the National Wilderness System, and BLM-administered National Monuments and National Conservation Areas.” Essentially, operations that are in compliance with applicable law, regulation, and policy and include appropriate mitigation measures and/or BMPs are not causing unnecessary or undue degradation of the public lands.

Comment: Although this planning document includes broad objectives and concepts for managing public lands, it lacks sufficient, programmatic detail and direction to assure appropriate resource protection, monitoring and mitigation practices for activity level planning and permitting decisions. The RMP needs to provide substantially more detailed programmatic guidance in the form of measurable, quantifiable objectives and adequately defined management actions in order to function as an effective planning document and realistically, to achieve FLPMA and NEPA objectives for managing multiple-use public lands.

Comment: As noted above, BLM's land use planning handbook requires BLM to provide a statement of desired outcomes in its land use planning process. BLM Handbook H-1601-1, II.2. The EIS fails to do this.

Response: Chapter 2, Table 2-1, Detailed Comparison of Alternatives, in the RMP FEIS has been updated to include desired future outcomes and objectives within the context of each resource or program's goals and objectives, where appropriate. With respect to geographic scale, however, a Field Office the size of the Rawlins Field Office will likely have more general goals and often fewer quantifiable objectives than a much smaller RMPPA.

Comment: The DEIS states that Special Management Areas (SMAs) are to be “intensively managed” for the specified objectives (wildlife habitat, raptor concentration, etc.). Unfortunately, there are no clear or measurable objectives to direct the specified management and thus achieve the specified objective. One can only assume that management will be for the benefit of the plants and/or animals located in these areas, yet there is no prescribed direction. BLM Manual H-1601-1 states plainly that a “land use plan must express desired outcomes in terms of specific goals, standards and objectives.” The final RMP should contain these items.

Response: The definition of “intensive management” has been expanded in the Glossary of the RMP FEIS to include additional reference to the various appendices that contain the BMPs important to support the management actions in Chapter 2, Table 2-1, Detailed Comparison of Alternatives, that refer to intensive management. The definition has also been expanded to clarify how the application of intensive management would influence on-the-ground management actions.

Comment: I don't believe BLM's extra levels of protectionary language (as described by Public Lands Advocacy and contained in the Rawlins RMP) significantly improve the environment. Further, I believe the extra protectionary language is unfounded and completely unwarranted.

Comment: BLM also proposes to adopt 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.”

Response: The hard look at the effectiveness of mitigation measures, BMPs, and management actions is included in the impact analysis in the FEIS. Appendix 17, Monitoring and Evaluation, identifies the process that would be followed and the types of monitoring data that would be collected and evaluated to gauge the effectiveness of management actions, mitigation, and BMPs, and in essence, the accuracy of the impact analysis. Implementation actions developed following the planning decisions in the Rawlins RMP will require, and be supported by, additional NEPA analysis conducted for all proposed surface disturbing and disruptive activities.

Comment: It is rarely possible for the BLM (or any other Federal agency) to obtain perfect amounts of information. BLM must not allow this fact to stymie environmentally informed decision-making by BLM. CEQ regulations essentially establish a presumption in favor of obtaining information that is essential to reasoned decision-making. See 40 C.F.R. § 1502.22. See also BLM Handbook H-1790-1.III.A.2.d. BLM has failed to take steps to gather needed information in all but the narrow range of exceptions permitted by the CEQ regulations. BLM has failed to be explicit regarding information it may not view as essential to reasoned consideration of alternatives, its views on whether the cost of obtaining the information is exorbitant, or make any determination regarding whether the means for acquiring the information are unknown. BLM must nevertheless scrupulously abide by CEQ guidance in this regard.

Response: CEQ regulations require federal agencies to use appropriate and best available information in their decisionmaking process. BLM believes that it has done just that. Obviously, there can be a wide range of opinion about information adequacy. BLM has collected, presented, and used data and information it deemed necessary to make decisions appropriate at the resource management planning tier of the BLM planning process. See Section 1.3, Overview of the BLM Planning Process, in the FEIS. The text in Chapter 3 of the FEIS has been updated to include a description of the adequacy of the available data presented, the availability of data used but not presented in the FEIS, and in some cases, the sensitivity of data not presented. The BLM uses the best data available at the time the document is

prepared. Any available data (see Chapter 3 of the FEIS) are reviewed and selected data included if pertinent to the decisionmaking process. The BLM believes that a reasonable analysis of available data has been provided and that the data presented are an adequate base for analysis of the proposed plan and alternatives in the FEIS, using RFD actions. The BLM has developed an EIS that includes data and analysis pertinent to the decisionmaking process and comparison of alternatives, is not a needless encyclopedic collection of data, discusses only briefly issues other than significant ones, and emphasizes data in the EIS that is useful to decisionmakers and the public while reducing emphasis on background material. Site-specific analysis of any activity on public lands would also identify if resource values such as cultural resources, T&E species, or other sensitive resources are present. The BLM will also continue to acquire new data and information as it becomes available.

Comment: Also, as far as cooperating agencies, we recognize that the agency has a responsibility under FLPMA to work with state and local agencies, to work with their local plans. At the end of the day however, BLM has a multiple-use mandated and they area the decision maker and we encourage to move forward on those decisions.

Comment: BLM Has Failed To Ensure Compliance With The Clean Water Act And Clean Air Act. {See supporting information}

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: BLM should revise its description of “disturbing activities” which will even include operating existing wells. These issues will compound wildlife timing stipulations to create a de-facto “no-occupancy” lease where nothing will ever take place. This management practice would also violate IBLA docket 96-502 which acknowledged that the unavailable nature of tracts adjacent to existing leases prevents the prudent development of the existing leases.

Comment: The EIS and the RMP itself should address issues related to noise, and its impact on the remoteness and quietness that so many seek on the public lands. We particularly ask that the EIS address and the RMP provide requirements to minimize the noise created by oil and gas development activities, especially the noise problems from compressors and compressor stations. Noise occurring due to oil and gas exploration and well drilling should also be minimized. ORV noise should also be addressed. The EIS fails to even consider, let alone provide for mitigation of, noise-related issues.

Response: The term or concept of “disruptive activities” as part of management actions and impact analysis considers the nonsurface disturbing impacts of human activities conducted on the public lands. The use of the term “disruptive activities” and management actions, stipulations, and BMPs designed to reduce impacts from disruptive activities are not intended to preclude authorized activities but influence how they are accomplished. Management actions to reduce disruptive activities in sensitive areas, found in Appendix 15, Best Management Practices, are designed to reduce the impacts caused by continued human presence in areas of sensitive habitat or resources. This increased emphasis on disruptive activities is the result of monitoring results and professional opinion, that increased human presence, caused by increased industrial development and recreational activities, has caused increased levels of stress to wildlife and increased avoidance of preferred habitat. See the updated definition of “disruptive activities” in the Glossary of the RMP FEIS.

Comment: We urge BLM to refine its Conservation Alternative to be more flexible in its approach to restrictions, best management practices, and similar limitations on needed energy and mineral development.

Response: BMPs for surface disturbing activities are described in Appendix 1-15. Appendix 13 deals with BMPs for nonpoint source pollution. As stated in Appendix 13 BMPs, “BMPs are advisory not regulatory.” BLM policy allows for the application of BMPs as COAs for BLM-approved actions. Once the BMPs become COAs or are included in a plan of action for a project, they are mandatory, and BLM can enforce adherence to them. Individual projects may specify different BMPs as part of approval because of unique resources or local conditions; this is by design to allow for flexibility in their application and the ability to adopt new BMPs as identified in the future.

Comment: Coordination with Local Plans Discussions about this requirement are absent from the document. The alternatives should be compared with local land use plans (including budget and transportation plans) for their degree of compatibility. Recommendation: Obtain and include statements from local planners, (county and municipality) addressing conformity with growth management plans, transportation plans, and land use plans.

Comment: The DEIS fails the consistency requirements in FLPMA, which requires the RMP to be compatible with local agency plans, programs, and policies, to the extent consistent with federal law and policy. While the draft RMP acknowledges that the BLM must ensure that the plan is compatible with local plans, policies, and programs, BLM fails to provide substantiation that such a compatibility analysis was made. The DEIS fails to address conflicts or justify the incompatibilities. For instance, BLM proposes to prohibit animal damage control (ADC), contradicting the Wyoming Animal Damage Management Board and local predatory control.

Response: Section 1.5, Relationship With Other Plans, provides that the Rawlins RMP must be consistent with officially approved or adopted resource related plans of Native American tribes, other federal agencies, and state and local governments, to the maximum extent practical. This RMP FEIS is being distributed to other federal agencies, state and local governments, and Native American tribes for the opportunity for them to identify where specific inconsistencies may exist. See complete text in the RMP FEIS.

Comment: Appendix 18 does not conform to BLM's interim national policy, Instruction Memorandum 2005-69, which emphasizes compensation or off-site mitigation will be entirely voluntary on the part of the applicant. While BLM may identify offsite mitigation opportunities, it is stated they will not be carried forward unless volunteered by the applicant. We guardedly support the concept of voluntary mitigation. However, we oppose the program contained in the Rawlins DEIS because it would impose off-site or compensation mitigation as a BLM requirement.

Response: The text of Appendix 18, Compensation (Offsite) Mitigation, has been updated in the FEIS to clarify that compensation mitigation is voluntary on the part of industry.

Comment: A-32 It is indicated that BLM regulates hazardous substances through stipulations. What are those stipulations? The stipulations shown in Table 2-6 do not seem to include any stipulations for hazardous substance management. It is also indicated that environmental analyses of specific projects lead to management actions. The APDs we have reviewed and their accompanying EA and their accompanying surface use plans make reference to a Spill Prevention Control and Countermeasure Plan. What is this plan? What is required by this plan? Likewise, APD EAs or surface use plans seem to require Material Safety Data Sheets to be on site, but what do these do to prevent spills or releases of hazardous substances?

Response: Table 2-6, Areas of Fluid Mineral Lease Conditional Requirements by Hydrocarbon Potential (Approximate Federal Subsurface Acres), in the RMP FEIS includes only occupancy conditional requirements for oil and gas leases by hydrocarbon potential and not stipulations, BMPs, COAs, etc., that

might be added to individual oil and gas applications. BLM-permitted activities are controlled through stipulations, COAs, BMPs, and monitoring, which require mandatory compliance with all applicable federal, state, and local laws, regulations, policies, guidance, and procedures for hazardous materials generation, use, storage, treatment, transportation, and disposal. Violations through accidental occurrences or noncompliance are possible. Stipulations require mitigation of releases in accordance with applicable laws and regulations. BLM will ensure that the responsible parties clean up the contamination or reimburse BLM for incurred cleanup costs. Although industrial operations are regulated to minimize potential spills, accidents cannot be eliminated completely. Monitoring, oversight, and review of authorized activities, coupled with effective management controls, reduce the severity of impacts from releases. Material Safety Data sheets do nothing to prevent spills or releases of hazardous substances; they do provide guidance and information concerning the handling and disposal of hazardous substances.

Comment: Each alternative in the analysis should simply reflect differing levels or scenarios of development and each must include adequate environmental protections and mitigation to achieve the mandates of FLPMA. There can be no legitimate alternative that emphasizes development “with less emphasis on environmental protection.” In fact, the alternative with the greatest degree of development must be accompanied by the greatest emphasis on environmental protection in order to comply with the mandates of NEPA and FLPMA. Mitigation must be adequate to offset the impacts of whatever development is proposed

Response: BLM disagrees. There is no direction or guidance in NEPA that supports the contention that an alternative is not legitimate if it emphasizes development “with less emphasis on environmental protection.” Nor is there direction or guidance in NEPA that supports the contention that an alternative is not legitimate if it emphasizes environmental protection with less emphasis on development. This is, in fact, the very method by which a range of alternatives is developed. However desirable, it is also not the intent or a requirement of NEPA to construct alternatives wherein all impacts are completely mitigated or eliminated; hence the provision for, or allowance of, significant impacts to result under the alternatives.

Comment: A 18-1 to 2 How, when, and where off-site mitigation will be used is not clearly spelled out. When do impacts become “not adequate to mitigate the impacts of proposed actions” and thus trigger the use of off-site mitigation? “Thresholds” are mentioned as a trigger for the use of off-site mitigation but what they are is uncertain. What does a “point where disturbance in a specific area exceeds the level that would be tolerated by wildlife, or exceeds the physical capacity of an area to absorb or dampen the impact” mean? Perhaps the significance criteria specified in the Environmental Consequences Chapter could be used to generate numeric thresholds. What does BLM think about this? It appears that if oil and gas development exceeds 16 pads per section or long-term disturbance exceeds 80 acres per section, off-site mitigation would be required, but this needs to be clarified (the sentence on page A1 8-2 that reads “Threshold points for instigation of Office of Surface Mining (OSM) would include-” does not seem to make sense). Would off-site mitigation be required if these thresholds are exceeded? Appendices 18 and 26 should be tied together. When the thresholds that trigger off-site mitigation are reached, road closures or seasonal restrictions on their use should be specified as a first tier approach. See A18-1 (stating that on-site mitigation is first in the order of use of mitigation techniques). This should be made explicit in the various alternatives, particularly the preferred alternative.

Response: Concerning offsite mitigation or compensation mitigation, on Page 16, paragraph 1, of the WGFD Offsite and Off-Lease Mitigation, it states: “If it is not possible to maintain habitat functions within or immediately adjacent to the well field, off-site and off-lease mitigation is a voluntary option that may be considered on a case-by-case basis. The primary emphasis of off-site or off-lease mitigation is to maintain habitat functions for the affected population or herd, as close to the impact site as possible. Offsite and off-lease mitigation should only be considered when no feasible options are available to mitigate within and immediately adjacent to the impacted site, or when the offsite or off-lease location

would provide more effective mitigation than can be achieved on site. Such determinations will be made by the APWG after considering analysis and recommendations from the WGFD.” RFO considers the statement on A18-1 to be consistent with WGFD guidelines. Under IM No. 2005-069 (Interim Offsite Compensatory Mitigation for Oil, Gas, Geothermal and Energy Rights-of-Way Authorizations), it states: “The BLM continues to have an obligation to ensure that actions do not result in unnecessary or undue degradation to the public lands.” (43 U.S.C. §302[b]) RFO policy is that if mitigation becomes necessary (as a last resort), offsite mitigation can be much larger than the actual amount of acres lost. This loss would be temporary, as the lifetime of conventional and CBNG wells is expected to be 25 to 30 years or less.

Comment: Appendix 32 BLM should specify when it will consider seeking monetary damages for damages to natural resources from hazardous substances. See 42 U.S.C. § 9607(a)(4)(C). What is BLM doing to monitor for such damages? To what levels must any such damages rise for BLM to consider seeking damages? What is the procedure used to make a determination as to whether natural resources damages will be sought?

Response: The text included in Appendix 32, Hazard Management and Resource Restoration Program, HMRRP Responsibilities, #4. Liability and Risk Management—along with all applicable laws and regulations under which the Hazardous materials program functions—is sufficient guidance to ensure that responsible parties are identified and action taken.

Comment: I would ask that the BLM create a special management area for the checkerboard area. The BLM should neither restrict activities on private land nor place additional burdens on the surface owner. This will take an increased level of coordination with the affected landowners and lessees. Special management considerations within the checkerboard should include, but not necessarily be limited to: grazing, access, oil and gas development, cultural resource protection and private property rights.

Response: The BLM disagrees that a special designation and management area designation is required. The public lands within the checkerboard require the same level of consideration given to blocked public land. The checkerboard land pattern obviously creates some unique situations and will require that the BLM and private landowners work cooperatively to ensure compliance with all federal, state, and local laws and regulations while managing both the public and private lands in the checkerboard.

Comment: In applying the “hard look” test where, as here, the agency, relies existing documents to satisfy NEPA, the agency must establish an administrative record that documents clearly that it took a “hard look” at (1) whether new circumstances, new information, or unanticipated environmental impacts warrant new analysis or supplementation of existing NEPA documents and (2) whether the impact analysis is valid for the proposed action. Colorado Environmental Coalition, 149 IBLA 154, 156 (1999) at n 4. The documentation can be concise but must adequately address the criteria. Id; 40 C.F.R. § 1502.9(c)(1)(i),(ii).

Response: The BLM has not relied on existing documents to satisfy the NEPA requirements of our planning process. The Rawlins RMP DEIS and FEIS satisfy our NEPA requirements. The changes made in the FEIS in response to public comments received on the DEIS as well as changes made based on BLM’s own internal review of the DEIS were not substantial enough to warrant consideration of a Supplemental DEIS.

Comment: Monitoring of land use plan implementation and the impacts resulting from plan implementation are crucial. A number of legal requirements apply to plan monitoring, and BLM must meet these obligations. See, e.g., 43 C.F.R. §§ 1610.4-9, 1610.5-3; BLM Handbook H-1601-1.IV-VII. The EIS should include a realistic assessment and analysis of the costs to the agency of monitoring and

enforcing lease stipulations, conditions of approval for APDs, as well as reclamation standards. If BLM lacks resources sufficient to monitor and ensure compliance with applicable requirements, the agency should defer additional development.[footnote 44] See, e.g., 43 U.S.C. 1732(b).

Response: The BLM agrees that monitoring is necessary to track projected activity, development, and impacts occurring following the RMP decision. Appendix 17, Monitoring and Evaluation, includes details of how and what types of monitoring data would be required. Following the decision on the Rawlins RMP the BLM will request budget and resources necessary to implement and track the land use plan activities.

Comment: I am concerned that the budget cuts the BLM has gone through this year and perceive will continue to happen will put increased pressure on your ability to help meet those demands [adaptive management, monitoring]. The industry stands ready to work with you to make sure that we do so that we're developing responsibly.

Response: The Rawlins RMP FEIS has been developed to address the resource issues and concerns identified throughout the planning process, irrespective of past, present, or anticipated budgets. Management actions developed and presented in Chapter 2 of the FEIS are designed to meet the goals and objectives presented for each resource or program. BLM budget constraints will be addressed through normal BLM budget workload prioritization, separate from the RMP planning process.

Comment: Page 2-18, Second Bullet: "Provide effective and cost-efficient, consensus-based mitigation or resource conflicts." BLM should not make management decisions based on consensus. Recommendation: APC suggests that BLM either eliminate the provision that Activity Plan Working Groups (APWG) provide consensus-based mitigation or clarify that the APWGs will forward consensus-based recommendations for BLM's consideration, but BLM is not bound to adopt such recommendations.

Response: Section 2.7.2, Activity Plan Working Groups, has been updated in the RMP FEIS to include the suggested change.

Comment: 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.

Response: The general description of the RMPPA and the resources found therein are described in Chapter 3, Affected Environment of the FEIS.

Comment: pp. A17-1; 1st paragraph, last sentence. This language implies that, due to constraints within the Rawlins Field Office, monitoring would be prioritized at the expense of analyzing the data. The Rawlins Field Office must place an equal priority on analyzing the data obtained through monitoring. This will ensure the success of adaptive management principles and more important, it will help evaluate the continued need for various lease stipulations and conditions of approval.

Response: This statement only refers to the capability (funding and manpower) of the Rawlins Field Office to conduct monitoring and evaluation at desired levels. The Introduction to Appendix 17, Monitoring and Evaluation, makes it clear that both monitoring and evaluation will not only analyze the current resource conditions but also identify and recommend alternatives or modify actions to reach established goals and objectives—thus "adaptive management."

Comment: You should provide the name of the person proposing that only existing roads be used for geophysical data acquisition. We want them to explain to Congress in person as to what they had in mind.

Response: The Minerals Management Action Common to All Alternatives for geophysical exploration in Table 2-1, Detailed Comparison of Alternatives, has been updated in the RMP FEIS.

Comment: We are also concerned about the lack of direction and specificity inherent throughout the document. We fear that the lack of specific desired outcomes/conditions, measures or monitoring targets will impede our ability to collaboratively address state as well as federal resources.

Response: Chapter 2, Table 2-1, Detailed Comparison of Alternatives, has been updated in the RMP FEIS to include desired future outcomes and measurable objectives in the form of new objective statements that lend themselves to measurement and monitoring when quantified at the activity plan level. It is unrealistic to quantify objectives for a land use plan that covers 3.5 million acres of federal surface estate and 4.5 million acres of federal subsurface mineral estate.

Comment: The Rawlins Draft RMP uses a number of provisions or standards that incorrectly assumes that BLM can regulate air quality, water quality or water quantity. Since BLM lacks the authority to regulate these areas, it cannot impose legal limits as a COAs to a permit. The Wyoming Department of Environmental Quality, not the BLM, regulates emissions associated with oil and gas development.

Response: Water quality, water quantity, air quality, and related compliance issues are the purview of the State of Wyoming through the WDEQ. It is not up to the BLM to establish requirements, standards, or uniform criteria or procedures for water quality, water quantity, or air quality permitting. However the BLM does analyze impacts and can require mitigation or develop alternatives to reduce impacts to water and air quality that have been identified during the NEPA process. Section 1.4, Air Quality and Water Quality, have been updated in the FEIS to clarify that the State of Wyoming regulations implement the requirements to be incorporated during implementation of the RMP. The State of Wyoming has primacy (primary responsibility) for the protection of water quality, water quantity, and air quality. The state also issues the appropriate permits.

Comment: THE BLM HAS IMPEDED BCA'S ABILITY TO COMMENT THROUGH FOIA VIOLATIONS In order to comment fully on the Draft EIS for the Rawlins RMP, BCA was planning to review documents on the Great Divide RMP requested by BCA under the Freedom of Information Act ("FOIA") in our request of December 28, 2004. Instead of responding to FOIA request within the requisite 20 days, BLM chose to grant itself an extension to handle this "Complex" request and committed to produce the materials as follows: "a complete response should be made on or about March 4, 2005." On January 20th, 2005, BLM sent BCA a letter demanding payment of a bill for copying of public documents and threatening a delay of the FOIA process; BCA immediately paid this bill under protest by credit card. And yet, in violation of the letter and spirit of FOIA, the BLM failed to produce the requested documents by March 4th, or indeed by the end of the Draft EIS comment period for the Rawlins RMP. Because this FOIA request was not timely fulfilled, our ability to comment on the Rawlins RMP DEIS has been impaired. A request for an extension of time of the comment period for the Rawlins RMP DEIS submitted on March 10th was denied. In these comments, we ask the BLM for an opportunity to revise and extend these comments based on information received after the comment deadline under this FOIA request.

Response: The Freedom of Information Act procedural requirements that the BLM follows are beyond the scope of the Rawlins RMP. The BLM does not agree that the handling of your FOIA request in any way limited your ability to provide comment on the Rawlins RMP DEIS.

Comment: "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." These data need to be presented in the EIS; their availability in other publications cannot satisfy NEPA's requirements for the

Rawlins RMP. Further directives also support that baseline information must be gathered: “If the 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). Clearly, BLM has failed this basic duty in this DEIS and should provide this information in a supplemental Draft EIS so that environmental consequences can be satisfactorily assessed.

Response: The BLM agrees that both FLPMA and NEPA require the use of baseline information. The CEQ regulations at 40 CFR 1502.15, Affected Environment, state that the EIS “shall succinctly describe the environment of the area to be affected... The descriptions shall be no longer than is necessary to understand the effects of the alternatives. Data and analysis shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced.” Some additional baseline resource information has been added to Chapter 3, where appropriate. Information in the RMP FEIS uses the best available data at the time of preparation. Additional surveys and information will be gathered during site-specific analysis and as funding and personnel are available.

Comment: The BLM is not free to invent mitigation measures out of thin air, with no evidence of their effectiveness, and then use these mitigation measures as a justification for releasing a FONSI and failing to undertake an EIS.

Response: This comment has no relevance to the Rawlins RMP EIS process, since the BLM is completing an EIS for its land use plan.

Comment: Preparation of Statement of Adverse Energy Impacts. As specified in Executive Order 13212, the BLM should prepare a Statement of Adverse Energy Impacts after the record of decision for the Rawlins RMP is made if the decision has the potential to adversely impact energy production, development, and transmission. The statement would document the BLM’s decision in accordance with the order, which was intended to expedite projects that increase production, transmission, or conservation of energy. A Statement of Adverse Energy Impacts should be developed for each alternative and should discuss the following topics: • The impact of timing restrictions; • The impact of designated areas excluded from energy development; • Costs to oil and gas development associated with the mandate of alternative drilling technologies, such as directional drilling; and • Costs to consumers if energy development is hindered or delayed as supplies fall short of demand.

Response: The Statement of Adverse Energy Impacts specified in Executive Order 133212 is no longer required. Changes in anticipated oil and gas production levels associated with each alternative are discussed in Section 4.8, Minerals, of the RMP FEIS.

Comment: The Preferred Alternative for the Rawlins RMP incorporates many measures of unproven effectiveness, and indeed many mitigation measures for which the preponderance of scientific knowledge suggests ineffectiveness. It would be far superior to put in place mitigation measures that have a proven effectiveness, or at least have some basis for an expectation of effectiveness based on the scientific literature.

Response: Without specific reference to which measures the commenter considers of unproven effectiveness, or ineffectiveness, the BLM is unable to specifically respond. BLM mitigation measures are generally well known, commonly accepted, and historically effective activities that reduce or eliminate adverse effects from multiple-use resource management and have been developed in support of BLM’s multiple-use mandate.

Comment: Alternative 2 does Not Comply With Federal Law Alternative 2 in the Rawlins RMP DEIS does not comply with FLPMA or NEPA. This alternative does not provide for multiple use, and it also does not provide a sustainable output of resources other than minerals, thus violating FLPMA. It will also result in unnecessary and undue degradation of resources, also violating FLPMA. Furthermore, it fails even to institute the minimal mitigation measures found under Alternatives 1 and 4, failing NEPA's directive to minimize environmental impacts to the greatest extent possible while fulfilling the purpose and need of a given project. This legal insufficiency prevents the BLM from implementing Alternative 2 as the Rawlins Resource Management Plan. We have no quarrel, however, with this Alternative being analyzed in detail, because after all it is the BLM's obligation under NEPA to analyze alternatives that are outside the agency's jurisdiction to implement.

Response: The BLM disagrees that Alternative 2 does not provide for even basic conformance with FLPMA and NEPA. Alternative 2 provides for a range of reasonable alternatives and also complies with the BLM planning handbook at H-1601-1, Appendix C, Section II.H, to consider the least restrictive constraint to meet the resource protection objectives. Specific mitigation measures are built into the management actions of each alternative and provide a range of management. The BLM and the Rawlins RMP are mandated by FLPMA to operate under the principles of multiple-use, sustained yield, and environmental integrity. These principles, although simple in theory, are difficult to put into practice. A major purpose of the Rawlins RMP is to consider alternative management scenarios in the context of a range of alternatives and to resolve conflicts or mitigate impacts of the various management scenarios. An equally important purpose is to protect the long-term productivity of the public lands. The impact analysis provides the manager and the public with a comparative understanding of how well each alternative meets the goals and objectives set forth in the RMP.

Comment: We remind BLM again that the “primary purpose” of an EIS is to “insure that the policies and goals defined in [NEPA] are infused into the ongoing programs and actions of the Federal Government.” 40 C.F.R. § 1502.1. The DEIS and preferred alternative selected by BLM reflect neither “productive harmony” between man and his environment nor a recognition that this generation is the “trustee of the environment for succeeding generations.” This DEIS fails at the outset in achieving NEPA's goals when the agency must admit that significant adverse impacts to crucial wildlife habitats are “unavoidable,” overridden by BLM's goal of increasing oil and gas development at any cost. DEIS at 4-267 to 4-268.

Response: The BLM and the Proposed Plan in the FEIS are mandated by FLPMA to operate under the principles of multiple-use, sustained-yield, and environmental integrity. These principles, although simple in theory, are difficult to put into practice. Every user of the public lands naturally wants his or her particular use to predominate, with little restriction or interference from other users. A major purpose of the Rawlins RMP is to resolve such conflicts or mitigate any adverse impacts of resource use. An equally important purpose is to protect the long-term productivity of the public lands. The Rawlins RMP thus tries to protect the economic and activity interests of all current users, while minimizing conflicts and maintaining basic soil, vegetation, and wildlife resources that future users may require. While Section 4.22, Unavoidable Adverse Impacts, does state that there might be short-term periods of significant impacts because of varying seasonal and drought cycles, the long-term management actions and mitigation measures would ensure compatibility of resource use and resource protection to the extent possible.

Comment: Pretending for a moment that the Western Heritage Alternative did conflict with some federal law or regulation, the BLM still has the responsibility to consider this alternative in detail under 40 C.F.R. § 1502.14(c). Indeed, the BLM has considered Alternative 2 in detail, which manifestly violates the provisions of both NFMA and FLPMA. Thus, even if the Western Heritage Alternative implied the violation of some federal law, the BLM's consideration of the clearly illegal Alternative 2 while failing to consider the Western Heritage Alternative would be arbitrary and capricious and an abuse of discretion, in

violation of the Administrative Procedures Act. The BLM therefore has no excuse for failing to consider the Western Heritage Alternative.

Response: Alternatives considered under 40 CFR 1502.14(c) are still required to be reasonable. Alternative 2, while not as protective as other alternatives analyzed in detail, does comply with law, regulation, and policy. See updated text in Section 2.3.3, Alternatives and Management Options Considered But Eliminated From Detailed Analysis, for updated text on the Western Heritage Alternative. BLM is not bound by the requirements of the National Forest Management Act.

Comment: Mitigation measures proposed under the four alternatives of the Rawlins RMP, which are intended to reduce the impacts of development on wildlife and other resources, are too often insufficient to achieve their intended purpose – the reduction of impacts to a level of insignificance. These shortcomings render the mitigation measures in question deficient from a practical standpoint. In addition, the BLM has too often failed to provide any scientific or technical evidence to support the effectiveness of these mitigation measures. These shortcomings render the mitigation measures deficient from a legal standpoint.

Response: The intended purpose of mitigation measures applied to management actions is to reduce impacts of an action. It is not necessarily possible in some cases, nor required, that all impacts be reduced to a level of insignificance. Hence, the purpose of an EIS is to disclose the impacts of authorized actions on the environment, and in some cases, those impacts are significant.

Comment: 2-18 to 19 BLM should define who will have a seat on the Activity Plan Working Groups. Conservation groups should have a seat on these groups. Does BLM agree or disagree? Why?

Response: Working groups will be composed of representatives from government agencies to avoid conflicts with requirements in the Federal Advisory Committee Act (FACA). The objectives, issues, situations, and structure of working groups are described in Section 2.7.2, Activity Plan Working Groups, in the FEIS. Although nongovernmental groups and individuals may not be working group members, public input will be requested through open meetings and release for comment of materials associated with working group actions.

Comment: BLM has an affirmative duty in any environmental analysis to develop, study, analyze and adopt mitigation measures to protect other resources. The ability to adopt post-leasing mitigation measures – see 43 CFR 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 USC 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.

Response: The referenced regulations indicate that “Operations are deemed to be consistent with lease rights provided they do not (1) require relocation of proposed operations by more than 200 meters, (2) require that operations be sited off the leasehold, or (3) prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2).” Thus, there are some definite limits concerning mitigation measures which can be imposed on operators. Unnecessary or undue degradation means conditions, activities, or practices that: “(1) Fail to comply with one or more of the following: the performance standards in ... the terms and conditions of an approved plan of operations ... and other federal and state laws related to environmental protection and protection of cultural resources; (2) Are not ‘reasonable incident’ to prospecting, mining, or processing operations ...; (3) Fail to attain a stated level of protection or reclamation required by specific laws in areas such as the California Desert Conservation

Area, WSRs, BLM-administered portions of the National Wilderness System, and BLM-administered National Monuments and National Conservation Areas.” (43 CFR 3809.5) Essentially, operations that are in compliance with applicable law, regulation, and policy and include appropriate mitigation are not causing unnecessary and undue degradation of the public lands.

Comment: In the Rawlins RMP DEIS, the deficiencies of the proposed mitigation measures are even more extreme, because not only has the BLM failed to provide evidence supporting their effectiveness, but Appellants have provided a wealth of scientific evidence indicating that they are in fact ineffective.

Response: The impact analysis in Chapter 4 of the Rawlins RMP FEIS has been updated to include additional scientific literature citations for research considered and incorporated into the analysis, appropriate to the discussion, evaluated, etc. Research articles or available science has been considered by the BLM; however, recommendations, assertions, and opinion made in the literature are by no means required to be incorporated verbatim into management actions. The BLM is required and has a responsibility and a legislated mandate to evaluate and consider available research within the scope of its multiple-use mandate and formulate management actions and decisions that are supported by law, regulation, and policy as well as by available science. As an example, the management actions in the Proposed Plan for management of greater sage-grouse and sagebrush-dominated habitat conform to the recommendations made in the BLM National Greater Sage-Grouse Strategy (Strategy). The Rawlins RMP DEIS did not list the majority of the scientific citations referenced in the Strategy, because the Strategy recommendations and management actions were supported by the literature citations cited in the Strategy and by the BLM and multi-agency specialists tasked with developing the Strategy. The same applies to the National Forest Initiative, the Rangeland Health Initiative, among others. The Rawlins RMP EIS is not appealable at any point in the process. Therefore, BLM does not understand your referral to BCA et al. as “Appellants.”

Comment: The BLM has not met the requirements to identify the proper scope of the project analyzed in the EIS. 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). See also BLM Handbook H-1790-1.V.B.1; BLM Handbook H-1601-1.III.A.1; 43 C.F.R. § 1610.4-1 (requiring scoping for RMPs to comply with Council on Environmental Quality scoping regulations). Other environmental reviews (such Biological Assessments and consultation for species listed pursuant to the Endangered Species Act) should be identified so that they can be done concurrently with the EIS and integrated with it. We believe the issues identified in these comments show that the scope of the EIS has not been properly defined.

Response: The Rawlins RMP DEIS and FEIS have fulfilled the requirements of CEQ found at 40 CFR 1501.7, Scoping. The scope of the RMP and the issues identified are discussed in Chapter 1, Section 1.1.1, Readers Guide to the EIS Process, and Section 1.3.1, Planning Issues, of the DEIS and the FEIS. Consultation with the USFWS has occurred throughout the RMP process according to existing policy and guidance. Section 2.3.16 of the DEIS and Section 2.4 of the FEIS include text referring to the required consultation and development of the Biological Assessment.

Comment: The present EIS is deficient by not taking a hard look at the effectiveness of the chosen mitigation measures, and particularly so given the duty to look at, and availability of, readily accessible data from projects such that totaled 1,775 oil and gas wells drilled before 1987, or 16 years ago. DEIS at 1-12. That means there is a lot of readily available data out there that BLM has ignored in evaluating the effectiveness of the mitigation measures in this case. Simply listing and not analyzing the effectiveness of these measures also results violation of NEPA.

Response: The hard look at the effectiveness of mitigation measures, BMPs, and management actions is included in the impact analysis in the FEIS. Appendix 17, Monitoring and Evaluation, identifies the process that would be followed and the types of monitoring data that would be collected and evaluated to gauge the effectiveness of management actions, mitigation, and BMPs and, in essence, the accuracy of the impact analysis. Implementation actions developed following the planning decisions in the Rawlins RMP will require, and be supported by, additional NEPA analysis conducted for all proposed surface disturbing and disruptive activities.

Comment: Off-site mitigation will be applied when certain impact “thresholds” are reached, before or after a project has been authorized.[footnote 27] Id. The DEIS, however, provides little insight on what these thresholds might be. The Appendix lists only three thresholds [footnote 28] but suggests that more might be developed over the life of the RMP. There is no indication of how BLM intends to monitor whether thresholds have been exceeded.[footnote 29]

Response: Appendix 18, Compensation (Offsite) Mitigation, includes examples of thresholds that could be used in specific situations for specific actions and states that additional thresholds could be developed over the life of the plan. The consideration of site-specific compensation mitigation and site-specific thresholds would be incorporated into the environmental analysis at the implementation level. The Introduction to Appendix 18, Compensation (Offsite) Mitigation, states that offsite or compensation mitigation would be used as a tool to address loss of habitat effectiveness, when reclamation, BMPs, and onsite mitigation measures are not adequate to mitigate the impacts of proposed actions. This is just one more tool in the tool box that would be considered. The Introduction further states that compensation mitigation would be used as a last choice, not a first choice, when developing mitigation measures. The goal for compensation mitigation is to provide protection for “in kind” habitat or resources. The intent is not to “create” new habitat but to “protect” existing habitat “offsite” by possibly purchase, conservation agreements, etc. This could also include the improvement of habitat function of habitats that may have, through succession, moved beyond the age or condition when they are most effective as a particular wildlife habitat. See the updated Appendix 18, Compensation (Offsite) Mitigation, in the FEIS.

Comment: A8-1 It is stated that the standards and guidelines apply to all uses and resources. Thus, this Appendix should be made specifically applicable to oil and gas development activities. The RMP should provide that in all oil and gas “full field development” analyses or before an APD will be approved, BLM will determine whether the standards and guidelines (and fundamentals of rangeland health) are being met in the area and would be met if the contemplated development occurred. The RMP should provide that any stipulations or conditions of approval needed to achieve the standards will be required.

Response: The BLM agrees. The Wyoming Standards for Healthy Rangelands apply to all programs. Chapter 2, Table 2-1, Detailed Comparison of Alternatives, in the FEIS has been updated to reflect this.

Comment: BLM has also failed to make a number of considerations that are required in an EIS. NEPA requires the BLM to “insure that presently unquantified environmental amenities and values” are given consideration, “recognize the worldwide and long-range character of environmental problems and thus support international efforts to prevent declines in the world environment,” and “initiate and utilize ecological information in the planning and development of resource-oriented projects.” 42 U.S.C. § 4332, 40 C.F.R. § 1507.2. See also BLM Handbook H-1790-1N. B.2.a.(3). Thus, BLM should have but failed to consider, analyze, and wherever appropriate facilitate, international efforts to prevent environmental decline. These include a number of international agreements and treaties for resource protection, such as United Nations biosphere reserves, migratory bird treaties, the Convention on International Trade in Endangered Species, and international efforts related to biological diversity preservation, among others. The EIS also fails to explicitly address unquantified environmental values and ensure they are given equal

emphasis relative to economic analyses, and ensure up-to-date ecological information was utilized in developing the EIS, as shown by the comments of the experts submitted herewith.

Response: Where international efforts to prevent environmental decline lead to U.S. national policy, law, or executive order, and regulations are promulgated to implement those policies or laws, the BLM will consider those regulations as it works to meet its multiple-use mandate. The BLM considered both quantifiable and unquantifiable resource information in the development of the RMP FEIS. Baseline information and discussion of resources are included in Chapter 3 of the RMP FEIS.

Comment: I very much appreciated the inclusion of language that allows cooperators to continue to work with the BLM in future activity level planning. This language should be carried through in the final document. Furthermore, I appreciate the insertion of the office mitigation concept. I trust that the language will be adjusted to align with the new instruction memorandum.

Response: Section 2.7.2, Activity Plan Working Groups, has been updated to conform with current policy.

Comment: pp. A17-2; “An assessment team will be established that includes disciplines, expertise, and other agency involvement for conducting a thorough and complete assessment.” Comment: It is unclear who, what and how assessment teams will function. It is recommended that this information be provided in the FEIS.

Response: Appendix 17, Monitoring and Evaluation, Assessment, has been updated in the RMP FEIS to include additional text related to assessment teams.

Comment: The summary of Alternative 2 (Emphasis on Development of Resources) states, “Resources would be protected to the extent required by applicable laws and regulations” (Page 2-17). However, a review of the management goals and actions specified in Table 2-1, especially those pertaining to Wildlife and Fisheries, reveals this alternative lacks several protections and management actions necessary for even basic conformance with FLPMA and NEPA. Therefore, Alternative 2 is a non-compliant alternative and serves no useful, analytical purpose. In fact, the preferred alternative (alternative 4), and even the resource protection alternative lack some fundamental management direction needed for conformance with FLPMA and NEPA, as outlined in several of the comments that follow.

Response: The BLM disagrees that Alternative 2 does not provide for even basic conformance with FLPMA and NEPA. Alternative 2 provides for a range of reasonable alternatives and also complies with the BLM planning handbook at H-1601-1, Appendix C, Section II.H to consider the least restrictive constraint to meet the resource protection objectives. Specific mitigation measures are built into the management actions of each alternative and provide a range of management. The BLM and the Rawlins RMP are mandated by FLPMA to operate under the principles of multiple use, sustained yield, and environmental integrity. These principles, although simple in theory, are difficult to put into practice. A major purpose of the Rawlins RMP is to consider alternative management scenarios in the context of a range of alternatives and to resolve conflicts or mitigate impacts of the various management scenarios. An equally important purpose is to protect the long-term productivity of the public lands. The impact analysis provides the manager and the public with a comparative understanding of how well each alternative meets the goals and objectives set forth in the RMP.

Comment: Page AI 7-2; Data Analysis, 1st sentence Comment: “The data collected from all monitoring, studies, and scientific results will be analyzed to determine the change that has occurred as a result of management actions.” It is not uncommon for monitoring data to be submitted, but the information is never analyzed. This represents a waste of resources on both the side of the agency and the entity

collecting the data. It is imperative that the information collected be assessed for any changes that may be necessary to enhance the goal of monitoring. A possible solution to this dilemma is suggested for inclusion into the Data Analysis Section as follows: “To further promote the adaptive environmental management process, the data collected from all monitoring, studies, and scientific results will be analyzed timely to determine the change that has occurred as a result of management action and be a contributing factor to any modifications in existing monitoring requirements. Data will also be recorded and organized to facilitate analysis that will be used to assess management actions:”

Response: Appendix 17, Monitoring and Evaluation, Data Analysis, in the RMP FEIS has been updated to include the suggested text.

Comment: pp. A17-1; Decisions, 3rd paragraph, 1sThe statement is made that “Following the ROD for the Resource Management Plan (RMP), as part of the implementation planning, a monitoring plan would be developed.” The Rawlins Field Office should solicit input from project proponents to obtain their input on the monitoring sentence.

Response: Appendix 17, Monitoring and Evaluation, Decisions, has been updated to include coordination with interested parties during development of monitoring and evaluation plans.

Comment: Please don’t use the Resource Management Plan to undermine valid and existing rights, whether it be grazing, mining, wilderness, or oil & gas leasing. Incorporate protection into the RMP to protect those rights. Don’t let environmental extremists manipulate the RMP to disallow any rights.

Response: The laws, regulations, and policies referenced in the FEIS in Section 1.4, Relevant Statutes, Limitations, and Guidelines, all guide the BLM in its responsibility to consider valid existing rights and meet the goals and objectives identified in the plan. The RMP FEIS recognizes valid existing rights (such as oil and gas leases) and needs (such as grazing) involving public lands as well as the need to maintain or enhance the natural values in the RMPPA.

Comment: Mechanisms available for resolving conflicts between development and other resource values should be clearly identified in the EIS and adopted in the RMP. Closure of some lands to some uses, such as oil and gas development or logging or grazing, is specifically acknowledged as a means to achieve desired outcomes for other resource values. BLM Handbook H-1601-1.II.B.2. We believe BLM needs to take another, more thorough look at the options available to it. Ultimately, the requirement for BLM to prevent unnecessary or undue degradation of the public lands and sustain the natural values of those lands should propel the agency's management choices.

Response: The RMP FEIS Chapter 2 alternatives include a range of mechanisms to resolve conflicts between development and other resource values. All management actions, mitigation measures, BMPs, and monitoring are designed to reduce or resolve conflicts between resource use and resource protection. Undue or unnecessary degradation is defined in a number of places in BLM regulation and policy. Essentially, operations that are in compliance with applicable law, regulation, and policy and include appropriate mitigation measures and/or BMPs do not cause unnecessary or undue degradation of the public lands.

Comment: We also believe that the land management plan should incorporate monitoring and adaptive management principles to assure that effects on ecosystems are detected, and these ecosystems are protected while multiple use activities occur.

Response: Refer to Section 2.7, Monitoring and Evaluation Plan and Activity Plan Working Groups, in the RMP FEIS.

Comment: BLM must bear in mind that the “primary purpose” of an EIS is to “insure that the policies and goals defined in [NEPA] are infused into the ongoing programs and actions of the Federal Government.” 40 C.F.R. § 1502.1. The policies and goals of NEPA include, • Encouraging a “productive and enjoyable harmony between man and his environment”, • Promoting “efforts which will prevent or eliminate damage to the environment and biosphere”, • Using “all practicable means and measures...to create and maintain conditions under which man and nature can exist in productive harmony...”, • Fulfilling “the responsibilities of each generation as trustee of the environment for succeeding generations”, • Assuring “all Americans safe, healthful, productive and esthetically and culturally pleasing surroundings”, • Allowing beneficial use of the environment “without degradation...or other undesirable or unintended consequences”, • Preserving “important historic, cultural and natural aspects of our national heritage...”, • Achieving a “balance between population and resource use...”, and • Enhancing “the quality of renewable resources” and maximizing recycling of depletable resources. 42 U.S.C. §§ 4321-4331. See also BLM Handbook H-1790-1.V. B.2.a.(3). The BLM has failed to “insure” that these considerations are “infused” into oil and gas leasing, exploration, and development activities considered in the EIS and authorized by the RMP.

Response: Section 1.4, Relevant Statutes, Limitations, and Guidelines, lists many of the environmental laws, including NEPA and FLPMA, that apply to the management of the public lands and the selection and implementation of the management actions for the RMP. BLM is required to consider all of these laws as it balances the multiple-use demands on the public land.

Comment: Part of the reason the BLM failed to properly define the scope of the RMP is that it did not hold early scoping meetings, as provided for by CEQ regulations so that the public can be fully informed of and participate in the RMP revision process. 40 C.F.R. § 1501.7(b). The meetings did not occur at times and places that allowed the participation of people who do not live within the geographic boundaries of the RMP, or even within the State; for example, telephone conferences or web-based scoping meetings should have been held. See BLM Handbook H-1790-1.V.B.c.4 (encouraging use of “a variety of methods and mediums” for facilitating public participation in the scoping process).

Response: The scoping process conducted for the Rawlins RMP was appropriate to, and consistent with, agency policy and guidance. The discussion of the scoping process, including the Scoping Notice, Scoping Meetings, and Mailing List, is found in Section 1.1.1, Readers Guide, Scoping Period, and in Section 5.2.1, Scoping Period, of the DEIS and FEIS.

Comment: A-32 Essentially Appendix 32 needs to be upgraded from a general background paper on hazardous waste management principles to a clear statement of what BLM will do and require to guard against the release of hazardous wastes. Once this is done, Appendix 32 should be made a binding requirement on all activities, particularly oil and gas development activities, which the appendix acknowledges is “One of the highest potential sources for contaminant releases...” Appendix 32 should be referenced throughout Table 2-1, particularly with respect to being a binding requirement on oil and gas operations (see 2-28).

Response: Appendix 32, Hazard Management and Resource Restoration Program, is sufficient, as written, to provide the necessary guidance under applicable law, regulations, and policies during authorization of actions and activities on the public land.

Comment: the mission of the Bureau of Land Management, of which you are an official, is not to play the public lands of this Nation into the hands of the profit-making corporations of the Nation. Those lands belong neither to those corporations nor to the government of which you are a valuable functionary. They belong to the People as a whole. Your Bureau is charged to manage them on behalf of the people, its

owners. That is an airy ideal which is often not reached. In this case, Sir, you must make the most earnest effort you can to fulfill the Bureau's mission in your location.

Response: The BLM Mission Statement can be found on the inside front cover of the FEIS. The mission of the BLM and BLM's charge to manage the public lands on behalf of the American people are embodied in all of the laws passed by Congress, laws which include direction to manage the use of public land resources and protection of sensitive resources, both for the benefit of the American people now and in the future.

Comment: COMPENSATION (OFF-SITE) MITIGATION - APPENDIX 18 Comment: While we recognize that many companies have offered to perform off-site mitigation, several concerns must be raised. It is troublesome that this program is intended for use only by energy producers. Once again, oil and gas operators have been singled out for a unique program apparently because it is expected they can pay for measures that go beyond the already comprehensive mitigation requirements in place. Moreover, we have noted that BLM cites the Council on Environmental Quality regulations at 43 CFR 1502.20 as authority for developing a policy for off-site mitigation. It is ironic, however, that the requirements of the National Environmental Policy Act (NEPA) apply to all users of public lands, not simply the oil and gas industry. Therefore, it is inappropriate to expect just one user to perform off-site mitigation when none of the other users will be subject to the same requirements.

Response: The text of Appendix 18, Compensation (Offsite) Mitigation, has been updated in the FEIS to make it clear that compensation mitigation could be used in response to impacts resulting from any resource use or program.

Comment: In the comparison of Total Emissions, all alternatives predict a steady increase in air pollution from 2003 to 2023. There is no alternative that would hold airborne pollutants to the current level being experienced as of 2003. Even the so-called "Resource Protection Alternative" would cause a 50% increase in air pollution within the planning area. DEIS at 4-10. Given the fact that oil and gas development was heavy and rapid during 2003, it would seem to be unreasonable that there is no alternative that holds airborne pollutant levels at the 2003 level, or indeed below these levels, as the 2003 air pollution levels do not include the use of Best Available Control Technology on drilling rigs or production facilities, nor do they represent any particular effort to minimize air pollution beyond the standard, nominal measures. Viewed by pollutant constituents, there are major increases forecast under all alternatives for nitrogen oxides carbon monoxide, and volatile organic compounds. See Tables 4-21 through 4-24. Here, the same problem applies: Why is there not an alternative that reduces these increases to zero, or even causes net decreases in air pollution? What measures would be required to lower pollutant levels to meet this goal? These important questions should be answered in the FEIS.

Response: The alternatives were developed by the Field Office and reflect best available approaches. The Wyoming DEQ may wish to impose additional control for site-specific development projects.

Comment: Please consider off-sit mitigation when and where possible

Response: Compensation (offsite) mitigation is available as a management option, where appropriate. Appendix 18, Compensation (Offsite) Mitigation, has been updated in the RMP FEIS.

Document and Editorial Comments

Comment: The DEIS clarified what is considered “surface disturbance” but retains a very restrictive and unsupported definition of “disruptive activities.” The DEIS imposes restrictions on all land uses through regulation of disruptive activities without providing scientific or factual basis for the restrictions. The definition of “disruptive” includes no criteria with which to ascertain levels of significance associated with various different activities; consequently, virtually any and all activity would be considered disruptive. The assumption that activities requiring personnel to remain in an area for more than one hour is disruptive is without merit. The term is being used in the DEIS as a catchall for applying additional stipulations and conditions of approval (COAs) on activities that will likely not result in any impact on resources and may or may not provide the anticipated level of protection.

Response: The term or concept of “disruptive activities” as part of management actions and impact analysis considers the nonsurface disturbing impacts of human activities conducted on the public lands. The use of the term “disruptive activities” and management actions, stipulations, and BMPs designed to reduce impacts from disruptive activities are not intended to preclude authorized activities but influence how they are accomplished. Management actions to reduce disruptive activities in sensitive areas found in Appendix 15, Best Management Practices, are designed to reduce the impacts caused by continued human presence in areas of sensitive habitat or resources. This increased emphasis on disruptive activities is the result of monitoring results and professional opinion that increased human presence, caused by increased industrial development and recreational activities, has caused increased levels of stress to wildlife and increased avoidance of preferred habitat. See the updated definition of “disruptive activities” in the Glossary of the RMP FEIS.

Comment: I also object to the definition of “intensive management.” As defined, “Intensive management” implies that during the course of ordinary management, BLM does not require operators to comply with stipulations or conditions of approval imposed on their activities. This is hardly the case. Yet, it is necessary for the definition to acknowledge that even under Intensive Management, BLM’s action must “Ensure that such mitigation is either statutorily required or scientifically justifiable and is the least restrictive measure.”

Response: The definition of “intensive management” is included in the Glossary of the RMP FEIS. The definition has been expanded to include additional reference to the various appendices that contain the BMPs important to support the management actions in Chapter 2 that refer to intensive management. The definition has also been expanded to clarify how the application of intensive management would influence on the ground management actions.

Comment: BLM should totally revise the impact analysis in the EIS. Currently impacts are presented resource by resource. We are told, for example, in piecemeal fashion, how grazing will impact water quality, and how oil and gas development will affect water quality, and how recreation would impact water quality, and how telephone and fiber optic installations will affect water quality; and so on. This approach is very uninformative. It is extremely difficult to deduce what the overall impacts of oil and gas development will be. After reading the EIS there is no real clear understanding of what the major impacts would be from implementing actions in the preferred alternative. Perhaps some indication of what the most significant impacts will be could be derived if a reader or the agency laboriously went through and tabulated impacts that would result from major actions under the preferred alternative, but the EIS should not leave this to the reader, it should present this information in a clear, readable form.

Comment: The amount of scientific literature referenced in the Draft EIS is shockingly thin for the impacts analyses for many different resources.

Response: The impact analysis in Chapter 4 of the Rawlins RMP FEIS has been updated to include additional scientific literature citations for research considered and incorporated into the analysis, appropriate to the discussion, evaluated, etc. Research articles or available science has been considered by the BLM, however, recommendations, assertions, and opinion made in the literature are by no means required to be incorporated verbatim into management actions. The BLM is required and has a responsibility and a legislated mandate, to evaluate and consider available research within the scope of its multiple-use mandate and to formulate management actions, mitigation measures, BMPs, and eventual decisions that are supported by law, regulation, and policy as well as by available science. As an example, the management actions and mitigation measures in the Proposed Plan for management of greater sage-grouse and sagebrush-dominated habitat conform to the recommendations made in the BLM National Greater Sage-grouse Strategy (Strategy). The Rawlins RMP DEIS did not list the majority of the scientific citations referenced in the Strategy, because the Strategy recommendations and management actions were supported by the literature citations cited in the Strategy and by the BLM and multi-agency specialists tasked with developing the Strategy. The same applies to the National Forest Initiative and the Rangeland Health Initiative, among others.

Comment: BLM summarily rejected the Western Heritage Alternative (WHA) submitted by NWF, WWF, NRDC, and others stating that it would result in closure of 90% of the planning area to oil and gas development. DEIS at 2-4. There is no explanation provided for this conclusion. [footnote 5] Even if true, however, the conclusion that a substantial portion of the planning area would be closed to oil and gas development under the WHA is not sufficient justification for refusing to even investigate the benefits of such an alternative. Environmental analysis must “[r]igorously explore and objectively evaluate all reasonable alternatives.”

Comment: It is not our recommendation that the BLM implement a “no future leasing” alternative. It is our belief that such an alternative would be rendered superfluous if the Western Heritage Alternative, with its clustered wellfield development, emphasis on No Surface Occupancy stipulations for sensitive landscapes, and withdrawal from future leasing of roadless/wilderness quality lands were implemented. But the legality and reasonableness of a “no future leasing” alternative does serve to demonstrate how reasonable (and indeed, generous to oil and gas interests) the Western Heritage Alternative really is. And while public interest groups have no obligation to back a “no future leasing” alternative, the BLM has a legal obligation through NEPA to consider this alternative in detail and respond to it in the FEIS.

Response: The Western Heritage Alternative was determined to not be a reasonable alternative because of, among other things, the excessive acreage of NSO restriction proposed in the alternative. See updated text in the Rawlins FEIS, Section 2.3., Alternatives and Management Options Considered But Eliminated From Detailed Analysis, Western Heritage Alternative.

Comment: A18-1: “Compensation mitigation practices must last as long as the impacts are expected to occur.” Instruction Memorandum No. 2005-069 states, “Offsite mitigation need not be permanent but should be of duration appropriate to the anticipated impact(s) being mitigated.” See, Instruction Memorandum No. 2005-069 at p. 3. This excerpt makes it clear that off-site mitigation need not be permanent. The above language from Appendix 18 of the Rawlins RMP, however, does not make it clear that off-site mitigation need not be permanent. Recommendation: the BLM should strike the above sentence and replace it with the following: Compensation mitigation practices need not be permanent, but must last as long as the impacts are expected to occur.

Comment: The DEIS was difficult to review because of its complexity, great size, and organization. The document could be improved to better accommodate the reader by placing appropriate heading at the top of each page and by providing page numbers for tables.

Comment: It is our general comment that a number of the terms defined in the Glossary are inconsistent with other BLM generated definitions on the very same term. Please review these Glossary terms prior to the Final document for consistency with other recent BLM Land Use Plans so that the public can be assured of consistency among BLM Field offices on this subject.

Response: Thank you for your comment and your interest in the Rawlins RMP. All editorial, document content, and document adequacy suggestions will be reviewed, considered, and applied to the RMP FEIS, where appropriate.

Comment: Appendix 17: Please provide a more detailed monitoring plan in the Final EIS. One concern is the frequency of monitoring and the importance that it include quantified and measurable resource objectives for riparian and aquatic, listed species, upland vegetation, and other resource improvements.

Comment: Page A17-1: “Following the ROD for the Resource Management Plan (RMP), as part of the implementation planning, a monitoring plan would be developed.” **Comment:** The Rawlins Field Office should disclose who is going to develop the monitoring plan and also provide the authority for that action.

Response: The RMP FEIS provides for monitoring of all resources to meet the identified goals and objectives of the RMP FEIS. The introductory text of Appendix 17 describes the process under which monitoring would be used to ensure that predicted impacts to environmental resources have not been exceeded and that mitigation measures are sufficient. Appendix 17 describes the various types of monitoring data that would be collected and evaluated during implementation of the Rawlins RMP as well as the various triggers that would require consideration for management adjustments. BLM will coordinate with other federal, state, and local land and resource management agencies (WGFD, USFWS, NRCS, etc.) where appropriate, when issues of state or federal authority are evident. As an example, any monitoring of wildlife populations would be coordinated with the WGFD and USFWS as appropriate. Appendix 17 of the FEIS also has been updated to stress habitat conditions in addition to animal numbers. See the revised Appendix 17, Monitoring and Evaluation, in the RMP FEIS.

Comment: Unfortunately, we find it impossible to support the preferred alternative because it would impose unrealistic and excessively restrictive management upon exploratory and in-fill development opportunities as outlined in our section-specific comments. It is also impossible to support the purported development alternative because as written it implies laws and regulations would be abandoned in favor of development. The oil and gas industry has demonstrated its commitment to working far beyond the legal and regulatory parameters for operating on public lands. Therefore, we object to what could be purported as an industry alternative because it disregards efforts to minimize impacts from such activities. At this time, neither can we support any of the alternatives analyzed in the DEIS because we believe the analysis and assumptions are flawed.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: Chapter 3 Affected Environment and Chapter 4 Environmental Consequences: These chapters contain information about impacts on resource-use activities on environmental attributes. These chapters should be limited to impacts to the environment, as the titles suggest. For example, ORV use and livestock grazing are resource-use activities and are not natural resources. More emphasis should be placed on how these resource-use activities impact natural resources.

Response: Chapter 3, Affected Environment, and Chapter 4, Environmental Consequences, do indeed contain discussion of resource use activities. These resource use activities—such as oil and gas development, livestock grazing, and recreation use—are all elements of the human environment

(economic or social environment) and are interrelated and connected to the natural and physical environment, and therefore appropriately discussed in the RMP FEIS.

Comment: As indicated, the EIS suffers greatly from BLM's efforts, time and time again, to put off any analysis of impacts to some undefined time in the future. Yet this is impermissible. *Kern v. U.S. Bureau of Land Management* 284 F.3d 1062 (9th Cir. 2002). As recognized by the Kern court, an agency may not avoid an obligation to analyze in an EIS environmental consequences that foreseeably arise from an RMP merely by saying that the consequences are unclear or will be analyzed later when an EA is prepared for a site-specific program proposed pursuant to the RMP. “[T]he purpose of an [EIS] is to evaluate the possibilities in light of current and contemplated plans and to produce an informed estimate of the environmental consequences... Drafting an [EIS] necessarily involves some degree of forecasting. *Id.* at 1072 (citation to internal quotation omitted).” The Kern court when on to state, “NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment. Rather, it is designed to require such analysis as soon as it can reasonably be done.” *Id.* at 1072. BLM's impacts analysis in the EIS fails to meet these standards.

Response: The Rawlins RMP FEIS does not postpone the analysis but provides the umbrella resource management plan level analysis appropriate to support subsequent future program level and site-specific NEPA analysis of project level activities where the proposed actions are more accurately defined. The BLM has not avoided its obligation to analyze in an EIS environmental consequences that would foreseeably arise from an RMP. The RMP FEIS Section 4.1, Methods and Assumptions, includes the assumptions on which the impact analysis is based. Appendix 33, Reasonably Foreseeable Developments and Reasonably Foreseeable Actions (RFD/RFA) Tables, includes the estimates of management actions anticipated to occur. The RFD/RFA are naturally broad estimates of activity likely to occur and do not allow for the site-specific impact analysis and disclosure the commenter suggests. The impact analysis appropriate to a resource management plan level analysis has been updated in the RMP FEIS.

Comment: 4-166 More generally, BLM should ensure that all significance criteria in the EIS are tied to the goals for a particular program, and relative to each of those goals BLM should clearly state whether the impacts are anticipated to be significant, non-significant, some of both, or undeterminable, relative to all major resources, including air, water, soil, and wildlife resources.

Response: Chapter 4 in the RMP FEIS includes the impact analysis of management actions on the environment, and where those impacts are determined to be significant, it is so noted.

Comment: The focuses of the plan should be expanded to include the major resource management requirements specified by NEPA and FLPMA. [See attached supporting material] i. Fish and wildlife development and utilization; ii. Analysis and designation of ACECs; iii. Management to sustain ecological components, functions, and processes; and v. Management to sustain fish and wildlife habitat. (Abstract, Para 1)

Response: The major resource management requirements specified in NEPA and FLPMA are embodied in the planning issues found in Section 1.3.1, Planning Issues, in the RMP FEIS.

Comment: 2-5 to 2- 16In this section dealing with actions common to all alternatives BLM has made a recurring mistake. It has treated the particular resource issue as incredibly static and subject to no variation, and thus no optional or alternative approaches.

Response: In Section 2.4, Management Actions Common to All Alternatives of the RMP FEIS, the introductory paragraphs make it clear that management actions common to all alternatives can result because of limitations on management of resources and land use programs as a result of various laws and

regulations that govern BLM decisions. In other cases, where actions from the existing Great Divide RMP were found to be meeting BLM current goals and objectives, alternatives to acceptable management direction were found to be unnecessary. Also, management actions common to all alternatives were not influenced by findings and deficiencies that resulted from the evaluation of the existing Great Divide RMP in 2001. The BLM planning guidance does not require that there be alternatives to all actions analyzed in the RMP.

Comment: 2-5 It is stated that “Where management actions from the existing Great Divide RMP were found to be meeting BLM’s current goals, alternatives to acceptable management direction were found to be unnecessary.” What does this mean? Where, when and by who were these findings made? Where are the findings documented and available for public review and comment? Furthermore, this limitation greatly reduces the ability to consider reasonable alternatives. If BLM has summarily found existing methods of oil and gas development is “meeting BLM’s current goals” then no consideration of options for how oil and gas is developed would be considered in the EIS. That is an unreasonable limit on the options and alternatives considered in the EIS.

Response: The referenced text is found in Section 2.4, Management Actions Common to All Alternatives. As stated in this section, some management actions are consistent across all alternatives, because actions have been carried forward from the existing Great Divide RMP. Not all individual actions in the RMP are required to have reasonable alternatives. The need to complete a revision of the Great Divide RMP resulted from the evaluation of the Great Divide RMP completed in 2001. Not all areas of the existing plan were found to be deficient or in need of revision. The Management Actions Common to All Alternatives were presented in the RMP DEIS and were open to public comment during the public comment period on the RMP DEIS. Management actions for oil and gas development vary by alternative in the RMP FEIS.

Comment: [Page ES-2, “Issues and Conflicts”] While the issue is addressed in the main body of the document, there is no specific reference in this summary to the conflict of some activities like energy development with the preservation of cultural resources.

Response: The RMP FEIS Summary section, Issues and Conflicts, in the RMP FEIS has been updated to include cultural resources under the first bullet.

Comment: THE GREAT DIVIDE DEIS FAILS TO TAKE A HARD LOOK AT ENVIRONMENTAL IMPACTS NEPA’s purpose is to maintain a national “look before you leap” policy in regard to all major federal actions. Congress’ intent in establishing this objective was to avoid uninformed agency decisions that could have serious environmental consequences. Thus, 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)(emphasis added). 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).

Response: The BLM did take a hard look at the environmental impacts of the Proposed Plan and alternatives appropriate to a resource management planning level analysis. Chapter 4, Environmental Consequences, has been updated in the RMP FEIS. The discussion of irreversible and irretrievable commitments of resources is found in Section 4.21 of the RMP FEIS.

Comment: I like BLM recommendations on alternative 4 Table 2-1 with some suggestions and changes. VRM Class II recommends a 2 mile view shed or visual horizon to deal with the scenic impact. I feel a 3 mile view shed would be more in keeping with protection of pristine trail segments. Intensive management of the trail with existing and future leases is great if this means permitting on a case by case basis and mitigation whenever impact potential occurs. Pipelines and new road development should be minimized or non-existent on the NSO areas. Mitigation monies need to be provided for further signage on contributing segments and non-contributing segments. Unevaluated portions of the trails need to be surveyed and identified and then signed. Monitoring programs need to be in place with at least twice yearly investigation along the trails perhaps using a volunteer system. Then annual reports need to be generated and posted for public review. Do you have key observation points (KOP) identified? What about monitoring with GPS and photo documentation? Is there wording to provide for a Programmatic Agreement process and public working groups to provide help and guidance?

Response: After careful consideration of the alternatives, the BLM has changed its decision to define the area within 2 miles or the visual horizon of contributing segments of historic trails as VRM Class II. The protections afforded to historic trails from the NHPA supplemented by the management actions in the FEIS will adequately protect the contributing setting of trails. Please see the updated text in Table 2-1 of the Rawlins FEIS for management actions specific to the setting of the historic trails. Monitoring is established as needed to ensure protection of historic properties in sensitive areas, such as areas of intensive development or heavy public use. For a description of specific BMPs that will be used in protecting the setting of NRHP eligible properties, such as the trails, please see updated text in the Rawlins FEIS Appendix 5, Cultural Resources Management.

Comment: While somewhat comical and clearly a typographical error, the reference to “the life history requirements of desired fishes” in the Glossary definition of “desired future condition”, is reflective of the overall lack of clear objectives in the DEIS.

Response: The definition of “desired future condition” in the Glossary of the RMP FEIS has been updated. The definition as written is appropriate and correct as desired future condition in the RMP FEIS applies to Wildlife and Fisheries habitat objectives.

Comment: Throughout the DEIS, the spelling of Partners In Flight is incorrectly spelled as Partners in Flight. Change the spelling to Partners In Flight. [Entire DEIS]

Response: Thank you for your comment. Your suggestion is reflected in the FEIS.

Comment: Page 4-4, Fourth Bullet: “Funding would be available to implement the alternatives described in Chapter 2.” Basing analyses in this document on the assumption that funding will be available to implement the alternatives in Chapter 2 is not appropriate given the vagaries of federal funding. APC is concerned that BLM has not identified how it will manage the public lands or what the consequences will be if full funding for management under any alternative does not materialize. Recommendation: BLM should not utilize this assumption. Instead, the document should be revised to include a discussion

Response: The assumption that funding would be available to implement the alternatives described in Chapter 2 is required to avoid the very type of discussion you recommend. To not assume that funding would be available to fully implement the RMP requires the BLM to then develop various scenarios of less than adequate funding for each alternative and describe the anticipated impacts of each scenario. This would add to the RMP FEIS needless analysis that is entirely speculative.

Comment: Table 2-1 Summary Comparison of Alternatives: The DEIS does an extremely poor job of describing the range of alternatives. While Table 2-1 indicates that the goals of Alternatives 1 and 4

would be to “provide opportunities for leasing, exploration and development of minerals and oil and gas while protecting other resource values,” the description of Alternative 2 indicates that leasing, exploration and development of minerals and oil and gas would be emphasized while maintaining other resource values “to the extent possible.” Alternative 3 would provide enhanced protection for other resource values. One would assume from these descriptions that BLM has the authority to choose whether or not to follow the law and rules and regulations imposed upon oil and gas operations. Yet, it is clarified in the DEIS under section 2.3 Management Actions Common to All Alternatives, that air/water quality, cultural/paleontological, wilderness study areas (WSA) and wildlife resources will be protected. Therefore, despite the level of development provided for in any given alternative, resource values must always be protected. The only true difference among alternatives would be the use of special designations, i.e., areas open for leasing and development and under what constraints. However, even if certain areas were left open to such activities, protection of other resource values is still a requirement under the law. We take exception to the notion that other resource values would only be protected only “to the extent possible.” Comment Revise the wording of Alternative 2 to comport with existing laws and regulations.

Response: The management actions, stipulations, and mitigation measures that appear in Alternative 2 are those that are legally binding by legislated mandate and executive order, etc., in this case, the raptor protections required by the Migratory Bird Treaty Act and the Bald Eagle Protection Act. Management actions in Alternative 2 would primarily work to maintain wildlife populations and habitat instead of to enhance populations and habitat. This alternative, while less savory to some, does provide management sufficient to meet current planning requirements and current law, regulation, and policy. As an example, Alternative 2 allows for development of surface disturbing activities in crucial winter range during the winter. There is no existing law that requires that the BLM exclude winter development in crucial winter range. Current MOUs or agreements may have to be voided, if this alternative were chosen, but the alternative is a viable alternative. In addition, Alternative 2 provides, in the impact analysis in Chapter 4, a comparison and justification that the winter restriction on winter development in CWR is reasonable and supportable. The impact analysis for Alternative 2 does not identify any situation where a species or habitat would not persist in the face of the identified development.

Comment: [Glossary] Necessary Tasks: The term is defined as “Work requiring the use of a motorized vehicle.” It is not clear why BLM believes it needs this definition. In the document BLM imposes numerous restrictions on “necessary tasks” without any analysis regarding the need for the restrictions and in numerous instances without any apparent justification. For example, on page 4-73, BLM states: “Vehicles used for authorized activities would be prohibited from driving off existing roads for necessary tasks in some SMAs.” Recommendation: BLM should revise the document to provide a clearer explanation of the need for the definition and how it will be applied. In addition, in those instances in which BLM believes “necessary tasks” should be restricted, it should provide an analysis of the potential impacts of such restrictions.

Response: See the revised definition of “necessary tasks” in the Glossary of the RMP FEIS. BLM may restrict the use of motorized vehicles to protect sensitive resources in specific areas. These restrictions would limit the ways in which an authorized activity may be conducted.

Comment: Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the Rawlins Resource Management Plan DEIS has been rated as Category EC-2 (Environmental Concerns - Insufficient Information). A copy of EPA's rating criteria is attached. The EC rating means that, there are environmental concerns regarding potential impacts to ecosystem processes, air quality, water quality and habitat quality. The “2” means the FEIS should include additional information to respond to our

comments and concerns in order that the RMP and EIS provide a complete and consistent guide to managing the area, and to fully assess and mitigate all potential impacts of the management.

Response: The BLM has included additional information that strengthens the presentation of both management actions and environmental analysis in the RMP FEIS. The Rawlins RMP provides a complete and consistent guide for management of the RMPPA and to carry that guidance into the Implementation Plan and activity level and site-specific level planning.

Comment: RECOMMENDATION: If this DEIS is justified based on deficiencies in the existing Great Divide RMP, then provide a list and rationale for these deficiencies.

Response: The justification for the development of the Rawlins RMP Revision and EIS is found in Section 1.2.2, Purpose, and Section 1.2.3, Need, in the RMP FEIS. The primary impetus behind the revision was deficiencies and recommendations that came through BLM evaluation of the Great Divide RMP completed in July 2001.

Comment: In the definition of “Consistency”, what are the criteria for what is, or is not, an “officially approved plan”?

Response: The discussion of the consistency of the Rawlins RMP with other officially approved and adopted resource-related policies and programs is found in Section 1.5, Relationship with Other Plans, of the RMP FEIS.

Comment: Many of the proposed Special Management Areas (“SMAs”) would feature “intensive management” of oil and gas development as the primary means of protecting the sensitive resource values of these areas. Intensive management is defined as possibly incorporating Best Management Practices from the appendices. See DEIS at G-10. However, the key part of the definition is as follows: “Management may include attaching conditions of approval to specific projects or additional planning recognizing the unique resources for which the area is managed; typically these would be more restrictive than standard management and would be designed for specific projects and locations.” DEIS at G-10. Conversely, however, it would appear that management may not include attaching Conditions of Approval or providing additional planning. This leaves open the possibility that no protection or special management at all will be provided: Thus, the “intensive management” provision for some SMAs actually does not commit that agency to protecting the resources in question. But perhaps the biggest problem about “intensive management” is that it improperly defers planning and analysis of protective provisions that manage SMAs from the RMP DEIS, the proper venue for dealing with land-use planning, to some nebulous future time. The public deserve to see in detail the management plans for the various proposed SMAs under each alternative, to have a range of management schemes for each SMA to comment on, and to have their input considered as part of the Rawlins RMP DEIS. The current reliance on undefined “intensive management” for SMAs in the Rawlins RMP is therefore an inappropriate course of action.

Response: The BLM disagrees that the RMP is the appropriate venue to describe detailed management plans and alternatives for each of the SD/MAs. Section 1.3, Overview of the BLM Planning Process, details the three tiers of the BLM planning process. The second tier, Activity Planning, is the appropriate time to develop detailed plans and those plans will include the consideration of any BMPs necessary to protect the sensitive resource values for which the SD/MA was established.

Comment: Appendices. The Pinedale Anticline EIS contains a much more comprehensive “Best Management Practices (BMPs) and Guidelines for Surface Disturbing Activities.” Why has this not been used? BMPs for energy development should be consistent and comprehensive across Field Offices boundaries.

Response: Appendix 13 and Appendix 15 in the RMP FEIS have been updated to include additional introductory text and additional BMPs to be considered.

Comment: Qualitative Basis of RMP Analyses. Throughout the RMP, BLM stipulates many of its analytical approaches are “qualitative.” This is especially problematic with respect to the description of existing resource conditions and the analysis of impacts. It is also problematic with respect to proposed methods for evaluating the ecological health or condition of resources BLM manages. In order to adequately manage resources, BLM must collect good inventory data and monitor the condition of those resources. In some cases, we believe quantitative information is available from other sources, which should be referenced as useable in the RMP. We feel the RMP should be improved by incorporating more quantitative resource data, and by setting forth more quantitative and objective procedures for monitoring the condition of resources. Quantitative procedures are essential for documentation and for public accountability.

Response: The RMP FEIS includes both quantitative and qualitative analysis of impacts. The Methods and Assumptions section of Chapter 4 lists the analysis-identified resources that would be altered based on management actions and then predicted changes to these resources. The Methods of Analysis section under each resource or program heading in Chapter 4 makes it clear that the impacts would be quantified where possible. The Methods and Assumptions section also states that a judgment as to the significance of the predicted change was made. This is often a qualitative determination. Appendix 17, Monitoring and Evaluation, has been updated in the RMP FEIS to include reference to the need to collect additional inventory information.

Comment: A17-1: “Following the ROD for the Resource Management Plan (RMP), as part of the implementation planning, a monitoring plan would be developed.” Recommendation: The Rawlins Field Office should disclose who is going to develop the monitoring plan and also provide the authority for that action.

Response: The BLM is responsible for the development of a monitoring plan to track progress toward full implementation of the land use plan and the achievement of desired outcomes. The regulations at 43 CFR 1610.4-9 require that land use plans establish intervals and standards for monitoring and evaluations, based on the sensitivity of the resource decisions involved.

Comment: Page ES-15; Public Involvement - 26,745 comments received during scoping Comment: Although PAW and PLA recognize the extensive interest in the development and protection of resources located on public lands, in order to present a balanced view of the public involvement, it would be helpful if BLM were to categorize the comments received. For example, BLM could note how many were postcard comments; how many commenters were residents of the United States and Wyoming, etc.

Response: Thank you for your comment. In the FEIS, the appendix of comments and responses will include this information.

Comment: Purpose and Need Section 1.2.3 This section needs to clearly incorporate BLM's mandate under FLPMA to provide for multiple use of federal lands. As currently drafted, the document fails to mention BLM's responsibilities. Environmental justice (Executive Order No.12898) was not included in the old Great Divide RMP; and there is no mention of these other relevant executive orders (EO) in the new RMP. Comment: Provide sites to and descriptions of the following EOs: •Executive Order No. 11990 (Protection of wetlands) •Executive Order No. 11988 (Floodplain Management); •Executive Order No. 11987 (Exotic organisms) is described on page 1-15. However, this EO was revoked by EO 13112 (Invasive Species) on 3 February 1999 and amended by EO 13286 on 28 February 2003. The correct citation should be: Executive Order No. 13112 (Invasive species), as amended. •EXECUTIVE ORDER

No. 13211 of May 18, 2001 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use). Because this EO directly affects BLM energy decisions and policies in Wyoming, it should be included in the final RMP EIS. A discussion of this EO is warranted to include its effect(s) on energy exploration, development, and production.

Response: The multiple-use mandate of FLPMA and many of the other varied federal laws that guide the multiple-use management of the public lands are clearly identified in Section 1.4, Relevant Statutes, Limitations, and Guidelines, found in the RMP FEIS. Environmental justice issues and consideration of Executive Order 12898, Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations, is addressed in Sections 3.12.5 and 4.12 of the RMP FEIS. Section 1.4, Relevant Statutes, Limitations, and Guidelines, has been updated in the RMP FEIS.

Comment: The BLM would make a big mistake in my opinion if it were to carry through by giving the game and fish department the authority to grant exemptions and waivers. It just doesn't make sense for a state agency to regulate federal land. Please amend Appendix 9 of the RMP, the exception and waiver criteria.

Response: Appendix 9 in the RMP FEIS has been updated to clarify how BLM will coordinate with WGFD.

Comments Received During Supplemental ACEC Comment Period

Comment: The first and foremost issue is why is special management attention necessary “to protect and prevent irreparable damage.” The planning record is bereft of documentation that special management for the proposed areas is needed to avoid irreparable damage. Instead the report and the planning record focuses solely on the resources identified, not the reason that the areas require special management.

BLM lacks the discretion to ignore this requirement. The planning rules also require documentation of the threat of irreparable resource damage. 43 C.F.R. §1601.1-5. The planning rules adopt the FLPMA definition with the additional caveat “The identification of a potential ACEC shall not, of itself, change or prevent change of the management or use of public lands.”

Comment: The ACEC documentation fails to address the critical factor of why special management is needed to prevent irreparable damage. The RMP draft and analysis focus solely on importance and relevance, rather than the need for special management. The ACEC inventory addresses these two criteria but the actual decision must document the need to avoid “irreparable damage.” This has not yet been documented and all of the proposed ACECs as a result fail to meet the FLPMA definition.

Comment: The Draft RMP does not comply with BLM’s obligations under the Federal Land Policy and Management Act (FLPMA) to prioritize designation and protect ACECs, because it does not designate ACECs where necessary and appropriate and does not include sufficient protective management prescriptions for proposed ACECs. In particular, there are a number of ACECs in the Western Heritage Alternative submitted to BLM prior to the issuance of the Rawlins RMP DEIS which meet relevance and importance criteria, yet were not considered for designation at all, or only partially considered for designation, in the DEIS. BLM should take this opportunity to designate appropriate and warranted ACECs, and set out protective management prescriptions in the Proposed RMP/Final EIS.

Comment: BLM’s ACEC Manual (1613) provides additional detail on the criteria to be considered in ACEC designation, as discussed in the applicable regulations, as well. See, Manual 1613, Section .1 (Characteristics of ACECs); 43 C.F.R. § 8200. An area must possess relevance (such that it has significant value(s) in historic, cultural or scenic values, fish & wildlife resources, other natural systems/processes, or natural hazards) and importance (such that it has special significance and distinctiveness by being more than locally significant or especially rare, fragile or vulnerable). In addition, the area must require special management attention to protect the relevant and important values (where current management is not sufficient to protect these values or where the needed management action is considered unusual or unique), which is addressed in special protective management prescriptions. An ACEC is to be as large as is necessary to protect the important and relevant values. Manual 1613, Section .22.B.2 (Size of area to receive special management attention). For potential ACECs, management prescriptions are to be “fully developed” in the RMP. Manual 1613, Section .22 (Develop Management Prescriptions for Potential ACECs).

Manual also sets out more specific requirements for how consideration of ACECs should be conducted during the land use planning process. Manual 1613 specifically requires that each area recommended for consideration as an ACEC, including from external nominations, be considered by BLM, through collection of data on relevance and importance, evaluation by an interdisciplinary team and then, if they are not to be designated, the analysis supporting the conclusion “must be incorporated into the plan and associated environmental document.” Manual 1613, Section .21 (Identifying Potential ACECs). However, the treatment of proposed ACECs in the Draft RMP/EIS does not comply with BLM’s obligations.

Comment: For importance criteria, BLM’s ACEC Report correctly states that to meet importance criteria “generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource, or qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.” ACEC Report at 1, and see BLM Manual 1613.1. BLM Manual 1613 further clarifies the disjunctive nature, by stating “one or more of the following” for the various categories of importance criteria. BLM Manual 1613.1. However, in its analysis of relevance and importance for ACECs, BLM systematically ignores the disjunctive nature of this statement, and disqualifies a number of strong candidates for ACEC status for failure to meet one of the criteria for “importance,” when these areas clearly meet other importance criteria.

Response: Per the guidance in BLM Manual 1613, ACEC nominations were evaluated based on the relevance and importance criteria in 43 CFR 1610.7-2 and BLM Manual 1613-1-11 and .12, and Appendix 22 in the RMP FEIS. Areas that met both relevance and importance criteria were considered as potential ACECs in the RMP FEIS alternatives. According to BLM Manual Section 1613.22, “at least one prescription for each potential ACEC must be developed which provides special management attention.” Special management attention is necessary “to protect and prevent irreparable damage.” BLM followed this guidance in the range of alternatives it proposed in the RMP FEIS. Once the impact analysis was completed for Alternatives 1 through 3, it was determined whether or not special management was warranted in the Preferred Alternative/Proposed Plan to protect the relevant and important values of each area. The BLM has determined that special management is not effective or necessary in all proposed ACECs because of the checkerboard land pattern or where existing management is sufficient to protect area values. When special management is not practical or necessary, an ACEC designation is not warranted. Management actions for each SD/MA identified in the Proposed Plan are found in Table 2-1 of the RMP FEIS and are adequate to protect the areas and the values for which they were originally proposed as ACECs.

Comment: The comments of Hollis Marriott of February 19, 2003 on the Great Divide RMP (“Marriott Scoping Comments”) directly address relevance and importance criteria for proposed ACEC sites in the Rawlins RMP revision. Marriott Scoping Comments at 13. reference and request that BLM respond to them in detail in the next round of the NEPA process.

Response: Hollis Marriott comments of February 19, 2003 were considered in the development of the Rawlins RMP DEIS and addressed with other scoping comments received on the Rawlins RMP.

Comment: The 2007 analysis also does not conform to the requirements of the planning rules. The rules require that the BLM ACEC notice include notice of restrictions and general management practices. 43 C.F.R. §1610.7-2(b). The three page notice for the 12 areas considered is at best cryptic. It hardly provides “notice of restrictions,” since it provides little or no information regarding management and any text is entirely out of context. For example, the Historic Trails ACEC refers to “use / activities limited to maintain visual integrity from the trails.” There is no explanation of what this means. Does it mean no roads, no drilling or no new fences? The 2006 supplemental report addresses relevance and significance, not management. Thus, neither the DEIS (FEIS) or appendices and supplements disclose the restrictions that will apply along the 2- mile buffer.

BLM has already acknowledged that VRM Class II is a “moderate” rather than a minor restriction. Neither adjective provides notice as to how the restriction will operate. What is moderate to one operator, such as changing color, might be major when the color change is accompanied by a change in the size of the project and its location.

Comment: This notice is entirely inadequate to meet the objective of the planning rules and provides insufficient information to the public. Even in writing these comments, the local governments must draw on their members experience in similar public land situations, BLM policy, and case law to understand the restrictions, since the documents provided by the Rawlins Field office provide so little information.

The remedy is for BLM to actually identify the management restrictions rather than summarize the restrictions in vague and uninformative phrases. For instance, most of the discussion regarding the Historic Trails ACEC refers to limits on mineral development, thereby entirely failing to inform most people in the agriculture industry that water development and vegetation management projects will likely be restricted. The notice does not say that. But the use of the term ‘surface disturbing activities’ and the knowledge that BLM includes in the term surface disturbance digging fence posts and burning brush, leads to the conclusion that it will. The rules require BLM to be more forthcoming regarding the impacts of the restrictions.

Response: The purpose of the Federal Register notice was to notify the public of the additional opportunity to comment on the adequacy of the Rawlins RMP DEIS in relation to our ACEC analysis and not to receive comments on the adequacy of the Federal Register notice to the extent submitted. Regardless of whether all ACEC use limitations were presented in the Federal Register in the detail suggested by the commenter, the information pertinent to the ACEC discussion is contained in the RMP DEIS and RMP FEIS, in detail.

The 2006 report (the Rawlins ACEC Relevance and Importance Criteria Evaluation found on the Rawlins RMP website) presents only the relevance and importance criteria and evaluation and is not required to present “management actions, use limitations, or restrictions.” The management actions and the “need for special management” are presented in the RMP DEIS and RMP FEIS as management actions by alternative in Chapter 2 and as impact analysis in Chapter 4, respectively. The ACEC process is presented in Appendix 22, ACEC Designation Process. The impacts of the various management actions, restrictions, or use limitations on other resources and uses are presented in Chapter 4 of the RMP FEIS.

Comment: Many of the ACECs or other special management areas under consideration include private land purchased by the Wyoming Game and Fish Department (WGFD). BLM and WGFD cooperate pursuant to several Memoranda of Understanding (MOU), including an umbrella MOU adopted in 1994.

Nothing in BLM policy requires or supports an ACEC or other special management designation because the state wildlife agency owns the adjacent land. The history of cooperative management and MOUs are per se evidence that there is no threat of irreparable harm to the resources identified.

Response: The Rawlins ACEC Relevance and Importance evaluation and documentation relied on relevant and important values only and not on whether an agreement or MOU exists with another federal, state or local government entity or whether another government entity owns private property. The presence of MOUs or agreements was mentioned in some evaluations as supplemental information, where they exist.

Comment: Virtually all of the proposed areas are said to have nationally significant or unique crucial wildlife habitat. These statements in each case are simply inaccurate. They reflect the viewpoint of only one cooperating agency to the exclusion of all other evidence. Elk and antelope winter habitat are found throughout southern Wyoming and the planning area. The areas identified for special management are not different from other areas classified as crucial habitat, other than the fact that they are adjacent to or near land owned by WGFD.

This is equally true for wildlife populations. The Colorado River Cutthroat Trout and other native fish are found throughout Wyoming streams. The fact is that most streams have not been surveyed to determine the fish populations. The districts report that the streams do in fact have native fish.

Response: In review of the Rawlins RMP ACEC report, only 9 of 27 proposed ACEC areas identify crucial winter range or big game habitat as a “relevance” value. Only 3 of 27 proposed ACEC areas actually identify crucial winter range or big game habitat as contributing toward meeting both “relevance and importance.” The wildlife habitat management areas (WHMAs) that were considered for ACEC designation in at least one alternative in the RMP contained other relevant and important values as well.

The presence of MOUs or agreements did play a role in the establishment or consideration of WHMAs. The planning guidance for “other BLM administrative designations,” (H-1601-1, Appendix C, III., Special Designations; B. Administrative Designations; (6)), does not address the ACEC requirement for “more than locally significant qualities.” The presence of important wildlife resources, adjacent state ownership of private lands and the presence of MOUs or agreements, all factored into an opportunity for improved multiple use management of the public land resources.

Native fishes of the Upper Colorado River Basin have experienced dramatic declines and several extirpations within the last 100 years. Reasons for these declines include alteration of riverine habitat due to water developments, various land use activities, and the introduction of non-native fishes. Although native fish species such as bluehead sucker, flannelmouth sucker, and roundtail chub occur throughout southern Wyoming, recent status reviews have found that these species only occupy approximately 50% of their historical habitat. Consequently, these species and the Colorado River cutthroat trout (also experiencing declines throughout its range) are listed as BLM Wyoming sensitive species. BLM sensitive species are designated by the State Director, to provide protection to sensitive species and prevent a need for species listing under the Endangered Species Act. In addition, the BLM is signatory to multi-agency conservation agreements intended to protect sensitive native Colorado River species and their habitat throughout their range.

Comment: The [Historic Trails] ACEC is unnecessary because the trails are already designated by Congress pursuant to the National Historic Trails Act and any associated cultural resources enjoy protection under the National Historic Protection Act. The trails however run through the Checkerboard, thus making the area 50% privately owned. ACEC management in alternating sections will affect management of the private lands through denial of, or restrictions on, access through public lands unless conditions, such as seasonal use restrictions and visual resource management, are accepted. This is inverse condemnation and needs to be more accurately disclosed and analyzed.

The 2007 notice also fails to fully and accurately disclose the management restrictions on other land uses and the economic cost of those restrictions. The notice does not mention any impact on livestock grazing operations, when the 2 mile buffer will certainly limit or preclude range projects.

Response: Neither the Overland Trail, Cherokee Trail nor the two wagon roads identified in Table 2-1 in the RMP FEIS have been designated by Congress as protected trails under the National Historic Trails Act. The Trails are not considered for ACEC status in the Proposed Plan. See Table 2-1 in the RMP FEIS. The historic trails and wagon roads would be managed under the existing National Historic Preservation Act (NHPA) protections. The checkerboard land pattern and the current protections provided by the NHPA were paramount in the determination not to include the Historic Trails as an ACEC in the Proposed Plan.

The VRM Class II area along the Historic Trails has been removed in the Proposed Plan (see updated text and maps in the RMP FEIS). The viewshed of the trails, where the viewshed contributes to eligibility to

the National Register of Historic Places, would be protected for both eligible and non-evaluated portions of the trails under the NHPA.

Comment: VRM Class II is a nonimpairment standard. The visual resources in designated wilderness study areas (WSAs) under the Interim Management Policy are managed as VRM Class II. BLM H- 8550-1.

Permittee experience with application of VRM Class II is that vegetation projects, fences, and water developments are restricted or precluded. It also greatly adds to the cost of these projects. BLM needs to respect the fact that the range improvement budget and funds contributed by the permittees are limited. Increasing the cost of each project just for theoretical visual protection will make it more difficult to meet rangeland health standards and disproportionately penalizes the livestock grazing industry.

Comment: VRM Class II cannot be imposed where it is inconsistent with the underlying land management objective. The Vernal BLM office has recently acknowledged that the decision of *SUWA v. BLM*, 144 IBLA 70 (1998) is binding. Wyoming BLM must also follow IBLA decisions.

The extent of the 2 mile VRM buffer cannot be enforced due to the conflicts with underlying land management. *SUWA v. BLM*, 144 IBLA at 86 citing DM 8410-1. The notice assumes that BLM has jurisdiction over all of the land, and it does not. Second, it assumes the land is not leased, and it is. It also assumes that the authorized land uses are consistent with VRM Class II, and they are not.

BLM must revise or drop the 2-mile VRM Class II or document how the land management objectives are consistent with VRM Class II.

Response: The non-impairment standard is a term related to the management of WSAs, not the VRM program. VRM Class II is not a non-impairment standard as suggested by the commenter. VRM Class II is designed to retain the existing character of the landscape. The Interim Management Policy for WSAs states that WSAs are managed as VRM Class I, which is to preserve the existing character of the landscape.

VRM Class II does not preclude development activities, surface disturbance, or facility placement and is a stipulation on some oil and gas leases, a condition of approval, or a use restriction, where applicable. Additionally, as stated in response to an earlier comment, the VRM Class II area along the Historic Trails has been removed in the Proposed Plan. VRM management classes are described in Appendix 25 of the RMP FEIS. The impact analysis has been updated in the RMP FEIS to clarify that VRM Classes II and III would only influence design, location, etc. of range improvements but would rarely preclude development.

Comment: Ferris Dunes/Blowout Penstemon Proposed ACEC - BLM defines its blowout penstemon ACEC based on the presence of the Threatened blowout penstemon and sensitive parabolic dune communities. DEIS at 2-53. These parabolic dune communities extend far more broadly than the 4,020 acres proposed for consideration by BLM DEIS at 2-54. For the Great Divide Basin, Maxell (1973) found that scurfpea and ricegrass communities in the sand dunes contained the greatest kangaroo rat concentrations, and drew the following conclusion: "Kangaroo rats were almost exclusively restricted to the sand dunes and adjacent areas in the Basin" (p. 86). The vegetated sand dunes, active sand dunes, and graminoid-dominated "vernal pond" wetlands in this area all are rated "highest priority" for conservation by the Wyoming Gap study (USGS 1996). Off-road travel for "necessary tasks" should not be allowed, as most of this area is reasonably close to a road.

The unique and isolated biota found in sand dune habitats and the fragility of these communities also dictate that the protected area be as large as possible. Bury and Luckenback (1983, p. 218) observed that “[d]unes often lack adjacent or nearby colonization sources and much of the biota may be endemic,” and made the following recommendations for the conservation of sand dune communities: “A paradigm for the management of desert dune systems should follow the recommendations of Whitcomb et al. (1976), who urge that ecological preserves be kept as large as possible because (1) large areas have low extinction rates and high immigration rates; (2) some taxa require very large areas for survival; (3) preservation of entire ecological communities, with all trophic levels represented, requires large areas; (4) large preserves are a better buffer against human disturbance; (5) large areas are necessary to minimize the predation, parasitism, and competition exerted by species abundant in the disturbed area surrounding reserves; (6) the failures of small reserves have been adequately documented; and (7) because fragmentation is irreversible, a conservative preservation strategy needs to be adopted” (p.219).

Comment: The BLM is considering only 4,120 acres of the Ferris Dunes Proposed ACEC in the DEIS. See DEIS at 3-84, “Blowout Penstemon Area.” Under “Impacts Common to All Alternatives,” BLM states that “surface disturbing activities would be allowed in blowout penstemon potential habitat, which would indirectly affect the future expansion of the population.” DEIS at 4-148. Surprisingly, there is no alternative that would withdraw this area from future mineral leasing or even emplace NSO stipulations (see DEIS at 2-53), even though mineral development is possible the greatest threat to blowout penstemon in this area. The U.S. Fish and Wildlife Service has noted, “these [dunes] areas are particularly vulnerable to disturbance of the vegetation cover caused by a high density of roads or wells....Due to the unique and important nature of these areas and the difficulty in achieving appropriate compensation, the Service recommends avoidance of these areas” (Long 2002). Although these comments were directed at the potential of coalbed methane development in the Sand Hills, they apply equally to conventional oil and gas development in the Ferris Dunes. Furthermore, surface disturbance associated with lands and realty management, livestock grazing management, and minerals management that occurs within the Blowout Penstemon Area has the potential to disturb and degrade blowout penstemon potential habitat. This could in turn reduce species recruitment and the amount of area available for expansion of the population.

Comment: DEIS at 4-149. Even under the most protective alternatives, “surface disturbing and disruptive activities would still affect the future expansion of the population....” DEIS at 4-150. It is absolutely unacceptable that the BLM has considered no alternative that would prevent such a limitation on the population’s future expansion. The blowout penstemon is one of the rarest plants in Wyoming, and possibly one of the rarest plants in North America. Its presence on the Endangered Species list should make the BLM’s Number One priority the recovery and expansion of this species. The fact that these impacts are common to all alternatives is indicative of the fact that the BLM has failed to consider a sufficiently broad range of alternatives.

Response: The Blowout Penstemon Proposed ACEC has been expanded from 4,020 acres to 17,050 acres in all alternatives to address the issue of future expansion and connectivity of known populations of blowout penstemon in the RMP FEIS. The blowout penstemon area is located in an area with low development potential for oil and gas production; and therefore, there is little potential for such development to impact the blowout penstemon population. Occupied habitat would be open to oil and gas leasing with an NSO stipulation to protect this species. Locatable mineral potential within the blowout penstemon area is low; therefore, such impacts are also anticipated to be negligible. Mineral material potential is low, as the sand quality is common, and numerous alternate sources exist that are more accessible to transportation routes. Additionally, mineral material disposals are discretionary, and permits would be denied if conflicts were identified.

OHV management actions within the Blowout Penstemon Proposed ACEC for the Proposed Plan in the RMP FEIS include a motorized vehicle use limitation to designated roads and vehicle routes and

prohibition of all motorized, off-road use including necessary tasks (Table 2-1 Special Designations and Management Areas).

Achieving the objectives of the Blowout Penstemon Recovery Plan and the establishment of an ACEC would promote the expansion of the plant, and potentially lead to down-listing or de-listing of blowout penstemon as an endangered plant.

Comment: Based on what is known about the penstemon, it would seem that the proposed acreage is based on planned expansion not the resources necessary to protect the blowout penstemon. Under the Endangered Species Act, the penstemon is protected wherever it is found, which is generally in sandy sites or heavily grazed areas. The proposal does not explain the existence of threat given the ESA listing and status as an endangered species in Wyoming, whether it is in fact found on the enlarged acreage, or the management planned for an ACEC that is now quadrupled in size.

The 2007 notice also fails to identify the land use activities that will be restricted or precluded. For example, the notice fails to discuss whether range projects such as livestock tanks or reservoirs will be precluded.

Response: The acreage of the Blowout penstemon ACEC in the Proposed Plan has been expanded to encompass additional occupied habitat adjacent to the west side of Pathfinder Reservoir and additional potential habitat in the vicinity of occupied habitat. Both the occupied habitat and potential habitat make up the natural system that supports the ACEC designation. 43 CFR 1601.0-5 Definitions, Areas of Critical Environmental Concern states that ACECs are areas within the public lands where special management is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards.

The proposed ACEC includes both the occupied and potential habitat of an endangered plant species and is only one aspect of the endangered species program. The FWS is also responsible to develop “recovery plans” which allow for expansion and recovery of an endangered species to the point that the endangered species could be removed from the list. The Blowout penstemon ACEC as identified in the Proposed Plan is intended to address expansion as well as recovery.

Comment: The management objectives [Upper Muddy Creek Watershed/Grizzly] refer to protecting native fish species. The truth, however, is that the native, indigenous species are found throughout southern Wyoming. LSRCD experience is that when WGFD or BLM actually inventories the streams, they find native fish not thought to be present. More importantly, BLM has not thoroughly inventoried the tributary streams within this watershed. Native fish are found throughout the Yampa and Little Snake Rivers. BLM would probably find more fish if the streams were actually inventoried.

Any decline in native fish needs to be explored. There has not been any analysis of the impacts of WGFD sport fish stocking program which includes predators to native fish. Certainly experience in Idaho showed that the introduction of brook trout played a direct role in the loss of salmon in the upper spawning habitat. Similar impacts have occurred in most western states where sport fish prey on native fish.

Response: Native fishes of the Upper Colorado River Basin (UCRB) have experienced dramatic declines and several extirpations within the last 100 years. Reasons for these declines include alteration of riverine habitat due to water developments, various land use activities, and the introduction of non-native fishes. Although native fish species such as bluehead sucker, flannelmouth sucker, and roundtail chub occur throughout Southern Wyoming, recent status reviews have found that these species only occupy approximately 50% of their historical habitat. Consequently, these species and Colorado River cutthroat

trout (also experiencing declines throughout their range) are listed as BLM Wyoming sensitive species. BLM sensitive species are designated by the State Director, to provide protection to sensitive species and prevent a need for species listing under the Endangered Species Act. In addition, the BLM is signatory to multi-agency conservation agreements intended to protect native Colorado River species throughout their range. BLM does not control or manage the WGFD sport fish stocking program.

This area has also been recognized as having the largest population of native warm water Colorado River fishes in Wyoming and is one of the only locations where Colorado River cutthroat trout, bluehead sucker, flannelmouth sucker, and roundtail chub occur in the same system. Intensive surveys within the proposed SD/MA have shown that the core populations of sensitive native Colorado River fishes occur within the proposed Upper Muddy Creek Watershed/Grizzly WHMA.

Multi-agency conservation efforts to protect sensitive native Colorado River fishes have and continue to be successful. Successful conservation of these species will result in increased distribution and abundance of species. The overall goal of these conservation measures is to restore viable populations and eventually remove them from sensitive species status. The designation of a WHMA for native Colorado River fishes coincides with conservation agreements and BLM policy for protecting sensitive species.

Comment: Five to six permittees graze the area [Upper Muddy Creek Watershed/Grizzly area]. The notice only refers to restrictions on motor vehicle use. 72 Fed. Reg. at 31092. But the Upper Muddy Creek watershed would prohibit water diversions greater than one acre foot of water. This is a significant restriction on the livestock industry's ability to address potential resource competition between elk and cattle, and to mitigate potential impacts on fisheries and WGFD fishery habitat management. This restriction will remove one of the most important management tools without even disclosing the proposed management restriction contrary to 43 C.F.R. §1610.7-2(b).

The local governments believed that after the cooperator meetings, this condition would be removed. Its return calls into question the fairness of the cooperative process.

Response: In a letter to the cooperating agencies, following a series of meetings to discuss RMP goals, objectives, and management actions, the BLM was clear that this management action would not be removed from the RMP. As excerpted from BLM's letter to the cooperators of July 10, 2007, "The BLM agrees that this management action is rather prescriptive. This management action pertains to the Upper Muddy Creek watershed only and is intended to help preserve the natural flow regimes (amount and timing) and water quality conditions to maintain the sensitive fish species in this drainage." Changes in flow conditions and fragmentation of native fish habitat that can occur with instream reservoirs would be a detrimental impact to native fish (Chapter 4 of the RMP FEIS), and therefore, would not likely be a positive tool to mitigate impacts on these fish as recommended by the commenter. The cooperator's earlier comments expressed concerns about the BLM addressing depletions to T&E fishes downstream. This management action was reworded to clearly address potential storage or loss of greater than 1 acre/foot per year in local systems. This amount corresponds to reservoirs of about 2-2.5 surface acres (See Appendix 11, Section 11.2.1.1). Therefore, since the management action is designed to protect habitat for local native fish, it is not a "depletion" issue for T&E species and a cost/benefit analysis for depletions is not warranted. The text of the management action has been modified to avoid confusion with USFWS "depletion" considerations to address the cooperator's concerns.

Comment: The Upper Muddy Creek watershed is not entirely owned by BLM and WGFD, thus the special management area, water diversion restrictions, and other management restrictions will have significantly greater impacts. The 2007 notice fails to address the lack of public land ownership and the fact that winter range management already restricts many land activities for 5 months out of the year.

The ACEC notice is intended to disclose to the public the management restrictions intended for the proposed special management area. Unfortunately, the notice entirely omits this very significant restriction.

Response: The management actions proposed for the Upper Muddy Creek Watershed/Grizzly Potential ACEC apply to public land only. As stated in Chapter 1 of the RMP FEIS, Table 1-1, footnote 6, “The Rawlins RMP will not include any planning and management decisions for areas where the land and minerals are both privately owned or owned by the State of Wyoming or local governments.” Section 1.2.2, Purpose, states, “The purpose or goal of the land use plan is to ensure BLM-administered lands and resources are managed in accordance with the FLPMA and the principles of multiple use and sustained yield.” Section 1.3, Overview of the BLM Planning Process, states, “RMPs identify BLM’s desired outcomes for public lands and resources.” Table 2-1 of the RMP FEIS clearly identifies the management actions and use restrictions in the Upper Muddy Creek Watershed/Grizzly area. Chapter 4 of the RMP FEIS identifies the impacts to resources and uses from those management actions.

The crucial winter range surface disturbance and disruptive activity timing restriction is not specific to the Upper Muddy Creek Watershed/Grizzly area. The crucial winter range restriction is identified in the wildlife section of Table 2-1 and the impacts of that action on other resources and uses are identified in Chapter 4 of the RMP FEIS.

The Upper Muddy Creek Watershed/Grizzly area is approximately 47 percent public land. Current cooperative management on the Upper Muddy Creek Watershed as well as within individual allotments within the watershed would continue. The large majority of grazing allotments within the RMPPA contain some percentage of private property intermingled with the public lands (Appendix 29 – Range Allotment Information). BLM grazing regulations take into account this commingled use.

Comment: There is no analysis of current and future water needs, life expectancy of current water projects, or the need for such projects. Nor is there any scientific documentation for the need to restrict the exercise of water rights. LSRCD is the conservation district with jurisdiction over the area. The District is actively planning water projects to improve vegetation, habitat, and water quality. These projects would be impaired or impeded if BLM proceeds to adopt the one acre foot rule. More importantly, BLM cannot defend this restriction, on either the law or the facts.

It is disappointing that the notice fails to document the demand for water downstream, the hydrologic functions that would require such a restriction, or recent experience. This new restriction was not discussed in the DEIS, and thus there is inadequate notice to the public. The local governments believed that they had persuaded BLM to abandon it. The more recent response suggests that it has returned.

As the Interior Department Solicitor ruled more than 25 years ago, BLM has no authority to regulate water rights. *Nonreserved Water Rights—United States Compliance with State Law*, M36914 (Sept. 11, 1981) (claims for water rights on federal land must conform to state law).

Instead, the sole discretion to manage water within a state is vested with the State. In Wyoming, it is vested with the Wyoming Water Commission and the State Engineer. Wyo. Stat. §41-1-106

Nor can BLM claim authority to deny a right-of-way permit to a water right holder without inversely condemning the water right. It has long been federal policy that a water right owner is entitled to a right-of-way permit to carry the water to the point of beneficial use. Otherwise, the water right cannot be put to beneficial use.

Comment: There is no analysis of the need to limit water diversions; nor is there scientific data or analysis documenting the need for the limit on water diversions. As the local governments have already shown, tributaries to the Colorado River system must conform to the instream flow needs for endangered fish. See e.g. March 2007 Comments. There has not been any quantification of the need to impose this additional and extreme limit on the exercise of water right exercise nor has there been any analysis of the impacts on other land users.

The LSRCDD must conclude that this restriction is an effort to prevent the District from developing future water projects. In LSRCDD experience the restriction would force permittees or the District to develop small reservoirs that have less benefit, wear out in a shorter time, because the reservoir becomes filled with sediment and must be replaced. In short, BLM is adopting a measure that will actually result in greater expenditure for less benefit. The notice and analysis ignore this very significant cost.

Comment: The management conditions proposed for the watershed impinge on water and land rights of other multiple uses, especially livestock grazing. The proposal would arbitrarily limit water development size, even though BLM has no authority to regulate water developments. Denial of rights-of-way for diversion structures would be an inverse condemnation of the existing water rights and unlawful effort to usurp state control over flowing water.

Response: The management action of concern was addressed in the RMP DEIS as part of Alternative 3, and included the impact analysis of the action on other resources and resource uses. There was never any commitment made by BLM to “abandon it.” This action only applies to lands within the Upper Muddy Creek Watershed/Grizzly area to protect habitat for BLM sensitive fish.

As part of the impact analysis a range of alternatives were evaluated for this action. Under the preferred plan the action would be expected to “...reduce the flexibility of management during periods of drought or require the use of wells, pipelines, and water hauling to provide additional reliable water sources.”

The BLM has no authority to regulate water rights; however, the management of public lands, including the approval of range improvements, granting of ROWs, etc. is clearly within the BLM mandate. Prior to project approval, the environmental consequences of the action must be disclosed to the public, and if project approval would result in unacceptable impacts to other resources or resource uses of concern to the public (such as habitat for BLM sensitive fish), the BLM has the authority to deny or modify the project request.

Part of obtaining a valid water right is the ability to divert or store water. Any new water right would require valid ROW grants from the land management agency for storing or transporting water across public lands. Established water rights and ROWs are honored and would be honored in the future by the BLM according to the terms and conditions and legal constraints required.

Comment: Wyoming law authorizes the WGFD to file for instream flow water rights. Wyo. Stat. §41-3-1001. To date WGFD has not done so, suggesting that there is no quantification of the need for the limit on water diversions. If WGFD cannot document the need for instream flows, then BLM should not be establishing a de facto instream flow.

Response: The BLM is not establishing an instream flow but merely precluding certain discretionary activities on BLM administered lands that have unacceptable environmental impacts. The preferred alternative only applies this restriction in a relatively small area to protect a specific resource (habitat for BLM sensitive fish). Nothing precludes landowners from filing for a storage right with the State of Wyoming and building storage facilities on private lands.

Comment: There is no question that this potential ACEC [Upper Muddy Creek Watershed/Grizzly area] meets relevance and importance criteria. It also covers a major portion of the Wild Cow Creek citizens' proposed wilderness, which also is eligible for protection under ACEC designation. Notably, the Colorado River fishes that are the focus of the ACEC are present not only in Muddy Creek but also in Wild Cow Creek. The southwest quadrant of the proposed ACEC should be expanded to encompass all of the Wild Cow Creek citizens' proposed wilderness; the wildlife values in this area are significantly higher than the wildlife values in the more westerly quadrant of the proposed ACEC (DEIS at Map 2-11), and contains much crucial winter habitat for elk, one of the management goals for the area. DEIS at 2-53. We endorse most of the management prescriptions of Alternative 4 for this area; in addition, at minimum the lands of the Wild Cow Creek citizens' proposed wilderness, big game crucial ranges, and areas within 3 miles of sage grouse leks should be placed under No Surface Occupancy leasing stipulations. WGFD recommended that this entire unit be placed under NSO stipulations, and there is no legitimate reason why BLM could not do so for all new leases.

Response: Although Wild Cow Creek is a tributary to Muddy Creek, the presence of BLM sensitive fish species (e.g., bluehead sucker, flannelmouth sucker, roundtail chub, and Colorado River cutthroat trout) has never been documented in Wild Cow Creek. Muddy Creek, Littlefield creek, and McKinney Creek, all within the proposed ACEC contain one of the last sympatric populations of bluehead sucker, flannelmouth sucker, roundtail chub, and Colorado River cutthroat trout population in the basin. Specifically, the westerly quadrant of the Upper Muddy Creek Watershed/Grizzly proposed ACEC has been a major focus area for the recovery efforts of Colorado River cutthroat trout and the other BLM sensitive Colorado River fish species. All sage grouse leks in the RMPPA would have an NSO restriction of .25 miles and a seasonal surface disturbing and disruptive activity restriction for all nesting habitat once mapped (two mile restriction if not mapped). In addition, the Upper Muddy Creek Watershed/Grizzly area would be closed to new oil and gas leasing under the Proposed Plan in the RMP FEIS.

Comment: The local governments do not object to the Como Bluff ACEC in terms of the merit of the resources. The record, however, fails to adequately document the threats or the actual management impacts to other uses.

Response: Chapter 4 of the RMP FEIS adequately addresses the impacts of management actions and use restrictions on all resources and uses consistent with the level of detail required of a land use plan level analysis. The impacts of management actions were not required to be part of the Federal Register notice.

Comment: The BLM report entirely fails to discuss or disclose the historic character of this property. The JO Ranch meadows are one of the early irrigation projects, and there is a need to rehabilitate irrigation system. The irrigation system is worthy of significant historic protection. Unfortunately the BLM 2006 Supplemental ACEC report omits this element, and refers only to ranch buildings and the risk of hanta virus. It suggests that BLM would fail to protect the irrigation system and allow it to deteriorate. This would violate BLM's obligation to protect historic resources.

Response: Chapter 3 in the RMP DEIS and FEIS, Section 3.13.2 - Sand Hills ACEC and Proposed JO Ranch Expansion description of the JO Ranch values includes mention of the irrigation system. The reference to the irrigation system was left out of the ACEC relevance and importance evaluation and report. This oversight did not affect the outcome of the ACEC evaluation or the inclusion of the Sand Hills/JO Ranch Expansion in the Proposed Plan.

Comment: The JO Ranch buffer of 4226 acres must be excised. The ACEC rules do not authorize additional "buffer areas." The ACEC designation is limited to specific resources that require special management to prevent irreparable damage, not some general buffer area. The record fails to explain why

a buffer area is required, what special management is necessary, or what resources might be found in these buffer areas. In short, no rule or policy allows BLM to just keep expanding an ACEC based on buffers.

Response: The additional acreage is not a buffer. The 4,200 plus acres added to the original Sand Hills ACEC as the JO Ranch expansion includes approximately 1,200 acres acquired in the Pittsburg and Midway Coal Mining Company exchange as well as additional acreage of bitterbrush/big sagebrush unique plant complex similar to that found in the Sand Hills ACEC and described in Chapter 3 of the RMP FEIS as well as viewshed acreage that contributes to the JO Ranch National Register of Historic Places eligibility.

Comment: The LSRCD is very familiar with the JO Ranch. The riparian areas are not significant nor are they unique. As noted above, the irrigated meadows have historical significance. This is not true for the riparian areas that are typical of those found throughout southern Wyoming.

Response: The riparian areas are not necessarily unique; however, riparian areas contribute to only a small percentage of the acreage and contribute to a logical unit for the combined Sand Hills/JO Ranch expansion ACEC. The removal of the riparian areas from consideration in the evaluation of relevance and importance would not have changed the outcome of the evaluation or the inclusion of the Sand Hills/JO Ranch Expansion in the Proposed Plan.

As noted above, the irrigated meadows have historical significance which is an ACEC criteria.

Comment: The notice entirely omits the VRM Class II limits that would again interfere with or restrict development of private mineral rights, existing leases, and ranch operations.

Response: The purpose of the Federal Register notice was to notify the public of the opportunity to review and comment on the ACEC management actions in the RMP DEIS. The complete list of management actions and use limitations for the Sand Hills/JO Ranch Expansion ACEC are presented in the RMP DEIS and RMP FEIS. The impacts of the management actions for the Sand Hills/JO Ranch Expansion ACEC in the Proposed Plan and alternatives are presented in Chapter 4 of the RMP FEIS.

Comment: The presence of sage grouse habitat is not significant or different from other parts of Wyoming.

Response: The greater sage-grouse habitat within this area is not necessarily unique from other greater sage-grouse habitat areas in other parts of the RMPPA, however, greater sage-grouse habitat does occupy the same acreage as the unique vegetation complex and JO ranch lands and viewshed that make up the Sand Hills/JO Ranch expansion ACEC and is one more value to consider in the area. The removal of greater sage-grouse from the evaluation of relevance and importance would not have changed the outcome of the evaluation or the inclusion of the Sand Hills/JO Ranch Expansion in the Proposed Plan.

Comment: The notice refers to surface use restrictions without disclosing the fact that BLM cannot enforce them. BLM cannot deny access to private minerals, *Duncan Energy v. U.S. Forest Service*, 109 F.3d 497, 499 (8 Cir. 1997) (federal agency cannot exercise veto authority to deny right to develop minerals underlying federal surface).

Response: The BLM did not propose any management actions for the Sand Hills/JO Ranch Expansion that would deny access to private minerals. The impact analysis in Chapter 4 of the RMP FEIS does not support the commenter's contention that access to private minerals would be denied.

Comment: The notice fails to address the impacts or management direction as it might affect livestock grazing. Nor does the 2006 supplemental report shed any light on the impacts to ranch operations.

The RMP should expressly state that active grazing and vegetation management will continue.

Response: The management actions in Table 2-1 under either Livestock Grazing or the Sand Hills/JO Ranch Expansion ACEC in the Proposed Plan do not propose a reduction in livestock grazing use. As stated under the management actions common to all alternatives for livestock grazing, the current amounts, kinds, and seasons of livestock grazing use would be authorized until monitoring indicates a grazing use adjustment is needed, as appropriate. The impacts from management actions under the Sand Hills/JO Ranch Expansion in the Proposed Plan can be found in Chapter 4 of the RMP FEIS.

Comment: LSRCD is in the process of cooperating with habitat treatment in the Sand Hills ACEC area. The 2007 notice fails to disclose how the ACEC status will affect livestock grazing use and range improvement projects. As noted above, restrictions on surface use disturbing activities are often applied to range projects. Without being forthright about the impacts, local governments are left to infer that planned projects will undergo expensive modification or will need to be cancelled.

Response: The impacts to resources or resource uses from management actions under the Sand Hills/JO Ranch Expansion in the Proposed Plan can be found in Chapter 4 of the RMP FEIS.

Comment: Sand Hills like JO Ranch overlies private minerals. The notice fails to address what BLM intends to do with respect to these rights over which it has limited jurisdiction. The 2007 notice incorrectly implies that BLM can and will deny surface access.

Response: Nowhere in the management actions for the Sand Hills/JO Ranch Expansion in the RMP FEIS is there a management action that proposes to deny access to private minerals. The impact analysis in Chapter 4 of the RMP FEIS does not support the contention that access to private minerals would be denied. The BLM, as the commenter points out, does have limited jurisdiction to influence the timing and method of operation and sequence of development in situations where the BLM has an interest in the surface or controls access to the private minerals. The BLM has reviewed the records and there are no private minerals within the boundary of the original Sand Hills portion of the Sand Hills/JO Ranch Expansion. The only private minerals are found under the JO Ranch Expansion acquired lands.

Comment: We concur with BLM's finding that the Sand Hills ACEC meets relevance and importance criteria, and concur with the agency's proposal to retain and expand the ACEC to include the JO Ranch, a historic property, as well as buffer areas. DEIS at 2-36. Due to the fragility of sand dune vegetation communities, the sand dune portions of this ACEC should be placed under NSO stipulations at minimum to prevent surface disturbing activities which might cause very long term damage to the dune system.

Comment: In addition, the sand dunes area should be closed completely to motor vehicles. This area has had a great deal of problems with illegal off-road vehicle use off existing roads, and BLM's current management (vehicles restricted to existing roads) has failed to prevent resource damage resulting from off-road travel in this area. Simply limiting vehicle use to designated roads and trails is not a meaningful departure from past management, which has not worked due to a lack of compliance from a significant proportion of motorized recreationists. Complete closure of this limited area to motorized use (including existing two-tracks) would prevent access for illegal use, which is provided currently by two-tracks open to motorized use. Having tried restricting vehicles to the existing routes, and due to the failure of this management option, BLM should try closing the area off as the minimum management needed to protect the sensitive resources of the area. It is noteworthy that BLM has yet to consider this reasonable

alternative management scheme in any of the RMP alternatives in order to minimize environmental impacts pursuant to NEPA.

Response: The commenter supports ACEC designation for this area and this area is considered for ACEC designation in the Proposed Plan in the RMP FEIS. The impact analysis supports the management actions presented under the Proposed Plan in the RMP FEIS. The development of a transportation management plan has been deferred until after the RMP is completed. The Sand Hills are designated as “limited to designated roads and vehicle routes” under the Proposed Plan in the RMP FEIS and the transportation plan will establish which routes will remain open to use and which will be closed. The fact that this area is currently leased for oil and gas development makes the likelihood of a complete closure to OHV use an unreasonable and unrealistic management option.

Comment: The local governments support denial of ACEC status or other special management for Jep Canyon. There is no rational basis for the special management of this area.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: BLM correctly concludes that the crucial elk winter range and raptor nesting sites in Jep Canyon meet the “relevance and importance” criteria for ACEC designation because they are a wildlife resource that is fragile, sensitive, and vulnerable to adverse change. ACEC Report at 6-7. This ACEC has been designated since the approval of the 1990 Great Divide RMP, and BLM has managed it in accordance with federal law and policy over the past 17 years. The decision to designate this area as an ACEC was a decision that falls within the authority of BLM to create, and indeed this ACEC is considered for continued designation in the Rawlins RMP DEIS. DEIS at 2-39. The wildlife and ecosystem values of this area are less than those found in other proposed ACECs, such as the Powder Rim and Ferris Dunes proposed ACECs, but nonetheless we recommend that this area be retained as an ACEC. In order to meet the management goals established for this area, elk crucial range and areas within 1 mile of raptor nest sites need to be leased only with No Surface Occupancy stipulations in order to protect these sensitive resources regardless of whether this area is managed as an ACEC or a wildlife habitat management area. It is important to note that elk in similar habitats have been shown to avoid areas within 0.6 mile of roads and wellpads in summer and within 1.2 miles of roads and wellpads in winter (Powell 2003, Powell and Lindzey 2004, Sawyer and Neilson 2005).

Response: The area is considered for continued ACEC designation only in Alternative 1 in the RMP FEIS. The area is considered for WHMA status in the Proposed Plan in the RMP FEIS. The manageability of the area as an ACEC under the current checkerboard land pattern remains problematic.

Comment: BLM has found this area [Shamrock Hills] to meet relevance and importance criteria based on the importance of raptor nesting concentrations in this area. To what extent are raptors still using this area for nesting? How many nest sites remain active, and for what species? If this area remains an important concentration area for nesting birds of prey, then it should be retained in ACEC status. There is no reason to remove the requirement for plans of operations of 5 acres or less in this ACEC (DEIS at 2-41); indeed, the presence of either an ACEC or raptor concentration area would prevent the legal use of Categorical Exclusions for APD approval because the rebuttable presumption of no significant impacts would necessarily be contradicted. This provision should be modified to match current management in the final decision. BLM should consider NSO provisions for energy development in this unit regardless of ultimate choice of designation, and we recommend that BLM apply this level of protection to the area.

Response: Regardless of the current level of raptor use, the practicality of managing the area as an ACEC under the current checkerboard land pattern remains highly questionable. Management actions in the area

to protect raptor habitat are being continued in the Proposed Plan. The area is not considered for ACEC designation in the Proposed Plan in the RMP FEIS.

Comment: Stratton Sagebrush Steppe - This area has been the site of burning and other vegetation treatments to evaluate response of sagebrush to manipulation. It is not, however, unique as sagebrush is found in other high altitude sites throughout Wyoming.

This area is a research site which is quite different from an ACEC or other special habitat management area.

The ACEC process has not included any hydrologic studies of the area.

As is true for the other ACEC areas, the 2007 notice fails to disclose and discuss the direct and indirect impacts on current livestock grazing use.

The area is managed for sagebrush and this will likely limit range projects for livestock, e.g. placement of water and vegetation management.

The MOU with WGFD is sufficient management.

Response: The presence of sagebrush vegetation was not an important consideration in the evaluation of the Stratton Sagebrush Steppe Research Area for either ACEC designation or other management area consideration. The ACEC relevance and importance evaluation concentrated on the historic nature of the research area as well as the future opportunities to study high altitude sagebrush ecosystem interactions. The impacts of the Stratton Sagebrush Steppe management actions on other resources and resource uses can be found in Chapter 4 of the RMP FEIS. The impacts of management actions were not required to be part of the Federal Register notice.

Comment: We concur that the Stratton Sagebrush Steppe location meets relevance and importance criteria for its scientific value, but high-altitude sagebrush shrubsteppe is more widespread in the planning area than mountain plover nesting habitat, so it is unclear why BLM concluded that the much rarer mountain plover nesting habitat did not meet importance criteria. NSO stipulations were considered for the Stratton Sagebrush Steppe ACEC (DEIS at 2-42); this is one of the few ACECs where such measures, advisable for all ACECs, are considered.

Response: The Stratton Sagebrush Steppe Research Area met relevance and importance for the research and historical research nature of the area and not specifically for the sagebrush steppe vegetation community.

Comment: The Chain Lakes are dry, there are only playas which occasionally fill with water. The 2006 Supplemental Report incorrectly describes these areas as wetlands. They are not wetlands as that term is defined. *Rapanos v. United States*, ___ U.S. ___, 126 S.Ct. 2208 (2006). The occasional water left after a rainfall does not make the site a lake or wetland. There is in fact no flowing water.

Nor are the soil, vegetation, and geologic features unique. Instead, this area resembles many other sagebrush steppes in southern Wyoming where water may collect after precipitation. Other parts of southern Wyoming also have alkaline soils where salt brush grow and depressions that hold water after rain or snow, e.g. north of Hiawatha along Highway 430. The vegetation is also homogenous.

Comment: While WGFD owns the base property [Chain Lakes], there are active grazing permittees, who signed 5 year contract for sheep. Restrictive management that would apply to the ACEC or other

protective classification would impair the ranchers' ability to graze the area and would abrogate the contract.

Response: The Comprehensive Management Plan for the Chain Lakes Wildlife Habitat Management Unit (Habitat Management Unit No.33, January 1, 1983) states that approximately 4,000 acres of aquatic and semi-aquatic habitat are included within the Chain Lakes antelope winter range, all situated within the Chain Lakes proper. These alkaline lakes are supplied by surface runoff and have no outlet or appreciable flow. There are locations within the Chain Lakes that are inundated with water more than a month in an average year, have plants that are adapted to saturated conditions, and according to historical records of these wetlands, hydric soils are most definitely present. Wetland riparian areas are generally classified as lotic or lentic; lotic refers to flowing waters and lentic refers to static waters. Both of these are considered wetlands when they have the hydrologic regime, plant community and soils that indicate saturated conditions.

The values considered for the Chain Lakes Habitat Area include migration corridors for antelope, providing movement to the south and the west, antelope use of the area during periodic severe winters, and the presence of a unique alkaline desert natural wetland plant community which is not common and which may contain rare or sensitive plants. The area is also known to contain mud pots, a rare geological feature.

The impact analysis in Chapter 4 of the RMP FEIS for management actions identified for the Chain Lakes WHMA in the Proposed Plan does not support the commenter's conclusion that management actions would impair the livestock grazing permittee's ability to utilize the area.

Comment: We support the establishment of this ACEC [Chain Lakes Area] (DEIS at 2-42), and urge the BLM to consider No Surface Occupancy limitations on mineral development, as provided in the Western Heritage Alternative. This alternative for ACEC management is not currently considered in any of the 4 alternatives in the DEIS, yet remains a fully reasonable alternative.

Response: The Chain Lakes area is not considered for ACEC designation in the Proposed Plan in the RMP FEIS. See Section 2.3.3 Alternatives and Management Options Considered But Eliminated From Detailed Analysis for discussion of why the Western Heritage Alternative in general, and large acreage of NSO, in particular, are unreasonable from the land management standpoint.

Comment: Big horn sheep [Laramie Peak] are found throughout Wyoming. The herds in this area are not genetically unique or otherwise threatened. Thus special management area designation for this area cannot be justified.

The notice fails to adequately address the fact that sheep grazing on existing sheep permits in this area will be prohibited. This is a significant impact and yet entirely omitted contrary to 43 C.F.R. §1610.7-2.

Response: The Laramie Peak HMP was created by a signed agreement between the BLM (Casper and Rawlins Field Offices), WGFD, and the USFS in 1994-1995 to restore, improve, and enhance habitat conditions for bighorn sheep and other wildlife species. The BLM portions of the entire HMP area contain crucial winter habitat for bighorn sheep, elk, and mule deer.

Although the bighorn sheep in the Laramie Peaks area are not genetically unique or otherwise threatened, the goal of the HMP is to improve the distribution of bighorn sheep populations and associated genetic diversity that is essential for maintaining a reservoir of bighorn sheep throughout the state and region.

Diseases, predators, fire suppression, decreased habitat quality (e.g., restricted travel corridors, overabundance of dense conifer stands, lack of good quality forage), competition, human encroachment, and stress have all contributed to the decreased bighorn sheep populations. Over the years, the WGFD, BLM, USFS, environmental groups (e.g., Foundation for North American Wild Sheep), and the general public have expressed concern over the low population growth and recruitment of sheep due to these factors. These sheep sub-herds are becoming more and more isolated in nature, which tends to decrease genetic variability and leads to the overall reduced condition of the population as a whole.

The implementation of the Revised Guidelines for the Management of Domestic Sheep and Goats in Native Wild Sheep Habitats is not isolated to the Laramie Peak Area. This action is not a specific “special management” action for the Laramie Peak area. These guidelines apply to all BLM lands where bighorn sheep are located. The impacts of these guidelines are discussed in the Livestock Grazing impacts section of Chapter 4 in the RMP FEIS.

Comment: The area’s importance [Red Rim/Daley] as antelope winter range is significantly less than what it is described in the 2006 Supplemental ACEC Report. Antelope only use the winter range about once a decade.

As energy development continues, the winter range will be less important. Antelope tend to benefit from oil and gas development, including like the plowed roads and fewer predators.

The MOU establishes the special management, thus abrogating the need for either ACEC status or special management.

Response: After further consideration, the Red Rim/Daley area may not have met the relevance and importance criteria solely on antelope crucial winter range, however it should be pointed out that under Alternative 4 (Proposed Plan), the Red Rim/Daley area was identified to be managed as a wildlife habitat management area and not as an ACEC.

The Rawlins ACEC Relevance and Importance evaluation and documentation relied on relevant and important values only and not on whether an agreement or MOU exists with another federal, state or local government entity or whether another government entity owns private property. The presence of MOUs or agreements was mentioned in some evaluations as supplemental information, where they exist.

Comment: Like other areas in the planning area, the existence of a management MOU [High Savery Dam] with WGFD negates the need for special management as an ACEC or any other special designation.

As is true for most of the units, the notice and 2006 supplemental report ignore the impacts on current grazing operations. They would be significant, a fact that is true for virtually all of the special management areas.

Response: The MOU for the area is with the Wyoming Water Development Commission. The impacts of the High Savery Dam management actions on other resources and resource uses can be found in Chapter 4 of the RMP FEIS. The impacts of management actions were not required to be part of the Federal Register notice.

Comment: The High Savery Dam site clearly would meet the relevance and importance criteria if big game crucial ranges are present. The High Savery Dam caused major degradation to the resources present in this area, to the point which we would recommend that BLM move this area to the bottom of the priority list for potential ACECs.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: (1) Revise and reissue a notice that conforms to disclosure objectives of National Environmental Policy Act (“NEPA”) and BLM planning rules; (2) Identify private land rights affected by number of acres and value of rights affected; (3) Document the actual threat, if any, to the identified resources; (4) Recommit to multiple use management rather than allowing the gradual and painful erosion of management options available to livestock grazing; (5) Quantify the actual cost of each special management area and the value if resources (water, forage, or minerals) could not be used and the risk of such a loss.

Response: (1) The purpose of the Federal Register notice was to notify the public of the additional opportunity to comment on the adequacy of the Rawlins RMP DEIS in relation to our ACEC analysis and not to receive comments on the adequacy of the Federal Register notice to the extent submitted. Regardless of whether all ACEC use limitations were presented in the Federal Register in the detail suggested by the commenter, the information pertinent to the ACEC discussion is contained in the RMP FEIS, in detail.

(2) Identification of property rights on private lands adjacent to public land that may somehow be influenced by BLM land management decisions is beyond the scope of the RMP. The land ownership pattern created by the westward expansion era homestead laws and land grants created a situation that requires coordination and cooperation of all landowners and land management agencies involved. See Section 2.7.2 Activity Plan Working Groups, for explanation of the types of issues warranting increased coordination and the process that would be initiated to address those issues.

(3) Documentation or listing of the actual threat to resources within each of the SD/MAs or to any part of the RMPPA is not specifically addressed as the commenter suggests. The identification of threats, conflicts etc. is done through the identification of planning issues. Section 1.2.3 Need and Section 1.3.1 Planning Issues in the RMP FEIS elaborate on the process. Planning issues are determined from the demands, concerns, conflicts, or problems involving the use or management of public lands and resources. These issues are usually expressed in terms of the effects that some land and resource uses have on other land and resource uses or resource values.

(4) The BLM manages public lands for balanced multiple-use. The term "multiple-use" as defined in FLPMA means "the management of the 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." This direction indicates that not all uses need to be accommodated in all areas. The alternatives in the RMP DEIS/FEIS reflect this provision. Not all areas would be open to all types of use in the RMPPA. Additionally, not all areas would be open to uses in the same timeframe. Management actions for all resources are provided in the alternatives, including those that provide protection of sensitive resources. The RMP FEIS has been updated to clarify where development would and would not occur (See Summary of Changes between RMP DEIS and FEIS at the beginning of each Chapter in the RMP FEIS). The RMP DEIS and FEIS evaluated all options in detail to assure a balanced approach was recommended in the Proposed Plan in the FEIS that allows opportunities for mineral exploration and development and for adequate protection of sensitive resources. With consideration of the myriad of laws and regulations that influence management of the BLM public lands and the decisions made in previous planning documents that influence opportunities for management actions in the revised RMP, the management actions proposed under the alternatives include varying levels of mitigation and management flexibility to ensure that resource values are protected while allowing for acceptable levels of resource use and mineral development. Additionally, as exploration and production activities proceed, environmental impacts (both short- and long-term) will be evaluated in subsequent NEPA documents.

(5) The level of detail in the economic analysis requested by the commenter is beyond the scope of the RMP. The analysis would be more appropriately conducted at the activity plan level. The impact analysis in Chapter 4 of the RMP FEIS suggests that the risk of loss in opportunity to utilize water, forage, or minerals under the Proposed Plan is low. The Proposed Plan includes tradeoffs. Section 1.2 of the RMP FEIS, Purpose and Need; states, “When there are competing resource uses and values in the same area, the Federal Land Policy and Management Act requires that BLM manage the public lands and their various resources so that they are used in the combination that will best meet the present and future needs of the American people.”

Comment: However, even the agency has contended that BLM retains the ability to value wilderness character and protect it, including through ACEC designations. The Instruction Memoranda (IMs) Nos. 2003-274 and 2003-275, which formalize BLM’s policies concerning wilderness study and consideration of wilderness characteristics contemplate that BLM can continue to inventory for and protect land “with wilderness characteristics,” which are identified as naturalness or providing opportunities for solitude or primitive recreation, and specifically reference ACEC designation. Similarly, in a February 12, 2004, letter to William Meadows, President of The Wilderness Society (copy attached for your reference), 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.” (emphasis added).

As we highlighted in our comments, BLM has acknowledged the threats to lands with wilderness characteristics. BLM notes that the citizen-proposed wilderness areas around Adobe Town (also referred to as the “Adobe Town fringe”) and Ferris Mountains have been determined by the agency to possess wilderness characteristics. DEIS at 2-5. In addition, the Wild Cow Creek citizens’ proposed wilderness also possesses roadless characteristics (implicitly acknowledged by BLM) as well as wilderness characteristics contested by the agency. However, BLM has failed to protect the wilderness values of the broader Adobe Town area by designating it as an ACEC or through other protective management designations and prescriptions.

Response: Per Instruction Memorandum No. 2003 - 275 - Change 1, Consideration of Wilderness Characteristics in Land Use Planning, Attachment 1, Wilderness Characteristics are defined as features of the land associated with the concept of wilderness (naturalness and opportunities for solitude and primitive and/or unconfined recreation) that may be considered in land use planning when BLM determines that the features are reasonably present, of sufficient value (condition, uniqueness, relevance, importance) and need (trend, risk), and are practical to manage. While the citizens’ proposal areas may be reasonably natural and contain opportunities for solitude and primitive and/or unconfined recreation, they are not of sufficient value to warrant management for wilderness character. BLM no longer has the authority to establish new WSAs and the citizens’ wilderness proposals do not meet ACEC relevance and importance criteria, therefore, the areas fall under the general multiple-use management for the RMPPA. Wilderness character cannot be the sole reason or purpose for ACEC designation. The general management actions in Table 2-1, Detailed Comparison of Alternatives are adequate to protect resource values in areas outside of special designations/management areas.

Comment: Courts have confirmed the BLM’s obligations to consider the value of wilderness characteristics and the potential impacts of decisions on this resource when making land use planning decisions. 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, then enjoined any implementation of the decision until the agency reinventoried the lands at issue and prepared an environmental document taking into account the impacts of its decisions on wilderness values. In *Oregon Natural Desert Association v. Rasmussen*, CV 05-1616-AS, Findings and Recommendations (D.Or). April 20, 2006 – Attached); Order

(D.Or). December 12, 2006 – Attached), 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:

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 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)

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 the Rawlins RMP.

In the most recent ruling on the Utah Settlement challenge (State of Utah v. Norton, Case No. 2:96-CV-0870, Order and Opinion (D.Utah September 20, 2006)), Judge Benson found against the Conservation Groups for a number of reasons, including agreeing with the legal interpretation of FLPMA put forth by the State of Utah and the BLM (a finding we continue to dispute). However, the ruling also justifies the court's interpretation by finding that the agency can provide virtually the same protection for lands with wilderness characteristics through administrative decisions as it can through designation of new WSAs, with the only material difference being that, while the agency can alter its own management decisions, only Congress can change a WSA designation. The court stated: “Both Utah and the BLM acknowledge that the BLM has the discretion to manage lands in a manner that is similar to the non-impairment standard by emphasizing the protection of wilderness characteristics as a priority over other potential uses.” Order and Opinion, p. 41 (emphasis added - excerpt Attached).

In a subsequent briefing to the U.S. Court of Appeals for the 10th Circuit, the Department of the Interior and the BLM reiterated that “the settlement does not preclude BLM from inventorying public lands for wilderness-associated characteristics” and that “the land management decision obtained through FLPMA § 202 process may resemble management under FLPMA § 603's non-impairment standard.” In discussing how BLM will manage lands with wilderness characteristics, the brief refers to the “BLM's discretion under FLPMA § 202 to preserve their wilderness-associated characteristics.” Brief of the Federal Appellees, State of Utah v. Kempthorne, Case No. 06-4240 (February 26, 2007), pp. 40, 43 (emphases added - excerpt Attached). Similarly, the Rawlins Field Office can and should protect lands with wilderness characteristics from the damage likely to result from ongoing oil and gas development (including by imposing best management practices on already leased lands and by committing to no future leasing) and uncontrolled ORV use, both of which are likely to occur if these activities are permitted to occur on lands with wilderness characteristics.

The importance of protecting the Adobe Town area has and continues to be highlighted throughout the BLM's revision of the Rawlins RMP. BCA, with the endorsement of seven other conservation groups, has petitioned the Wyoming Environmental Quality Council (EQC) to designate the entire over 180,000 acres of the Adobe Town area as “Very Rare or Uncommon.” (Docket No. 07-1101; Petition Attached).

Very Rare or Uncommon status is given to “those areas of the state which are very rare or uncommon and have particular historical, archaeological, wildlife, surface geological, botanical or scenic value.” W.S. § 35-11-112(a)(v). The EQC unanimously voted to approve a full hearing for the petition, signaling that it met all the criteria for consideration. Further evidencing its serious consideration of the Petition, the EQC will be conducting a fly-over tour, followed by a ground tour of the Adobe Town area (<http://deq.state.wy.us/eqc/index.asp>). Governor Freudenthal has repeatedly expressed his desire that the values of the greater Adobe Town area be protected. Further, the AFL-CIO has evidenced its support for protecting this area, including in a November 10, 2006, petition to withdraw all of this area from future oil and gas leasing. Wyoming Game and Fish Department recommended that Wilderness Study Areas should be granted ACEC status as a safety net in case of Congressional release (WGFD 2005, p. 26-27).

Response: Comments are not specific to the ACEC process, are targeted at wilderness, and/or are not relevant for consideration in the RMP FEIS (e.g.; the State of Wyoming’s Very Rare or Uncommon designation) (Wilderness Study Area specific comments are addressed previously in this appendix).

Comment: As detailed in our previous comments and in the attached Petition, the Adobe Town area possesses significant geological formations, abundant fossil resources, historical and prehistoric sites and features, rare and sensitive (including crucial) wildlife habitats, and scenic values comparable to or eclipsing existing national park units. These values include:

the incredible formations in the escarpments of the Adobe Town and Skull Creek Rims, Haystacks, and Willow Creek Rim, which also contain fossilized wood and other paleontological resources rich concentration of archaeological sites from 12,000 years of occupation raptor nest sites, sage grouse lek sites, and big game crucial winter ranges unparalleled scenery.

Based on the above and other resources and values detailed in our previous comments and the attached Petition, the Adobe Town area meets the relevance and importance criteria for ACEC designation. This conclusion is supported by other independent surveys, including:

Inventory of Significant Geologic Areas in the Wyoming Basin Natural Region (McGrew et al. 1974), compiled under contract with the National Park Service, in which the authors noted that “The greatest natural value of this area is that it is still a ‘howling wilderness.’” (at p. 187).

Potential Natural Landmarks in the Wyoming Basin (Knight et al. 1976), which rated the area as having the highest rating for ecological and geological values, a rating that reflects “high degree of national significance, recommended without reservation.” at pp. 216-218.

A 1979 assessment by the National Park Service and the Heritage Conservation and Recreation Service, which identified the resources of the Washakie Basin as possessing nationally significant and threatened natural-ecological-geological features and listed the basin as a possibility for new study and potential inclusion as a national park, underscoring the outstanding natural attributes of the area.

Comment: The Adobe Town area requires special management attention to protect its values as well. Geological, paleontological and cultural resources are irreplaceable. Raptor nest sites, sage grouse lek sites, and big game crucial winter ranges are exceptionally sensitive because even temporary disturbances can lead to nest failure (for the birds) or displacement of big game onto marginal ranges where they may not be able to survive. Aggressive oil and gas development, off-road vehicle use or other intrusive activities will damage the naturalness of the landscape and related infrastructure will impair its scenic values.

Comment: Since an ACEC is to be as large as is necessary to protect the important and relevant values. Manual 1613, Section .22.B.2 (Size of area to receive special management attention), the ACEC for the Adobe Town area should include the approximately 180,000 acres detailed in the attached Petition.

Comment: Recommendations: BLM should designate the greater Adobe Town area (i.e., the Adobe Town citizens' proposed wilderness, 180,900 acres) as an ACEC to protect its wilderness characteristics, as well as its many other vulnerable and irreplaceable values, detailed above. BLM should also consider designating other ACECs to protect lands with wilderness characteristics, particularly the Wild Cow Creek citizens' proposed wilderness. These ACECs should include management prescriptions, such as closure to future oil and gas leasing (and/or stringent conditions of approval for already leased lands, as well as commitments to no future leasing) and limiting motor vehicles to designated roads, that will protect wilderness characteristics.

Response: The BLM completed an ACEC relevance and importance criteria determination as per BLM guidance in BLM Manual 1613 and concluded that the Adobe Town fringe area (the approximately 100,000 acres of the citizen's wilderness proposal that surrounds the existing BLM Adobe Town WSA) does not meet both relevance and importance criteria and was not considered in the RMP FEIS alternatives. No additional protection to the Adobe Town WSA would result from considering the existing Adobe Town WSA (80,000 acres) for ACEC designation.

Wilderness character is not a component of either relevance or importance in BLM Manual 1613. As per BLM Manual 1613, wilderness character can be managed when other relevant and important resources are present to warrant designation as an ACEC. Wilderness character cannot be the sole reason or purpose for ACEC designation.

Should the Adobe Town WSA or any other WSA within the RMPPA be released from wilderness consideration by Congress, the BLM would, at that time, complete a plan amendment to determine appropriate management or special designation to protect the values present. Meanwhile, the WSA status continues to provide protection for all WSAs.

The BLM has not proposed to allow 'off-road' vehicle use within the Adobe Town fringe in the RMP FEIS. The area is identified as OHV use limited to either existing roads and vehicle routes or designated roads and vehicle routes. The specific management decisions would be made following the approval of the Rawlins RMP and would include public input.

The BLM established the Adobe Town Dispersed Recreation Use Area (238,970 Acres) in the RMP FEIS. The dispersed recreation use area would be a priority for reclamation after oil and gas development ceases so as to return the area to the near primitive recreational settings and experiences (Table 2-1 Recreation and Visitor Services, RMP FEIS Chapter 4 Recreation, Map 2-16, Appendix 37) available in the area. BLM management actions for the dispersed recreation use area would include a comprehensive travel management plan, visual resource management, and best management practices in the form of conditions of approval, etc., for any proposed land uses, such as oil and gas activities.

Comment: BLM correctly notes that Powder Rim meets or exceeds many of the relevance criteria for ACEC designation. An additional relevance criterion not noted by BLM under the category of "fish and wildlife resource" is the fact that the Powder Rim offers year-round core habitat for the Petition Herd, one of only two desert elk herds in Wyoming. An additional relevance criterion under "historic, cultural, or scenic value" not noted in the ACEC Report are the presence of Native American petroglyphs in the area, which also merit special protection. Also, under "natural system," BLM Sensitive Species including the ferruginous hawk, greater sage grouse have been documented in this area.

Response: The additional relevance criterion mentioned by the commenter do not change the BLM determination that the Powder Rim area does not meet the "importance" criterion and therefore, does not warrant consideration as an ACEC in any of the alternatives in the Rawlins RMP.

Comment: BLM's "importance" analysis contains several important mistakes which invalidate the analysis [Powder Rim]. There are several juniper obligate songbirds found in this potential ACEC rated "S1" (critically imperiled statewide) including the western scrub jay, juniper titmouse, bushtit, and Scott's oriole (Keinath et al. 2003). Plants rates as 'S1' present in the Powder Rim proposed ACEC include *Penstemon gibbensii*, *Androstephium breviflorum*, *Atriplex wolfii*, *Boechera selbyi*, *Erigeron compactus* var. *consimilis*, and *Populus deltoides* var. *wislizenii*. Marriott Scoping Comments, Cherokee/Powder Rim appendix. The presence of these species in the juniper woodlands of the Powder Rim gives the area statewide importance (which is more than local importance), meaning that the Powder Rim absolutely meets the "importance" criteria for juniper obligate songbirds, even though juniper habitats may be abundant outside Wyoming. Secondly, the Powder Rim contains 2 of only 3 known Gibben's penstemon populations in the state. This plant is rated G1/S1 (critically imperiled at the global and state levels, Keinath et al. 2003), making this sensitive resource a globally important one, absolutely meeting the "importance" criteria for ACEC designation. Of note, all species rated 'G1,' including Gibben's penstemon, were recently petitioned for listing under the ESA.¹ Third, the presence of one of only two desert elk herds in Wyoming, which spend all year in desert environments without migrating to conifer-dominated montane habitats (the other being the Steamboat Mountain herd), makes the Powder Rim meet the "importance" criteria for ACEC designation.

Comment: Furthermore, the area contains elk crucial winter range and raptor nesting areas, two categories of habitat that BLM correctly concluded meet the relevance and importance criteria for the Jep Canyon ACEC. ACEC Report at 7-8. Both elk crucial winter range and raptor nesting areas clearly fall under "fish and wildlife" attributes for relevance and fragile, sensitive, irreplaceable, and vulnerable to adverse change importance criteria. In addition, the Powder Rim features a substantial triple overlap of crucial winter range for elk, mule deer, and pronghorn, the largest such triple overlap within the 11 million acres of the Rawlins Field Office boundary, thereby also satisfying the importance criterion of "rare."

Comment: Recommendations for Powder Rim as an ACEC are supported by the Wyoming Game and Fish Department (WGFD 2005, p. 28-9): Due to the unique vegetation types and its high value to wildlife, we recommend the Powder Rim area be designated as a SMA in this plan or, more appropriately, an ACEC. Telemetry studies have documented mule deer migrating all the way from Atlantic Rim to winter on Powder Rim, and elk move into this area from Colorado. Evaluation of this area as an ACEC should be included in Alternatives 3 and 4 of this plan.

Given the broad support for protecting this area as an ACEC due to its outstandingly high and fragile wildlife values, BLM must at least consider ACEC designation, and should in fact designate the Powder Rim as such in the new RMP.

Response: In compliance with 43 U.S.C. 1712(c)2 and 1702(a), BLM reviewed all nominated ACECs as specified in BLM Manual Section 1613-1. Nominations were evaluated based on relevance and importance criteria in 43 CFR 1610.7-2 and BLM Manual 1613-1-.11 and .12. Areas that met both relevance and importance criteria were considered as potential ACECs in the RMP FEIS. A summary of the ACEC process is located in Appendix 22 of the RMP FEIS. Nominated ACECs that failed to meet both relevance and importance criteria were not considered in the RMP FEIS alternatives.

Juniper obligate songbirds that are found within the Powder Rim area that are rated “S1” include: the western scrub jay, juniper titmouse, bushtit, and Scott’s oriole. Plants present within the area include: *Penstemon gibbensii*, *Androstephium breviflorum*, *Atriplex wolfii*, *Boechera selbyi*, *Erigeron compactus* var. *consimilis*, and *Populus deltoides* var. *wislizenii*. Although these species are located within the Powder Rim area, they also occur in other locations within the state of Wyoming. For example, although two of the three previously known populations of Gibben’s penstemon have been located within the Powder Rim area, other populations have been identified in other areas of the State (i.e., Saratoga, Wyoming).

The vegetation types located within the Powder Rim area are not unique and are found within other portions of the RMPPA. The resource must have substantial significance and value which generally require qualities of more than local significance and special worth, consequence, meaning and distinctiveness.

In review of the relevance and importance forms, the BLM used the elk crucial winter range for the Jep Canyon ACEC as one of the criteria in 1990, but that, in and of itself, was not adequate to meet the importance criteria. This criteria was simply carried forward from the 1990 evaluation to the current Rawlins RMP effort. Neither the Jep Canyon crucial winter range nor the Powder Rim crucial winter range have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change when compared to other crucial winter range. The Jep Canyon ACEC was established under the existing Great Divide RMP in 1990 and the resources listed as important in 1990 also included the raptor nesting concentration area. The Jep Canyon ACEC does meet the relevance and importance criteria for the raptor nesting concentration area alone due to the significant nesting habitat for a variety of raptors. The nesting habitat within the Powder Rim is not considered a nesting concentration area and raptor nests are not found in greater proportions at Powder Rim than in other areas of similar habitat.

Each proposed ACEC’s relevance and importance values are considered on their own merit and every effort was made to be consistent in the evaluation of all proposed ACECs in the Rawlins RMP.

Comment: BLM erroneously concluded that mountain plover proposed ACECs in the Western Heritage Alternative do not meet relevance and importance criteria. BLM argues that mountain plover nesting concentration areas nominated for ACEC status do not meet the relevance criteria for designation, arguing that they do not constitute a “fish and wildlife resource.” ACEC Report at 37. BLM states that these areas are not essential for maintaining species diversity, that plover nesting habitat is abundant elsewhere in the planning area, and that current management protection measures in the planning area are adequate to protect mountain plover nesting habitat. BLM’s assertion that plover nesting habitat is widespread is unsupported. According to plover expert Dr. Stephen Dinsmore, “There have been no detailed surveys of Mountain Plover habitat within this region, and specific factors that contribute to quality nesting habitat for this species are unknown.” Comments of S. Dinsmore on the Great Divide RMP revision, Feb. 3, 2003. Indeed, these nesting concentration areas meet relevance criteria precisely because they represent the best plover nesting habitat in a field office dominated by shrubsteppe vegetation types unsuitable for nesting plover due to this bird’s preference for very low vegetation or even bare ground as a prerequisite for nesting.

Subsequently, Regan Plumb of the University of Wyoming Cooperative Fish and Wildlife Research Unit undertook a survey of mountain plover breeding habitat in the region (Plumb 2004), and found plover nesting concentration areas with substantial numbers of breeding plovers to be limited to a handful of localities (which were subsequently nominated for ACEC status under the Western Heritage Alternative). This study shows that the nesting concentration areas subsequently nominated for ACEC status have special worth in terms of containing the largest concentrations of nesting plovers in the region, thereby

satisfying importance criteria for ACEC designation. In addition, the scientific importance of the Mexican Flats nesting concentration area for repeated scientific study by Fritz Knopf, Plumb, and others is well-known and further contributes to the importance of this proposed ACEC.

In addition, BLM never disputes that plover nesting areas are not fragile or sensitive, merely noting that they are no more fragile or sensitive than other mountain plover nesting habitat. ACEC Report at 38. Here, BLM applies a false standard; if all plover nesting areas are fragile or sensitive, then all plover nesting habitat necessarily meets importance criteria for ACEC designation.

Comment: Current management protection measures are not adequate to protect mountain plover habitat. While it was once believed that the roads and wellpads inherent to oil and gas production were compatible with maintaining nesting habitat for mountain plovers because plovers were found to nest in close proximity to these features (Ellison-Manning and White 2001a,b), the nesting population of plovers in Utah (which exclusively occupied an area that was subjected to full-field development) was subsequently extirpated. Thus, in the final analysis, nesting in close proximity to oil and gas development is correlated with loss of the breeding population. Proposed protection measures in the Rawlins RMP Draft EIS (particularly no surface occupancy for plover nesting areas) should provide the level of protection needed to maintain mountain plover populations if (and only if) these measures are approved in the ROD for the Rawlins RMP. Thus, ACEC measures should incorporate the recommendations of Dinsmore and BCA et al. in Rawlins RMP NEPA comments to put plover nesting concentration areas under NSO stipulations.

Response: The Rawlins RMP DEIS did not propose an NSO restriction under the Preferred Alternative. The BLM reviewed the plover nesting area relevance and importance evaluation and is satisfied that the evaluation accurately reflects the BLM position that the plover nesting areas do not meet both relevance and importance. Alternative management scenarios were presented in the RMP DEIS for management of mountain plover nesting habitat. Existing management was determined to be adequate to protect mountain plover nesting habitat and is presented in the Proposed Plan in the Rawlins RMP FEIS.

Numerous protection measures have been attached to proposed projects located within mountain plover habitat mapped in oil and gas field development project areas since 1998. Oil and gas development projects were priority areas for determination of mountain plover habitat. Since that time, additional mountain plover habitat has been identified in the RMPPA. Current protection measures are sufficient to protect mountain plover habitat. In addition, BLM protection measures have aided in the mountain plover “not warranted for listing” determination made by the USFWS.

Comment: We support establishment of this proposed ACEC [Laramie Plains Lakes], and the provisions for its protection as outlined in Alternative 3. DEIS at 2-49.

Response: Thank you for your comment and your interest and participation in the development of the Rawlins RMP.

Comment: BLM has an affirmative responsibility to protect the Cave Creek Cave itself (not just the resident bat population) under the Federal Cave and Natural Resources Protection Act. In explicably, all alternatives except Alternative 1 would shrink the existing Shirley Mountain Caves SRMA from its present 24,400 acres down to a mere 240-520 acre postage stamp for ACEC consideration. DEIS at 2-48. What is the subterranean extent of the cave system that is the subject of this ACEC nomination? Do all of the underground passages underlie the 240-acre or 520-acre surface area of the proposed ACECs? Have all of the cave passages even been mapped yet? If the answer to any of these questions is “no,” then BLM needs to expand the land area considered for ACEC protection in this case.

Cave systems could be negatively impacted by seismic oil and gas operations (both vibroseis and shot-hole) and drilling. For this reason, in order to meet the management goals of this ACEC, the area should be under special NSO stipulations that also do not allow the wellbore to penetrate the ACEC in or above the strata where the caves occur. In addition, exploratory activity needs to be limited to passive seismic or aerial (“electroseis”) seismic activities, to prevent ground-shaking activities that could cause the collapse of caves or damage to subterranean features such as stalactites and stalagmites.

Response: The BLM agrees that this area requires special management. The Cave Creek Cave ACEC and the Shirley Mountain SRMA are part of the Proposed Plan in the RMP FEIS. A seasonal closure of the cave from October 15 through April 30 for the protection of the bat hibernaculum (in coordination with the Wyoming Game and Fish Department) has been identified for the protection of a variety of bat species. In addition, management actions in Table 2-1, Detailed Comparison of Alternatives in the RMP FEIS provide protection for other wildlife that utilize this habitat. Management actions developed for the protection of wildlife species also protect the natural cave system. The oil and gas management action for the Cave Creek Cave has been updated in the RMP FEIS to include an NSO on the 240 acres open to oil and gas leasing. This action will protect the cave system from oil and gas exploration activity and prevent ground-shaking activities within the ACEC that could cause the collapse of caves or damage to subterranean features such as stalactites and stalagmites.

Comment: We submitted comments on the DEIS in March 2005 which included extensive sections on the BLM’s handling of our white-tailed prairie dog ACEC nominations. Since then, the only responsive document that the BLM has issued is the revised Evaluation of Relevance and Importance Criteria for Existing and Proposed ACECs – BLM Rawlins Field Office (August 2006) report. We did not detect any changes to the evaluation for the White-tailed Prairie Dog Areas in the revised report. Therefore, all of the original concerns that we raised in our March 2005 comments still apply.

Response: Comments received during the 90-day comment period on the Rawlins RMP DEIS were addressed earlier in this appendix.

Comment: Since our previous comments were submitted, much new information has come to light which the BLM must take a “hard look” at before issuing the final RMP. For example, the Wyoming Game and Fish Department’s comments on the DEIS stated: The preferred alternative 4 is not significantly different than Alternative 1 (No action). The current no action policy by BLM likely resulted in the WTPD being petitioned for listing under the ESA...Resource development remains the biggest threat to this species and Wyoming BLM manages the majority of the lands, which this species occupies...We recommend alternative 3 (resource protection) for the entire section. In addition, all 8 WTPD complexes should be mapped by BLM following Biggins et al. (1993) so that BLM may manage and protect this invaluable keystone species (pp. 37-38).

Response: The WGFD contention that BLM action or inaction likely resulted in the WTPD being petitioned for listing under the ESA is not supported by fact. Protection measures implemented by the BLM on prairie dog towns have contributed to the USFWS decision to not list this species at this time (Federal Register/Vol.69, No. 216/Tuesday, November 9, 2004). The WGFD request that all 8 WTPD complexes (proposed for ACEC status) be mapped. According to Biggins et al. (1993) it is suggested that the species is important in relation to black-footed ferrets contrary to the contention further in this comment. The impact analysis in Chapter 4 of the RMP FEIS does not support the need to designate the 8 WTPD complexes as ACECs in order to protect the WTPD.

Comment: Since we submitted comments in 2005, the White-tailed Prairie Dog Conservation Assessment was edited and approved by the Western Association of Fish and Wildlife Agencies (January 2006). Below are relevant excerpts (emphasis added) from the final, approved version which stress the

necessity that the BLM manage oil and gas drilling in white-tailed prairie dog habitat. The four state wildlife agencies that manage white-tailed prairie dogs (including the Wyoming Game and Fish Department), and WAFWA, their umbrella group, have endorsed these positions. The BLM should ensure that it is in conformance with the management recommended here, and that it thoroughly considers the expert advice of the Wyoming Game and Fish Department.

Response: The BLM does coordinate and consult with the WGFD in the management of the public lands as it does with other federal agencies and state and local governments.

Comment: Loss of habitat due to oil/gas development under current Bureau of Land Management policies may be a significant threat. (p. iv)

Comment: Oil and gas development is occurring at an unprecedented rate and because much of this development is occurring on BLM lands, the BLM should incorporate WTPD management into Land Use Plans. The WTPD Working Group recommends that the BLM add the WTPD to their list of sensitive species to insure long-term, effective management of this species. Many BLM Field Offices currently do not consider this species in oil and gas development unless it is associated with black-footed ferret reintroduction efforts. Because of this, the BLM does not address WTPD species-specific needs, but addresses the WTPD as black-footed ferret habitat. In addition, they do not address maintaining habitat for expansion or shifts in occurrence outside of currently mapped colonies. The BLM also addresses impacts at a colony level rather than a complex or landscape level. Finally, RMPs do not address the impacts of road development and the potential for an increase in shooting/direct take of WTPDs as a result of oil and gas development. The WTPD Working Group recommends that the BLM should clearly designate where WTPD habitat protection will be a priority. The Working Group also recommends that BLM WTPD management emphasis be shifted from black-footed ferret management to management of WTPDs as a sensitive species. (p. 50)

Identifying suitable habitat and dispersal corridors among suitable habitat will help evaluate the long-term viability of populations, probability of dispersal among populations, and areas important for conservation. Critical areas identified during these analyses must be incorporated into Land Use Plans (e.g. RMPs) with conservation actions focusing on protecting unoccupied and occupied habitat, protecting corridors for immigration and emigration, and allowing maintenance and expansion of WTPD colonies and complexes. (p. 51)

Comment: Oil and gas development must be designed to minimize adverse impacts on existing WTPD colonies/complexes, and areas identified for expansion of colonies/complexes. To assess impacts at proposed sites, WTPD occupied and potential habitat should be documented prior to development. A minimal analysis should include mapping of WTPD suitable and occupied habitat, use of GIS to determine spatial distribution of these areas, estimate of local population densities, and evaluation of dispersal potential between suitable habitat patches within each complex (e.g. between colonies). Baseline information will help determine whether the loss of occupied and suitable habitat due to resource extraction activities could be compensated for by better managing other suitable habitat within a proposed project site and/or avoiding suitable and occupied habitat entirely by allowing development only in habitat not suitable for WTPD occupation. In addition, project design of oil and gas facilities in and adjacent to occupied and suitable habitat should include location of wells and roads outside of these areas, consideration of directional drilling when wells are proposed within suitable and occupied habitat, timing restrictions of vehicle travel to periods when WTPDs are less active, and regulation of vehicle traffic type. Finally, because knowledge of the effects of resource extraction on WTPD populations is limited, monitoring at sites before, during, and after development should be required. (p. 52)

On federal lands, impacts due to shooting, oil and gas development, livestock grazing, road development, poisoning, and mineral extraction are not addressed by current regulations. (p. 62)

State wildlife agencies and the BLM should cooperate on the development of new RMPs to address the conservation of WTPDs and their habitat with regard to oil and gas development, livestock grazing, poisoning, shooting, and road development. Special protection for large WTPD complexes should be employed by designating them as ACECs or “special management areas” on public lands. (p. 63)

Comment: Oil/gas exploration and extraction - This impact has the potential to rise to the level of a threat to the continued existence of the species, and therefore has the potential to justify listing under the ESA in the foreseeable future.

Oil and gas exploration is occurring at a phenomenal rate on public lands. Since the BLM manages 55% of the land in the WTPD predicted range, significant impacts are possible, primarily during development of oil and gas fields with close well spacing and associated roads. As previously stated in this Conservation Assessment, recent data from Colorado, Wyoming, and Utah indicate that WTPD complexes shift on a landscape scale, possibly in response to plague or other factors not currently identified. Therefore all suitable habitat within and adjacent to complexes must be protected from direct habitat loss on a landscape scale if expansion opportunities are to be retained. Current BLM policies do not adequately protect WTPDs during oil and gas development. With the increased amount of leasing and oil and gas development in the WTPD range (77% of the WTPD gross range in Wyoming has the potential to be impacted by oil and gas development) this could lead to the need for listing the species under the ESA. Revision of BLM Land Use Plans to control leasing and development in WTPD complexes to address prairie dog management needs and maximize habitat potential must be initiated on a state-by-state basis to prevent further, more drastic actions, including listing the WTPD under the ESA. (p. 67)

Comment: The BLM must also consider the WTPD in their Land Use Plans. (p. 69)

Comment: After careful analysis of the information presented in this Conservation Assessment, the WTPD Working Group of the 12-state PDCT believes that while active management and development of conservation strategies for the species and its habitat is needed, justification does not exist for listing the WTPD as threatened under the ESA at the current time. However, the threat posed by oil and gas exploration and extraction may justify listing unless it is addressed on public lands managed by the BLM. It is critical that the BLM, through its Land Use Plans, manage oil and gas leasing and development in WTPD complexes to maximize prairie dog habitat potential. Land Use Plans must be revised on a state-by-state basis and WTPD protection should be initiated in order to prevent further, more drastic actions, possibly including listing the WTPD under the ESA. (pp. 70-71).

Response: The WTPD is considered in the Rawlins RMP. Management actions specific to the WTPD are considered in the Proposed Plan for protection of the WTPD. The WTPD is listed on the BLM Wyoming State Director’s Sensitive Species List. BMPs would be incorporated into all surface disturbing activities within WTPD towns. The impact analysis supports that the management actions in the Rawlins RMP FEIS are sufficient to protect WTPD towns and complexes.

Comment: The BLM is revising RMPs in much of the white-tailed prairie dog’s range, and is handling our ACEC nominations inconsistently, which makes the agency vulnerable to an “arbitrary and capricious” claim.

The Vernal DEIS covers our white-tailed prairie dog ACEC nominations for Coyote Basin, which is a black-footed ferret reintroduction site, just as Shirley Basin is. Every alternative except the No Action

would designate the Coyote Basin area as both an ACEC and a Research Natural Area. The BLM has proposed ACEC/RNA designation under all alternatives because “it would provide positive benefits in the form of preservation of essential habitat for remaining prairie dog populations in the planning area” (Vernal RMP DEIS p. 4-205). The BLM also stated that the designation “would provide essential habitat for the potential reintroduction of the black-footed ferret. The white-tailed prairie dog provides forage for the black-footed ferret and is considered necessary for its successful recovery in the project area” (Vernal RMP DEIS p. 4-205).

Comment: The Little Snake DEIS (January 2007) covers our white-tailed prairie dog ACEC nomination for the Little Snake complex, which has also been approved for black-footed ferret reintroduction. The alternative that includes designation of this ACEC would include No Surface Occupancy stipulations for the entire ACEC.

Response: There is no policy or regulation that requires that the public’s WTPD ACEC nominations need to be addressed consistently across all FOs; only that the BLM ACEC process is followed and justified. The WTPD proposed ACEC in the RFO was addressed according to policy and the determination made that none of the WTPD complexes warrant ACEC designation in the Proposed Plan.

The black-footed ferret population that occurs in the Shirley Basin is a non-essential, experimental population, therefore, this population is not afforded the same protection measures as a listed species in a naturally occurring wild population. Population trends and reintroduction sites fall under the jurisdiction of the WGFD and USFWS.

Comment: We incorporate by reference the comments of March 17, 2005 of Dr. Stephen Dinsmore on the Rawlins RMP DEIS concerning mountain plovers into these comments by reference. Dr. Dinsmore stated “there is strong evidence of a link between the plover and prairie dogs. As such, I recommend that all areas occupied by prairie dogs be specifically withdrawn from consideration for development.” Dinsmore DEIS comments at 2. A no surface occupancy buffer of ¼ mile was recommended by Dinsmore in earlier comments. Scoping comments of S. Dinsmore on the Great Divide RMP revision, Feb. 2, 2003. This recommendation is not reflected as a management option under any alternative; the provisions of Alternative 3 come closest. The Rawlins RMP should designate our nominated ACECs and apply NSO stipulations throughout each. We recommend that a ¼ mile buffer be used as the NSO boundary.

Response: Scoping comments were considered during the development of the RMP DEIS and comments received during the 90-day comment period on the RMP DEIS were addressed earlier in this appendix.

Comment: Since we submitted our previous comments, the U.S. Fish and Wildlife Service has admitted that its finding on our white-tailed prairie dog Endangered Species Act listing petition was illegally manipulated by political appointee Julie MacDonald, and that the Service will move ahead with a 12-month finding on our petition, which indicates that the Service does have substantial information that Endangered Species Act protection for the white-tailed prairie dog may be warranted:

White-tailed prairie dog 90-day petition finding: The field office drafted a positive 90-day finding on a petition to list the white-tailed prairie dog. The finding concluded the information in the petition was substantial and warranted further review of the species’ status. MacDonald revised the document to be a “not-substantial” finding and the Service published the document with her edits. The Service plans to withdraw the “not substantial” 90-day finding and complete the 12-month finding when funds are available.

(U.S. Fish and Wildlife Service Q's & A's: Reviews of Endangered Species Decisions, July 20, 2007, p. 2. Available online at: <http://www.fws.gov/endangered/news/macdonald/ESA.Review.Q&A.FINAL.pdf>)

Under the Freedom of Information Act, we obtained the 90-day finding as it appeared before MacDonald's edits, and the Service originally found that the petition and the Conservation Assessment by the states: clearly identify current and projected threats to the species including mortality and habitat loss, fragmentation, and degradation. We believe further evaluation of the extent of leasing and current and projected oil and gas development is necessary to complete a thorough assessment of the direct, indirect, and cumulative effects of oil and gas development to white-tailed prairie dogs and their habitat. Further evaluation also is necessary to determine if such development is currently or is likely to result in significant impacts to the species either singly or in combination with other factors such as plague. (p. 26 of version showing sections deleted by MacDonald)

Response: The BLM will be responsive to any USFWS finding or designation of a species and responsive to any USFWS consultation when that finding or consultation is complete.

Comment: The Rawlins RMP represents the most significant opportunity the BLM has to demonstrate adequate regulatory mechanisms for the white-tailed prairie dog, and the DEIS completely fails to deliver. According to the figures in the WAFWA-approved Conservation Assessment, the eight nominated white-tailed prairie dog complexes in the Rawlins Field Office account for 54% of the estimated occupied white-tailed prairie dog habitat in Wyoming, and 30% of estimated occupied white-tailed prairie dog habitat rangewide. Considering ACEC designation under only one alternative (which is not the preferred) and proposing to only limit ORV use and apply no other special management to these areas, including the most successful black-footed ferret reintroduction site within the white-tailed prairie dog's range, demonstrates that Endangered Species Act protection will be necessary for the white-tailed prairie dog.

Response: The white-tailed prairie dog is currently listed as a 6840 species and is on the BLM State Director's species list. The reason for this classification stems from the previous proposal to the Service to list WTPD as a T&E species. RFO protects prairie dog towns recognizing that prairie dogs are a keystone species (whether or not potential for ferret reintroduction exists). No firearms are allowed in industry vehicles, avoidance of prairie dog towns occurs whenever possible. Surface disturbing activities are located outside of existing prairie dog towns to protect both the prairie dog and the black-footed ferret. Rarely (less than 1% of the time) is a project located in potential black-footed ferret habitat and then, only after a survey has been completed and black-footed ferrets are found not to be present. Management actions for WTPD identified in the Proposed Plan are found in Table 2-1 of the RMP FEIS and are adequate to protect WTPDs. WTPDs are also on the Wyoming Game & Fish list as a status 3 species.

The black-footed ferret population that occurs in the Shirley Basin is a non-essential, experimental population, therefore, this population is not afforded the same protection as a listed species in a naturally occurring wild population. Population trends and reintroduction sites fall under the jurisdiction of the WGFD and USFWS.

APPENDIX 39—RELEVANT STATUTES, LIMITATIONS, AND GUIDELINES

The following provides a description of the authorities that apply to the selection and implementation of the management actions for the Resource Management Plan (RMP). This is not an all-inclusive list of statutes, limitations, and guidelines, but is a representative list of the types of laws and policy that guide the management of the public land. Additional laws, regulations, and policies are identified in the various appendices for specific resource programs. All laws, regulations, and policies, including Bureau of Land Management (BLM) manuals, handbooks and internal memoranda, would be followed unless otherwise stated.

ENVIRONMENTAL POLICY

The National Environmental Policy Act (of 1969) (NEPA) (42 United States Code [U.S.C.] 4321, et seq.) requires the preparation of Environmental Impact Statements (EIS) for federal projects that may have a significant effect on the environment. It requires systematic, interdisciplinary planning to ensure the integrated use of natural and social sciences and environmental design arts in making decisions about major federal actions that may have a significant effect on the environment. The procedures required under NEPA are implemented through the Council on Environmental Quality (CEQ) regulations at 40 Code of Federal Regulations (CFR) 1500.

Federal Compliance with Pollution Control Standards (Executive Order [EO] 12088) requires that federal agencies comply with applicable pollution control standards.

Protection and Enhancement of Environmental Quality (EO 11514, as amended by EO 11991) establishes the policy for federal agencies to provide leadership in environmental protection and enhancement.

LAND USE AND NATURAL RESOURCES MANAGEMENT

The Federal Land Policy and Management Act (of 1976) (FLPMA), as amended (43 U.S.C. 1701, et seq.), provides for public lands to be generally retained in federal ownership for periodic and systematic inventory of the public lands and their resources; for a review of existing withdrawals and classifications; for establishing comprehensive rules and regulations for administering public lands statutes; for multiple-use management on a sustained yield basis; for protection of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; for receiving fair market value for the use of the public lands and their resources; for establishing uniform procedures for any disposal, acquisition, or exchange; for protecting Areas of Critical Environmental Concern (ACEC); for recognizing the nation's need for domestic sources of minerals, food, timber, and fiber from the public lands, including implementation of the Mining and Mineral Policy Act of 1970; and for payments to compensate states and local governments for burdens created as a result of the immunity of federal lands from state and local taxation. The general land management regulations are provided in 43 CFR 2000, Sub-chapter B.

The General Mining Law of 1872, as amended (30 U.S.C. 22, et seq.), provides for locating and patenting mining claims where a discovery has been made for locatable minerals on public lands in specified states. Regulations for staking and maintenance of claims on BLM-administered lands are listed in 43 CFR 3800.

The Mineral Leasing Act of 1920, as amended (30 U.S.C. 181, et seq.), provides for the leasing of deposits of coal, phosphate, sodium, potassium, oil, oil shale, native asphalt, solid and semisolid bitumen, bituminous rock or gas, and lands containing such deposits owned by the United States, including those in national forests but excluding those acquired under other acts subsequent to February 25, 1920, and those lands within the national petroleum and oil shale reserves. Regulations for onshore oil and gas leasing are provided in 43 CFR 3100.

The Federal Coal Leasing Amendments Act of 1976 (30 U.S.C. 201, et seq.) requires competitive leasing of coal on public lands and mandates a broad spectrum of coal operations requirements for lease management. Coal leasing regulations for BLM-administered lands are provided in 43 CFR 3400.

The Materials Act of 1947, as amended (30 U.S.C. 601–604, et seq.), provides for the sale of common variety materials for personal, commercial, or industrial uses and for free use for local, state, and federal governmental entities. The sales of mineral materials are controlled by the regulations listed in 43 CFR 3600.

EO 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use), signed on May 18, 2001, provides direction to appropriately weigh and consider the effects of the Federal Government's regulations on the supply, distribution, and use of energy. Agencies shall prepare and submit a Statement of Energy Effects to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, for those matters identified as significant energy actions. A Statement of Energy Effects shall consist of a detailed statement by the agency responsible for the significant energy action relating to any adverse effects on energy supply, distribution, or use (including a shortfall in supply, price increases, and increased use of foreign supplies) should the proposal be implemented, and reasonable alternatives to the action with adverse energy effects and the expected effects of such alternatives on energy supply, distribution, and use.

The Taylor Grazing Act of 1934, as amended (43 U.S.C. 315), provides authorization to the Secretary of the Interior to establish grazing districts from any part of the public domain of the United States (exclusive of Alaska) which, in the Secretary's opinion, are chiefly valuable for grazing and raising forage crops; to regulate and administer grazing use of all public lands; and to improve the public rangelands. Regulations for grazing permits and leases are provided in 43 CFR 4100.

The Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901, et seq.) provides for the improvement of range conditions on public rangelands, research on wild horse and burro population dynamics, and other range management practices.

The Federal Noxious Weed Act of 1974, as amended (7 U.S.C. 2814), provides for establishment and funding of an undesirable plant management program, completion and implementation of cooperative agreements with state agencies, and establishment of integrated management systems to control undesirable plant species.

EO 13112 (Invasive Species), signed on February 3, 1999, prevents the introduction of invasive species and provides for their control, as well as to minimize the economic, ecological, and human health impacts that invasive species cause. Under this Executive Order, federal agencies whose actions may affect the status of invasive species shall (1) identify such actions, (2) use relevant programs and authorities to prevent, control, monitor, and research such species, and (3) not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere.

The Wild Free-Roaming Horses and Burros Act of 1971 provides for the management, protection, and control of wild horses and burros on public lands and authorizes "adoption" of wild horses and burros by private individuals. Regulations applicable to wild horse and burro management on BLM-administered lands are provided in 43 CFR 4700.

EO 12548 provides for establishment of appropriate fees for the grazing of domestic livestock on public rangelands and directs that the fee shall not be less than \$1.35 per animal unit month.

The Wilderness Act of 1964 (16 U.S.C. 1131, et seq.) provides for the designation and preservation of wilderness areas.

AIR QUALITY

The Clean Air Act of 1990, as amended (42 U.S.C. 7401, 7642), requires BLM to protect air quality, maintain federal- and state-designated air quality standards, and abide by the requirements of the State Implementation Plans (SIP).

Wyoming Air Quality Standards and Regulations specify the requirements for air permitting and monitoring to implement Clean Air Act and state ambient air quality standards.

WATER QUALITY

The Clean Water Act of 1987, as amended (33 U.S.C. 1251), establishes objectives to restore and maintain the chemical, physical, and biological integrity of the nation's water. The Act also requires permits for point source discharges to navigable waters of the United States and the protection of wetlands and includes monitoring and research provisions for protection of ambient water quality.

Wyoming Water Quality Regulations implement permitting and monitoring requirements for the National Pollutant Discharge Elimination System, operation of injection wells, groundwater protection requirements, prevention and response requirements for spills, and salinity standards and criteria for the Colorado River Basin.

Protection of Wetlands (EO 11990) requires federal agencies to take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.

Floodplain Management (EO 11988) provides for the restoration and preservation of national and beneficial floodplain values, and enhancement of the natural and beneficial values of wetlands in carrying out programs affecting land use.

CULTURAL RESOURCES

The Historic Sites Act (16 U.S.C. 461) declares national policy to identify and preserve historic sites, buildings, objects, and antiquities of national significance, thereby providing a foundation for the National Register of Historic Places.

The National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), expands protection of historic and archeological properties to include those of national, state, and local significance. It also

directs federal agencies to consider the effects of proposed actions on properties eligible for or included in the National Register of Historic Places.

The Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470a, 470cc, 470ee), requires permits for the excavation or removal of federally administered archeological resources, encourages increased cooperation among federal agencies and private individuals, provides stringent criminal and civil penalties for violations, and requires federal agencies to identify important resources vulnerable to looting and to develop a tracking system for violations.

The Native American Graves Protection and Repatriation Act of 1990 (Public Law 101-601) provides a process for federal agencies to return certain Native American cultural items (e.g., human remains, funerary objects, sacred objects, and objects of cultural patrimony) to lineal descendants and culturally affiliated Native American tribes.

Protection and Enhancement of the Cultural Environment (EO 11593) directs federal agencies to locate, inventory, nominate, and protect federally owned cultural resources eligible for the National Register of Historic Places and to ensure that their plans and programs contribute to preservation and enhancement of nonfederally owned resources.

The National Trails System Act of 1968, as amended (16 U.S.C. 1241–1249), establishes a national trails system and requires that federal rights in abandoned railroads be retained for trail or recreation purposes, or sold with the receipts to be deposited in the Land and Water Conservation Fund.

HAZARDOUS MATERIALS

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 9601–9673), provides for liability, risk assessment, compensation, emergency response, and cleanup (including the cleanup of inactive sites) for hazardous substances. The Act requires federal agencies to report sites where hazardous wastes are or have been stored, treated, or disposed and requires responsible parties, including federal agencies, to clean up releases of hazardous substances.

The Resource Conservation and Recovery Act (RCRA), as amended by the Federal Facility Compliance Act of 1992 (42 U.S.C. 6901–6992), authorizes the Environmental Protection Agency (EPA) to manage, by regulation, hazardous wastes on active disposal operations. The Act waives sovereign immunity for federal agencies with respect to all federal, state, and local solid and hazardous waste laws and regulations. Federal agencies are subject to civil and administrative penalties for violations and to cost assessments for the administration of the enforcement.

The Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11001–11050) requires the private sector and federal, state, local, and tribal governments to inventory chemicals and chemical products, to report those in excess of threshold planning quantities, to inventory emergency response equipment, to provide annual reports and support to local and state emergency response organizations, and to maintain a liaison with the local and state emergency response organizations and the public.

WILDLIFE

The Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531, et seq.), directs federal agencies to ensure that their actions do not jeopardize threatened and endangered species, and that through their authority they help bring about the recovery of such species.

The Bald Eagle Protection Act of 1940 (16 U.S.C. 668), amended in 1962 to include the golden eagle, prohibits the taking or possession of and commerce in bald and golden eagles, with limited exceptions.

Fish and Wildlife Coordination Act of 1958 (16 U.S.C. 661 et seq.) provides that, whenever the waters or channel of a body of water are modified by a department or agency of the United States, the department or agency first will consult with the U.S. Fish and Wildlife Service and with the head of the agency exercising administration over the wildlife resources of the state where construction will occur, with a view to the conservation of wildlife resources.

Fish and Wildlife Improvement Act of 1978 (16 U.S.C. 7421) authorizes the Secretary of the Interior and the Secretary of Commerce to assist in training of state fish and wildlife enforcement personnel, to cooperate with other federal or state agencies for enforcement of fish and wildlife laws, and to use appropriations to pay for rewards and undercover operations.

Fish and Wildlife Conservation Act of 1980, as amended, (16 U.S.C. 2901–2911, commonly known as the Nongame Act) encourages states to develop conservation plans for nongame fish and wildlife of ecological, educational, aesthetic, cultural, recreational, economic, or scientific value. The states may be reimbursed for a percentage of the costs of developing, revising, or implementing conservation plans approved by the Secretary of the Interior. Amendments adopted in 1988 and 1989 also direct the Secretary to undertake certain activities to research and conserve migratory nongame birds.

Migratory Bird Treaty Act of 1918 (16 U.S.C. 703–711) manages and protects migratory bird species through consultation with state and local governments and protection of land and water resources necessary for the conservation of migratory birds. Under the Act, taking, killing, or possessing migratory birds is unlawful.

The Sikes Act of 1960 (16 U.S.C. 670a–670o), as amended, Public Law 86-797, provides for cooperation by the Departments of the Interior and Defense with state agencies in planning, development, and maintenance of fish and wildlife resources on military reservations throughout the United States. Public Law 93-452, signed in 1974, authorized conservation and rehabilitation programs on BLM lands. Public Law 97-396, approved in 1982, provided for the inclusion of endangered plants in conservation programs developed for BLM lands. It also defined “cooperative agreements” with states and clarified section 209 concerning purchases and contracts for property and services from states.

WILD HORSES

The Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195) was amended as follows: Sections 1332 and 1333 were modified by the Public Rangelands Improvement Act of 1978 (Public Law 95-514); Section 1338 was modified by the Federal Land Policy and Management Act of 1976 (Public Law 94-579); the Omnibus Parks and Public Lands Management Act of 1996 (Public Law 104-333) added Section 1338a.; and Section 1333 was again modified by the Fiscal Year 2005 Omnibus Appropriations Act (Public Law 108-447). As amended, the Act guides the management of horses by BLM both while on the range and during and after removal from the range.

Regulations at 43 CFR 4700 provide more detailed direction.

In addition, a consent decree entered into between the Bureau of Land Management and the State of Wyoming on August 28, 2003, in United States District Court in Civil Action No. 03-CV-169-D, further directs management in the entire state and, within that, the RFO. The consent decree directs that Wyoming BLM will use its best efforts to achieve and maintain previously established Appropriate Management Levels (AML) in all Herd Management Areas (HMA) in the state, including those in the Resource Management Plan Planning Area (RMPPA).

RELATIONSHIP WITH OTHER PLANS

BLM land use plans and amendments must be consistent with officially approved or adopted resource-related plans of Native American tribes, other federal agencies, and state and local governments to the maximum extent practical, given that BLM land use plans must also be consistent with the purposes, policies, and programs of FLPMA and other federal laws and regulations applicable to public lands (43 CFR 1610.3-2 [a]).

If these other entities do not have officially approved or adopted resource-related plans, BLM land use plans must, to the maximum extent practical, be consistent with their officially approved and adopted resource-related policies and programs. This consistency will be accomplished as long as BLM land use plans are consistent with the policies, programs, and provisions of public land laws and regulations (43 CFR 1610.3-2 [b]).

Section 368 of the Energy Policy Act of 2005 (designation of West-wide energy corridors) is being implemented through the current development of an interagency programmatic EIS. The final programmatic EIS will provide plan amendment decisions that will address numerous energy corridor related issues, including the utilization of existing corridors (enhancements and upgrades), identification of new corridors, supply and demand considerations, and compatibility with other corridor and project planning efforts. It is likely that the identification of corridors in the project EIS will affect the Casper RMPPA, and the approved PEIS would subsequently amend the Casper RMP.

This draft EIS, with its associated descriptions of planning alternatives, is being distributed to other federal agencies, state and local governments, and Native American tribes to provide them the opportunity to identify where specific inconsistencies may exist, and to suggest ways to resolve them.

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